

U.S. DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS & INFORMATION
ADMINISTRATION
OFFICE OF SPECTRUM MANAGEMENT

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COMMERCE SPECTRUM MANAGEMENT
ADVISORY COMMITTEE

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MEETING

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THURSDAY
JULY 10, 2014

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The Advisory Committee met in the
Wiley Rein Law Offices Conference Center,
1776 K Street, N.W., Washington, D.C., at
1:00 p.m., Larry Alder and H. Mark Gibson,
Co-Chairs, presiding.

PRESENT

LARRY ALDER, Co-Chair
H. MARK GIBSON, Co-Chair
AUDREY L. ALLISON, Member
MICHAEL A. CALABRESE, Member
MICHAEL S. CHARTIER, Member
MARTIN COOPER, Member
THOMAS S. DOMBROWSKY, JR., Member
DAVID L. DONOVAN, Member
HAROLD FELD, Member
HAROLD FURCHTGOTT-ROTH, Member
DALE N. HATFIELD, Member (by telephone)
PAUL KOLODZY, Member
ROBERT KUBIK, Member

GIULIA McHENRY, Member
MARK A. McHENRY, Member
JANICE OBUCHOWSKI, Member
ROBERT PEPPER, Member (by telephone)
CARL POVELITES, Member
CHARLA RATH, Member
RICHARD L. REASER, JR., Member
JEFFREY H. REED, Member
DENNIS A. ROBERSON, Member
KURT SCHAUBACH, Member
STEVE SHARKEY, Member
MARIAM SOROND, Member
BRYAN TRAMONT, Member
JENNIFER WARREN, Member

ALSO PRESENT

LARRY STRICKLING, Assistant Secretary of
Commerce for Communications
Information
KARL NEBBIA, Associate Administrator
PAIGE ATKINS, Deputy Associate Administrator
ANNA GOMEZ, Wiley Rein

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

Welcome and Opening Remarks
 by Larry Alder, Co-Chair and
 Larry Strickling, NTIA. 5

Opening Comments and Introductions
 by Co-Chairs
 by Larry Alder, Co-Chair and
 Mark Gibson, Co-Chair10

Roll Call
 by CSMAC Members10

Acknowledgment of Special Guests/Visitors
 by Mark Gibson, Co-Chair20

Comments
 by Mark Gibson, Co-Chair21

Reports - CSMAC Subcommittees
 by Subcommittee Chairs, CSMAC.25

Enforcement Subcommittee Report
 by Jennifer Warren, Lockheed Martin. . .26

Transitional Sharing Subcommittee Report
 by Mark Gibson, Co-Chair39

General Occupancy Measurements/
 Quantification of Federal Spectrum Use
 Subcommittee Report
 by Mark Gibson, Co-Chair61

Spectrum Management via Databases
 Subcommittee Report
 by Larry Alder, Co-Chair70

Federal Access to Non-Federal Bands
 Subcommittee Report
 by Janice Obuchowski,
 Freedom Technologies.87

Spectrum Sharing Cost Recovery

Alternatives Subcommittee Report

by Michael Calabrese, New

America Foundation.98

NTIA Spectrum Update

by Karl Nebbia, OSM. 119

Industry/Government Collaboration

by Karl Nebbia, OSM. 126

Opportunity for Public Comment

by Attendees 133

Closing Remarks by Co-Chairs

by Larry Alder, Co-Chair and

Mark Gibson, Co-Chair 134

1
2
3
4
5
6
7
8
9
10
11
12
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14
15
16
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P-R-O-C-E-E-D-I-N-G-S

(1:00 p.m.)

CO-CHAIR ALDER: So, welcome to the 2014 version of CSMAC. We have lots of new faces and some existing faces.

(Laughter.)

CO-CHAIR ALDER: So what we'll do is you'll have an opportunity to go around the room and introduce everyone. But the first item on the agenda is to have Larry Strickling give us some opening remarks.

ASST. SEC. STRICKLING: And my first item of business is to introduce to you your new co-chairs. Larry Alder and Mark Gibson, both veterans of previous CSMACs, have agreed to serve as our co-chairs for this iteration of the Spectrum Management Advisory Committee.

We couldn't be happier with the fact that both of them have stepped up to take on even more leadership, although they've had plenty of opportunities to show leadership in

1 the past and have excelled at that, which is
2 one of the reasons they're now the co-chairs.

3 But thank you, Larry and Mark, and
4 welcome to both of you and to working with
5 this team as we go forward.

6 So we're obviously in a transition
7 period here with new co-chairs, with many new
8 members of the Advisory Committee. And as
9 Larry said, we will get on with having each of
10 you introduce yourselves. I'd like to talk to
11 you just briefly about the transition that's
12 happening at NTIA.

13 Karl Nebbia wanted me to let you
14 know that he thinks this is his last CSMAC
15 meeting.

16 (Laughter.)

17 ASST. SEC. STRICKLING: I'm not so
18 sure because we have another one coming up
19 later this year, I think in October in
20 Chicago. And Karl will still be on the
21 payroll then, and so I don't know how he
22 thinks he's getting out of that one.

1 But, in any event, Karl is going
2 to be bringing his tenure at NTIA to an end
3 later this year, I think at the end of
4 November, unless I do something to him sooner
5 and he walks out. But we'll have plenty of
6 time to reminisce and salute Karl for all of
7 his accomplishments.

8 So I won't take up the time today,
9 other than obviously he will leave an immense
10 hole in our organization when he goes, given
11 again the leadership that he has provided on
12 these issues for so many years.

13 But out with the familiar, in with
14 the new. I also wanted to introduce --

15 (Laughter.)

16 ASST. SEC. STRICKLING: -- Paige
17 Atkins, who is one of our new deputies in the
18 Office of Spectrum Management. We're still
19 recruiting for a second new deputy.

20 Paige is taking over the work that
21 Julie Zoller performed as well as taking on
22 all of our policy and planning work as part of

1 the expanded responsibilities of this new
2 position.

3 So welcome, Paige, who was also,
4 if she hadn't come to work with us, would have
5 been a new member of the CSMAC. But
6 fortunately we're getting her 24/7 instead of
7 just periodically with respect to her
8 contributions.

9 So welcome to Paige, and we're
10 looking forward. And Karl wants to kind of
11 put her in the driver's seat at the October
12 meeting. And we might still do that, Karl,
13 but I think maybe you should still come. But
14 we'll worry about that.

15 One other bit of news I would
16 mention is that folks will remember the
17 President's Council of Advisors on Science and
18 Technology issued a report on spectrum a
19 couple of years ago.

20 And one of their recommendations
21 was that we explore this idea of a model city,
22 a place where we could go out and test, in

1 particular, spectrum sharing technologies, but
2 really have an opportunity to have more than
3 just laboratory work but have the opportunity
4 to really test in a real, live environment
5 what's going on out there.

6 Very soon, I don't know if it'll
7 be out today, tomorrow or early next week, the
8 FCC, in collaboration with NTIA, are going to
9 be releasing a notice soliciting comment on
10 how we might go about implementing that model
11 city idea.

12 So, be looking for that. We'll
13 certainly make sure that Bruce circulates that
14 to everybody when it's released publicly. And
15 we certainly encourage everyone here in the
16 room and watching at home to consider filing
17 their comments in that particular proceeding.

18 So, with that, I want to welcome
19 all of our new members and welcome back our
20 familiar members. And this will be an
21 exciting next couple of years as we are
22 working through the agenda before this group.

1 We're anxious to get your help and
2 anxious to get your advice. These, again, are
3 very important issues that we are facing that
4 we need to solve as we continue to balance the
5 growing need of spectrum in federal agencies.
6 And, of course, the exploding need for
7 additional spectrum in the commercial
8 community.

9 So we've got a lot to do. And so
10 I will turn this back to our co-chairs, and
11 let's get going. Thank you very much.

12 CO-CHAIR ALDER: Thank you, Larry.
13 I think the next item on the agenda here is to
14 do the roll call. If that's okay with Bruce,
15 and I'm going to defer to him, I think we'll
16 just do around the room, let everyone
17 introduce themselves, because it's a new
18 formation of this committee. People can give
19 us their name, any background they feel is
20 relevant. Company or organization that
21 they're affiliated with is welcome, too.

22 So, with that, I'll start. Again,

1 my name is Larry Alder. I currently work at
2 Google, and I've been on the CSMAC for a few
3 years now. My role at Google is really around
4 access and all things access, whether they're
5 fiber, wireless, aerial. We do it all, so we
6 touch on a lot of spectrum issues there. And
7 it's been fun serving here.

8 CO-CHAIR GIBSON: And my name is
9 Mark Gibson, and I work with Comsearch. And
10 my title is business development, but I also
11 am probably Comsearch's regulatory and policy
12 guy, too, to the extent Comsearch needs one.

13 And my role has been, over the
14 past 30 couple years, mostly spectrum-related.
15 I spent my career in spectrum across all the
16 areas, my background's at EE. Been on CSMAC
17 for years. I've kind of lost track. I think
18 it's since 2010 or 2000-something. It's been
19 enjoyable. The last several years have been
20 a lot more enjoyable, for many reasons.

21 But it's fun being here, and I
22 think I speak for Larry, we're excited and

1 honored about being able to co-chair the body.

2 So, let's go with Paige. Go
3 ahead.

4 MR. NEBBIA: For the record, Karl
5 Nebbia is sitting next to --

6 (Laughter.)

7 MS. ATKINS: As Larry indicated,
8 I'm Paige Atkins, and I am the Deputy
9 Associate Administrator for Spectrum Planning
10 and Policy. And I've been onboard for a
11 month. I'm sincerely looking forward to
12 working with all of you.

13 A little bit of my background at a
14 very high level, about half of my career in
15 industry, half in the government. The last
16 three years in the university research arena.
17 So, again, happy to be onboard. Thank you.

18 MR. TRAMONT: I'm Bryan Tramont, a
19 managing partner at Wilkins & Barker. I've
20 been on the CSMAC from the beginning, and I
21 co-chaired with Dale Hatfield the first two.
22 Excited to be back.

1 MS. WARREN: I'm Jennifer Warren.
2 I am at Lockheed Martin, and I manage the
3 technology policy and regulation portfolio for
4 the corporation, which includes spectrum,
5 spectrum access. And I, too, have been on the
6 CSMAC since the beginning with Bryan and Dale.

7 MS. OBUCHOWSKI: And I'm Janice
8 Obuchowski, President of Freedom Technologies.
9 And I've been around spectrum a long time, as
10 well, in and out of government.

11 But my claim to fame here is that
12 I discovered Karl Nebbia.

13 (Laughter.)

14 MS. OBUCHOWSKI: He was a young
15 ex-Marine doing industrial, scientific and
16 medical devices. And I thought, jeez, this
17 guy's got a little running room left in him.

18 (Laughter.)

19 MS. RATH: Thanks, Janice. Charla
20 Rath with Verizon. I also have been doing
21 spectrum for a number of years starting
22 originally, actually, with Karl and Janice

1 back 25 years ago.

2 But currently, we're primarily on
3 long-term spectrum policy issues for Verizon.

4 MR. REASER: Hi. I'm Rick Reaser,
5 and I work with Raytheon. I'm the head of
6 spectrum management and electromagnetic
7 environmental effects at the company. I
8 primarily work with radars. I have a history
9 in both industry and government on spectrum
10 matters, and I do a lot of stuff with radar
11 mostly at Raytheon.

12 DR. REED: I'm Jeff Reed. I'm a
13 faculty member at Virginia Tech and the
14 founder of Wireless@Virginia Tech.

15 MR. ROBERSON: I'm Dennis
16 Roberson. I'm the Vice Provost for Research
17 at Illinois Institute of Technology. So we
18 have Illinois Tech and Virginia Tech sitting
19 next to each other.

20 And I'm delighted to be back and
21 part of the CSMAC, looking forward to the next
22 round of rigorous contributions in the realm

1 of spectrum.

2 MS. SOROND: Thank you. Hi. I'm
3 Mariam Sorond. I'm currently at Dish Network.
4 I'm responsible for technology development at
5 Dish. I have a total of 20 years' experience
6 in the wireless industry, mostly focused on
7 spectrum technology and standards development.
8 And I'm looking forward. Thanks.

9 MR. FELD: My name is Harold Feld.
10 I am Senior Vice President of Public
11 Knowledge, which is a nonprofit digital rights
12 advocacy group here in D.C.

13 And I have about -- more years
14 than I'd like to admit, but we'll go with also
15 about 15 years doing spectrum advocacy work,
16 primarily with nonprofits in the public
17 interest community.

18 MR. POVELITES: Carl Povelites,
19 AT&T, Assistant Vice President of Public
20 Policy. I've been in the wireless industry 25
21 years now, telecom industry about 28.

22 Responsibilities have always

1 included spectrum policy, and continues today
2 in addition to a number of other issues
3 affecting wireless.

4 MR. SCHAUBACH: Hi. Good
5 afternoon. I'm Kurt Schaubach. I'm the Vice
6 President and Chief Technology Officer for
7 National Rural Telecommunications Cooperative.
8 We work with rural telecommunications
9 providers. Before joining NRTC, I spent my
10 entire career, 20 years, in the wireless
11 industry.

12 DR. G. MCHENRY: I'm Guilia
13 McHenry. I work for The Brattle Group in
14 their telecommunications and media practice.
15 Since 2010, I've been working on a wide
16 variety of spectrum issues, mainly spectrum
17 valuation.

18 DR. M. MCHENRY: I'm Mark McHenry.
19 I work at Shared Spectrum Company, and we
20 develop spectrum sharing technologies, mostly
21 for DoD.

22 DR. KUBIK: Bob Kubik with

1 Samsung. I've been with Samsung now about
2 three and a half years, but I've been in the
3 policy spectrum space for about 21 years now.

4 I am a graduate of the U.S. CSMAC
5 Working Group 3, so I look very forward to
6 continuing to work in this group.

7 DR. KOLODZY: I'm Paul Kolodzy.
8 I'm an independent consultant for both
9 government clients, both on the DoD side and
10 for non-DoD side, as well as for commercial
11 clients and a variety of RF technology space
12 and spectral space.

13 DR. FURCHTGOTT-ROTH: I'm Harold
14 Furchtgott-Roth. I've been in and out of
15 government many times and currently head up
16 Furchtgott-Roth Economic Enterprises.

17 I'm also at the Hudson Institute
18 as a senior fellow and founded the Center for
19 the Economics of the Internet.

20 MR. SHARKEY: Steve Sharkey with
21 T-Mobile. I head the federal regulatory
22 group, particularly around technology issues,

1 which includes spectrum and a variety of other
2 issues. And like, I think, everybody around
3 here, I have been involved in spectrum for
4 many years, including at the FCC.

5 MR. DONOVAN: I'm David Donovan,
6 President of the New York State Broadcasters'
7 Association. I've been on CSMAC since, I
8 believe, 2009 and have been dealing with
9 spectrum issues since, oh, at least 2001,
10 maybe before that.

11 Thank you. I'm honored to be
12 here.

13 MR. COOPER: I'm Marty Cooper. I
14 have the dubious distinction of having worked
15 on spectral efficiency forever, more than
16 anybody here.

17 (Laughter.)

18 MR. CHARTIER: Mike Chartier. I'm
19 Director of Spectrum Technology and Policy at
20 Intel. I focus mostly on international issues
21 with an inordinate amount of time at the ITU.

22 MR. CALABRESE: Michael Calabrese.

1 I direct the Wireless Future Program at New
2 America Foundation. It's part of the Open
3 Technology Institute there. We're a nonprofit
4 policy institute. And this will be my second
5 term on CSMAC, and I'm very happy to be back.

6 MS. ALLISON: Hi, everyone. I'm
7 Audrey Allison, one of the new members. I'm
8 Director of Frequency Management Services at
9 The Boeing Company where I'm responsible for
10 licensing, compliance and all things spectrum.

11 Been in the spectrum field my
12 entire career, approaching 30 years now, and
13 we have extensive doings in -- you won't be
14 surprised to hear -- aviation, space,
15 aviation, and production support and testing.

16 MR. DOMBROWSKY: Hi. I'm Tom
17 Dombrowsky, Senior Engineering Advisor here at
18 Wiley Rein. I've been on CSMAC for several
19 years now focused on spectrum policy issues
20 for, I have to say, over 25 years, including
21 a number of years here and at the FCC prior to
22 being here at Wiley Rein.

1 ASST. SEC. STRICKLING: And thank
2 you for being our host today. I didn't know
3 you had your own spring here.

4 (Laughter.)

5 CO-CHAIR GIBSON: Let me do just a
6 few comments. We'll recognize special guest
7 Anna Gomez with Wiley. I understand you had
8 some comments?

9 MS. GOMEZ: No, I just wanted to
10 say welcome. We're very pleased to host this
11 committee.

12 CO-CHAIR GIBSON: Yes, and is
13 there anybody on the phone who we didn't
14 address? CSMAC people only.

15 DR. PEPPER: Yes. Hi, this is
16 Robert Pepper, Cisco, doing global tech policy
17 around spectrum, and I've been with CSMAC, I
18 think, with Bryan back in the beginning. And
19 I'm calling in from Tokyo.

20 CO-CHAIR GIBSON: Wow. All right,
21 thanks, Bob. Anybody on CSMAC on the phone?

22 MR. HATFIELD: This is Dale

1 Hatfield. I am currently on the faculty here
2 at University of Colorado at Boulder in the
3 Interdisciplinary Telecommunications Program.
4 And I'm also a senior fellow at the Silicon
5 Flatirons Center here in Boulder.

6 Everybody has given the number of
7 years they've been involved. And with the
8 possible exception of Marty, I think I'm
9 coming up on my 51st year, half a century
10 doing policy and spectrum-related work.

11 And I'm really glad that you've
12 continued to have me involved, and I'm looking
13 forward to participating again with this new
14 group.

15 CO-CHAIR GIBSON: Thanks, Dale.
16 Could Crosby make it, or is he -- I think he's
17 the only one we're missing. Is that right?
18 Okay. Good.

19 A few logistics. Do you want to
20 talk about facilities?

21 MR. DOMBROWSKY: Sure. For folks
22 here in the room, there's drinks for folks

1 over here if you get thirsty. And the
2 restrooms are on the second door, second
3 hallway on the lefthand side here.

4 And if you have any questions, I'm
5 here the whole time, so feel free to bug me
6 with any questions you have during the day.

7 CO-CHAIR GIBSON: Great. Thanks,
8 Tom. And thanks again for hosting.

9 So, at the risk of insulting
10 people who are used to this kind of work, I
11 just want to run through a few logistics so
12 that we can make sure we all do the same
13 thing.

14 First thing is, if you want to
15 speak and you're not already speaking, turn
16 your table tent up. I think that's standard
17 practice in these types of things. And then
18 Larry and I will figure out how to pick you,
19 and we'll try to call you in order.

20 The other thing is, when you do
21 finally get the chance to talk, please state
22 your name clearly and pull the microphone

1 close because they make a transcript of this.
2 And it greatly facilitates the poor folks in
3 the back when they try to figure out
4 "inaudible" in the transcript.

5 And Larry and I will be sure to
6 make sure that when you speak you do all those
7 things.

8 I think that's it. So after
9 having said that, any other comments you want
10 to make?

11 CO-CHAIR ALDER: No. I think we
12 want to make a few comments before we get to
13 going through the subcommittees.

14 So, Mark and I are stepping into
15 some big shoes. Greg and Bryan did a great
16 job. In consulting with Karl, for this first
17 meeting we've decided to stick with the
18 initial working groups that were ongoing at
19 the end of the last CSMAC. Karl felt that
20 those questions remained appropriate and
21 needed addressing. So we want to finish those
22 working groups out.

1 Of course, we want to invite the
2 new members to participate in those working
3 groups. So we felt like, for this meeting,
4 we'll go through those, get a status update
5 from those working groups, hopefully bring
6 everyone else up to speed on what is going on
7 with those working groups and then give people
8 an opportunity to join.

9 We'll talk a little bit as we get
10 towards the end of this meeting of things we
11 might do in subsequent meetings, kind of new
12 information. So that's kind of where we are.

13 Karl and the team, as with the
14 last CSMAC, really liked the format where we
15 very much focus on the recommendations. The
16 long, 100-page, 30-volume reports can go in
17 the appendix and be filed for posterity
18 somewhere. But what he really needs from the
19 working groups is succinct recommendations
20 that start with the language, "The NTIA
21 should." And that gives them something to
22 react to and to take action on.

1 So it's perfectly appropriate to
2 come back with very short documents. One
3 page, I think, is preferred by Karl. And
4 then, of course, supporting material can be in
5 the appendix.

6 So, with that, I think what we're
7 going to do is go ahead and walk through the
8 different working groups that we have open,
9 and have their co-chairs, if they're here,
10 present.

11 And the first one is the
12 Enforcement Working Group. And the
13 Enforcement Working Group is actually chaired
14 by Mark Crosby and Dale Hatfield. But neither
15 of them are able to be here today, so Jennifer
16 is going to present.

17 And by the way, there's packets
18 for all this in the back of the room if you
19 didn't get them.

20 MS. WARREN: Yes, Mark and Dale
21 asked me if I would present their report for
22 the Working Group. But Dale is, of course, on

1 the phone and will jump in and correct me if
2 I don't do justice to the work that their
3 leadership has produced. So --

4 CO-CHAIR GIBSON: Jennifer Warren.

5 MS. WARREN: I'm sorry. And I
6 should know.

7 CO-CHAIR GIBSON: That's one of
8 the things I noticed Bryan and Greg did really
9 well. So that's what we do.

10 MS. WARREN: As a familiar face, I
11 should have known, but I apologize anyway. I
12 am Jennifer Warren.

13 So there's a chart deck that's
14 been presented for you. And really what it
15 does is it reintroduces what the charter of
16 the group was. And I'm not going to read
17 everything on these charts. You can see them
18 for yourselves. But it reintroduces the
19 charter, and I think that's important because
20 we're continuing. And it recognizes the co-
21 chairs and the active members of the
22 committee.

1 And I would be remiss if I didn't
2 say that Dale and Mark wanted me to invite as
3 many of you as you would like to join us,
4 because there will be a restart in July with
5 a telecon on July 24th, at which they will be
6 allocating the five questions that have been
7 assigned to this working group by NTIA among
8 the members for discussion and leads. So it
9 would be great if we could have some new blood
10 to join this and to also help pick up some of
11 the work.

12 One of the things that's outlined
13 in this PowerPoint are some critical baseline
14 documents that will serve as foundation for
15 the work going forward.

16 Some of them are those very dense
17 documents that Larry referred to, but they
18 yield a lot of good work, and I think Dale and
19 Mark are thinking through ways to make them
20 perhaps brief to us in various ways rather
21 than us all doing deep dives into each
22 document as homework.

1 So, stay tuned for that. I'm sure
2 we'll have a report on that at the July
3 meeting.

4 One other thing to highlight is
5 that when the next full meeting in-person gets
6 scheduled, which they're targeting August and
7 September, we will be looking to invite
8 representation from the FCC's Enforcement
9 Bureau to come talk about what their current
10 capabilities are, what their current tools
11 are, what's missing, what might be unique in
12 the context of federal/non-federal sharing
13 environment as opposed to kind of what they
14 have dealt with currently. And also to
15 perhaps field some questions that we might be
16 developing in advance for them.

17 So that's the kind of first major
18 efforts that will be underway. And the
19 Committee Working Group will generate a report
20 from the Enforcement Bureau Meeting with us
21 and circulate that to the full CSMAC as well
22 as some further work items.

1 The questions that we are
2 addressing are at the very end of the package.
3 There are five. And so that's what we will be
4 covering.

5 CO-CHAIR ALDER: Jen, I probably
6 failed to set the context well enough for the
7 new members. So what had happened in the past
8 was that the NTIA had suggested these
9 questions to the working groups.

10 And we've kind of been focused, as
11 a matter of process, on picking one or two of
12 these questions and coming back with
13 recommendations. That was kind of the cadence
14 that we had gotten into. Instead of trying to
15 boil the ocean with doing everything at once,
16 really focus in on one or two questions, hit
17 those recommendations, move on to the next.
18 So these are the questions that the
19 Enforcement Group is grappling with.

20 CO-CHAIR GIBSON: And one more
21 thing. This is Mark Gibson. One of the
22 things Larry and I are going to do, again, at

1 the end, and continue to do, is solicit
2 participation from all members into as many of
3 these working groups as you can handle.

4 Some of us are on more than one,
5 so don't let that model scare you. But what
6 we're trying to do is make sure that the new
7 folks are plugged as well as the existing
8 folks. And Karl seems to be itching to speak.

9 MR. NEBBIA: As you know, I'm
10 always itching to speak. Karl Nebbia. I just
11 wanted to mention here, I think clarify a
12 little bit. The purpose of focusing on the
13 specific questions -- and I appreciate the
14 fact that that focus has been brought to our
15 attention in this document.

16 This is a really good example.
17 Enforcement is a huge issue. It can go
18 anywhere from east to west, what you're going
19 to do with that.

20 But we've tried to come up with a
21 set of questions that actually links
22 enforcement to the current context that we're

1 seeing develop where there is more and more
2 sharing of the spectrum through different
3 means.

4 And the approach to dealing with
5 enforcement in the current environment needs
6 to be dealt with, not the general question
7 maybe that we might have had for the last 30
8 or 40 years of my career. But, very
9 specifically, for instance, in some of these
10 sharing arrangements, more and more we're
11 moving toward having sharing arrangements
12 agreed by participants in the band.

13 So one of the questions that pops
14 up, if that's the approach we're going to
15 take, who enforces those arrangements? That
16 becomes a central issue. We never really
17 asked that before when things were, I think,
18 a little bit amorphous.

19 We've seen that in a couple recent
20 rulemakings. And we're clearly going to see
21 it in the outcome of the 1755-to-1780 band
22 where we look toward an arrangement between

1 the satellite control networks and the
2 industry, the service providers and so on.

3 So that's a specific example where
4 there's clearly going to be some agreement
5 reached. That agreement could be in the FCC
6 rules, for instance, but ultimately who
7 enforces that kind of agreement?

8 We're also moving into an
9 environment where we're seeing potentially
10 massive numbers of commercial devices or
11 personal devices operating in a band with
12 federal systems. And when you start having
13 interference, who do you look to? I mean, who
14 do you go to when, in fact, the interference
15 is potentially caused by the aggregate of
16 what's happening?

17 This, once again, was raised by
18 the satellite community in 1975 when they
19 feared at some point in the future when you're
20 all very, very successful and I'm home with my
21 grandchildren, at that point they're going to
22 notice the noise floor rising. And they're

1 going to be unable to figure out, you know,
2 how do we deal with it in that case, not going
3 to be able to point to one person or one
4 operation and so on.

5 So these are kind of the new
6 environment we're working in and the questions
7 have been written to specifically try to
8 highlight those things.

9 If you come up with other
10 questions, once again, I think that deal with
11 that kind of context, maybe ones that we
12 haven't pointed out, we'd certainly be happy
13 for you to identify them. But we really want
14 to get away from just a general dissertation
15 on enforcement. Thank you.

16 CO-CHAIR GIBSON: Okay. And I
17 think I'd add one comment, and Karl may have
18 alluded to this but I was trying to write down
19 what he was saying earlier. So I may have
20 missed it. One thought is enforcement in the
21 context -- this is Mark.

22 (Laughter.)

1 CO-CHAIR GIBSON: This is going to
2 be a long day. Thank you. The next one that
3 does this though. Anyhow, this is Mark
4 Gibson.

5 In the context of database-enabled
6 sharing, what does enforcement look like?
7 Now, you might be thinking about that, but I
8 mean that's one that kind of burbles up in my
9 head all the time.

10 So, anyhow, that was my comment.
11 Any other comments? Jennifer?

12 MS. WARREN: This is Jennifer
13 Warren. No, I wanted to just emphasize
14 something that Karl said, because I think Dale
15 and Mark have been emphasizing this as well,
16 which is how core and central this question is
17 in these new contexts to create the
18 environment that will create the trust for the
19 federal/non-federal sharing.

20 So it's very important work, and
21 there's a lot of work that's been done,
22 whether it's by the TAC or other academic

1 groups as well. But coming forward with
2 actual industry recommendations, both to NTIA
3 and that can also feed to the FCC, will be I
4 think a good value that we can make to this
5 effort.

6 CO-CHAIR GIBSON: Okay. Dennis
7 and then Bryan.

8 MR. ROBERSON: This is Dennis
9 Roberson from IIT. Thank you very much. This
10 is not only a very important issue, but it's
11 one that really has been neglected.

12 And as we transition into the
13 realm of data, as opposed to voice, this is
14 just another dimension of this that is really
15 important to keep in focus. Because
16 historically the way enforcement has been done
17 is actually to come up with the call letters
18 of the station or listen in and see who's
19 talking.

20 But now we're in a data world
21 where the data is encrypted. The data is
22 jumbled in bits and modulation schemes are

1 really quite complex.

2 So this is a very deep and
3 difficult problem, and when we're moving to a
4 sharing regime, as has already been indicated,
5 this is really, really critical.

6 Having had a review of the FCC's
7 enforcement capabilities, they really are
8 still at a place where they have the
9 capability to handle the environment as it
10 was, and not at all the capability to handle
11 the environment as it is going to be. So it
12 just underscores the importance of this work
13 for the group.

14 I will, again, echo a point that
15 Jennifer's already made. This is an issue
16 that the FCC TAC is also addressing. So there
17 is some opportunity for partnering between
18 this entity and that group as we pursue this
19 one. But it's a big enough problem that we
20 could have three other groups working on it,
21 and we still wouldn't have enough, in my mind.

22 MR. TRAMONT: Bryan Tramont. So

1 just one small point. I do think it's very
2 important in our conversation on enforcement
3 -- we have many great ideas around the table.
4 And we've already developed a number of
5 interesting methodologies going forward. But
6 it shouldn't be divorced from the resources
7 question.

8 We can have a bazillion great
9 ideas, but if there's no money to pay for it,
10 it's not going to do any good. And thinking
11 about cost-causers and where the
12 responsibility for funding should sit should
13 be part and parcel to this conversation,
14 because great ideas without resources end up
15 on the shelf.

16 CO-CHAIR GIBSON: So, any other
17 comments on this?

18 All right, so the enforcement work
19 continues. What can we expect in October?
20 This is Mark Gibson.

21 MS. WARREN: This is Jennifer
22 Warren, committing Dale and Mark to -- no, I

1 know that we will be at least having done an
2 assessment of what the current environment is,
3 at least from the FCC enforcement side.

4 And I think there will be a work
5 plan that will be presented in October. I
6 don't believe you will have any report at that
7 point in time. It would merely be a work plan
8 for a deliverable or set of deliverables.

9 CO-CHAIR GIBSON: All right,
10 that's good. Thanks. Any other comments
11 before we move on?

12 All right, so Mark and Dale are
13 going to be calling you.

14 Okay. The next one, then, is
15 transitional sharing. I'll take it. This is
16 Mark Gibson. I co-chair that one with Tom
17 Dombrowsky. And so there you have a brief.
18 But if you've seen the brief, the brief is a
19 very brief brief, and it's a brief we've been
20 using all along. How many times can I say
21 brief?

22 So what I'll do is I'll address

1 your attention to some of the stuff we've
2 added. First of all, I added the list of
3 members. There's a couple people on here that
4 are no longer CSMAC people, like Tom Sugrue.
5 Although, he's certainly welcome to be
6 emeritus. And Gary Patrick, who's helped a
7 lot.

8 The next page, I think it would be
9 Page 2 of the content, is a list of questions.
10 What we did is just put the questions on the
11 brief that we've been working on that we got
12 from NTIA. But those questions actually came
13 out of the solicitation for the working group
14 whenever we did that some months ago.

15 So it was a collaborative effort,
16 but that's the questions and what we're
17 working on.

18 The list of definitions, of which
19 there are two, is from before. We're hopeful
20 to fill that out, but it's important to
21 distinguish transit code to define
22 transitional sharing and distinguish the term

1 protection zone from things like exclusion
2 zone or -- well, sharing zone and protection
3 zone could be similar. Or it could be
4 synonymous. But nonetheless, we want to have
5 a taxonomy.

6 The areas of study, which is Slide
7 5, is the same as before. I think the
8 approach is the same as before. Some of the
9 things we have done is looked more into this
10 trusted agent effort. In fact, there had been
11 some trusted agent work that's been going on
12 to get some issues resolved.

13 There's an update page, which is
14 Slide 7. Our last meeting was in March of
15 this year. We were a little OBE because of
16 just some events. There were some trusted
17 agent meetings that went on. From those
18 trusted agent meetings came some documentation
19 and some conclusions, I should say, or at
20 least some refinement.

21 One of the documents -- and I'm
22 not sure if this had been publicized. Rob,

1 has it been made public, or do you know?

2 DR. KUBIK: I don't think that
3 document has been made public yet.

4 CO-CHAIR GIBSON: Okay. Then I
5 won't refer to it, so forget what you see in
6 front of you.

7 Nonetheless, we're also waiting
8 for the pending release of the agency
9 transition plans. From all accounts, they're
10 supposed to come out next week. There's going
11 to be a lot of people waiting for that to
12 happen.

13 And shortly thereafter, there
14 should be a pending public notice from the
15 Commission -- joint public notice from the
16 Commission and NTIA that describes
17 transitional sharing as well.

18 So once that stuff comes out,
19 we'll probably have a little more meat to sink
20 our teeth into. And so we're hopeful there
21 will be lots of people that will want to join
22 this group and we'll get a lot great things

1 done.

2 We did draft some recommendations.
3 Although, these are the same that we've had
4 before. I won't walk through them in detail,
5 but for the benefit of those that haven't seen
6 this, the first was to develop a portal.
7 There's a little diagram later on. This
8 portal is to exchange data. There's a portal,
9 if you know, that's been considered and
10 discussed for -- DoD has been talking about
11 it. And I believe ITS is developing a portal
12 for the 1695-to-1710 meg band.

13 Nonetheless, there is talk and
14 effort afoot to develop a portal to facilitate
15 the exchange of data with DoD, data and
16 results. So that's a recommendation that we
17 would make is just do that. But we'd like to
18 put a little more teeth to that. And we're
19 not exactly sure where that fits. So we're
20 going to have to talk about that as we move
21 forward.

22 We also want to make sure that, as

1 we do that, we involve commercial
2 stakeholders. We're on Slide 8. We involve
3 commercial stakeholders in that effort, given
4 that they are the ones that are going to have
5 to interface with it.

6 So Slide 9 is sort of a notional
7 diagram of how that would work. Again, that
8 was from the last meeting. Last two, I think,
9 actually. But the idea is that there may be
10 ultimately an overall sharing portal that
11 resides somewhere; could be with NTIA,
12 probably NTIA.

13 And you'd get into that portal.
14 You choose the bands of interest. We have
15 some of the bands listed here. And then you
16 go down to whatever portal interacts with
17 those bands.

18 So that's something notional. So
19 we'll be working on fleshing that out a little
20 bit. So that's Slide 9.

21 Slide 10 is another
22 recommendation. We suggested that we have a

1 coordination symposia. I believe that was OBE
2 as well, only because there's been other
3 efforts afoot to address the coordination
4 among stakeholders.

5 So I think we may even -- I think
6 as a long term effort for just sharing between
7 commercial and federal, it's good to have some
8 discussion among all stakeholders on how
9 coordination happens. Whether that happens
10 among the stakeholders per se, or in other
11 fora, remains to be seen. Nonetheless, that's
12 the gist of that recommendation.

13 The other recommendation on Slide
14 11, I'll talk to the second one there, is hold
15 regular meetings with commercial stakeholders
16 and licensees, the FCC, NTIA.

17 I believe Karl's going to talk
18 about that a little later on, so that's one
19 recommendation that's been picked up.

20 And then the last slide is the
21 next steps. So the work continues. So I'll
22 answer my own question, which is what are we

1 going to have in October? I ask myself that
2 question, but we're going to continue to work
3 this effort. And hopefully with more people
4 we can get a little bit more work done on it.

5 Like I said, a lot of this has
6 been overtaken by events because of the
7 trusted agent work that's been going on, the
8 discussions with the various stakeholders and
9 awaiting transition plans and the Commission's
10 public notices.

11 So we're hopeful that by the
12 October time frame we can flesh these
13 recommendations out a little more. And, as
14 Jennifer said, not have a 100-page document
15 but at least have a little more flesh on the
16 recommendations as it were. Tom Dombrowsky,
17 do you want to add anything?

18 MR. DOMBROWSKY: Yes, this is Tom
19 Dombrowsky. I think just to add that we're
20 trying to grow from where we came with the
21 sub-working group effort that went on the past
22 couple years, as well as the AWS1 experience.

1 So just trying to continue that
2 sort of communication process between the
3 government and the commercial stakeholders.
4 And make sure everybody's on the same page and
5 there's not surprises leading up to the
6 auction, past the auction and going forward
7 with, say, the 3.5 gigahertz band and other
8 places where we're going to have all this sort
9 of sharing going on at a regular and routine-
10 type basis, just to make sure there's
11 discussions and understanding of how
12 transitional sharing will work as well as sort
13 of long term sharing that we expect in all
14 these bands.

15 CO-CHAIR GIBSON: Okay. Thanks,
16 Tom. Is that Harold?

17 MR. FELD: That just answered my
18 question.

19 CO-CHAIR GIBSON: Okay. That was
20 Harold Feld.

21 Any other questions, comments?
22 Karl.

1 MR. NEBBIA: I just wanted to
2 check and see, I mean, aside from specific
3 documentation, can you give us, those of you,
4 and I know it's more than one or two that have
5 participated in the NDA discussions between
6 DoD and industry reps, can you talk at all
7 about what you feel like you've learned from
8 that process and where things have moved
9 positively?

10 MR. DOMBROWSKY: This is Tom
11 Dombrowsky again. I'd say we have about two
12 dozen, more or less, participating in the NDA
13 process at this point, both probably half
14 government, half non-government folks.

15 And I will say these last several
16 months have been very good. I think that
17 we've gotten a smaller group. We're a little
18 bit more effective in terms of focusing the
19 effort. We weren't rearguing things quite as
20 much, which was good. And I think we actually
21 made some good progress in terms of
22 understanding both ways. It wasn't just one-

1 way understanding.

2 I think at least with -- and I'll
3 let Rob speak to the satellite sharing issue
4 because he was most intimately involved in
5 that. I think they got to a good resolution
6 there.

7 And then in the AMT front, I don't
8 see anybody here that was a really key co-
9 chair of that group.

10 But that being said, I think in
11 both of those sort of specific instances we
12 made some good progress to where both sides
13 were happy with the progress.

14 I don't think we got all the way
15 there, obviously, because we only had a few
16 months, but I think it was a helpful next step
17 from what we did last year in a more focused
18 manner to get to a smaller sharing zone and a
19 better understanding of what both parties were
20 expecting out of the sharing.

21 CO-CHAIR GIBSON: Did you want to
22 comment, Rob?

1 DR. KUBIK: Sure, Bob Kubik,
2 Samsung. I chaired the working group three or
3 co-chaired the working group three, and I
4 drafted into the coordination agreement that
5 we'll hopefully be issuing soon.

6 What I learned, I think with the
7 smaller group everybody was coming together to
8 try to get their needs to progress, go forward
9 to have a fundamental agreement on how to move
10 forward here with an agreement that allows
11 everybody to come forward with a business that
12 they can continue to do.

13 Or that's continue to operate your
14 satellite sigless stations or the carries
15 going forward and not being overburdened by
16 developing coordination procedures that could
17 easily, they spent a lot of time getting down
18 into.

19 So I think it was a very collegial
20 process, and I think focusing down on the very
21 specific topics are very useful.

22 CO-CHAIR GIBSON: Yes, I'd add one

1 more thing. This is Mark Gibson. I echo what
2 Tom and Rob said, but the collegial aspect of
3 it, it was heartening to see the constantly
4 the DoD being able to be flexible in their
5 methodologies and approach they took to doing
6 some of these analyses.

7 It just, once we got into the room
8 and were able to work on sort of DBs if you
9 will and specific issues, we were able to roll
10 up our sleeves and actually get some progress
11 done.

12 And I think that was very
13 heartwarming just having lived through the
14 CSMAC working group five, four, three, two and
15 one process, this was good.

16 MR. NEBBIA: Karl Nebbia again.
17 So I mean there is a learning process to doing
18 these things. The CSMAC working groups were
19 a first try at that.

20 And so part of my question here,
21 mostly because as I look ahead at the specific
22 questions we have under this group, you get

1 down to issues related to do you want, what
2 tools do you really need to move the ball
3 forward in a way that's productive.

4 You can have the easy tools that
5 everybody recognizes, and those things tend to
6 come up with very conservative outcomes. But
7 they're what is on record sometimes at the
8 ITU.

9 Or you can move through to
10 something much more specific in order to get
11 solutions. So I think it's, these things, and
12 this will play into our discussion later of
13 collaboration and so on.

14 But it would certainly be
15 interesting to me to know. We've gone through
16 kind of a lessons learned process on the CSMAC
17 working groups.

18 Do you feel that the major
19 breakthroughs came in these discussions by an
20 ability to actually look at specific data
21 under NDA arrangements?

22 Or they came because in a smaller

1 group people were willing to talk about
2 methodologies and solutions that they're not
3 willing to talk about more publically?

4 CO-CHAIR GIBSON: All right, Steve
5 and then Tom. Steve Sharkey.

6 MR. SHARKEY: Yes, sorry. Steve
7 Sharkey. I think there were two situations.
8 With the original CSMAC working groups you
9 were taking an initial look at those systems.

10 And I think there was very useful
11 understanding how the systems operate and how
12 our systems would operate. There was a lot of
13 good information exchanged and kind of a
14 better understanding of the systems.

15 But we never got past some of the
16 really conservative analysis until there was
17 a decision that the reallocation would happen,
18 that the auction would go forward, right.

19 So the more recent discussions
20 with the trusted agent group were in a much
21 different context, and I think more
22 cooperative on okay.

1 Now that this structure is in
2 place, how do we implement a transition and do
3 that effectively. I think both sides were
4 very good about working with that.

5 And DoD was particularly good
6 about what would be a negative impact from the
7 commercial provider point of view on rolling
8 out a service and trying to work to minimize
9 that.

10 CO-CHAIR GIBSON: Thanks Steve,
11 and Tom Dombrowsky.

12 MR. DOMBROWSKY: Yes, Tom
13 Dombrowsky. I'll echo what Steve said there,
14 but I'll also react to what Karl said. We
15 really didn't get down to full disclosure of
16 data.

17 We didn't get there even in the
18 small groups, and I don't think we'll ever get
19 there. And I understand why we won't ever get
20 there.

21 But I think as Steve said, I think
22 sort of a change in attitude is what the

1 biggest change was with the smaller groups is
2 that folks were like okay.

3 We now know what we're heading
4 towards, so let's all roll up our sleeves and
5 get there and do it so that it makes some
6 sense. And again, it was still, we would make
7 recommendations and thoughts.

8 The Department of Defense and
9 federal folks would go off and work on it, and
10 they would dump it right back to us. And we
11 would react to it, and it was iterative.

12 So there was a good, iterative
13 spirit, and it actually got to someplace
14 because I think folks were all rowing the boat
15 in the same direction in the smaller groups as
16 opposed to a larger group where I don't think
17 everybody was focused.

18 I think they were so large that it
19 was hard to get everybody focused because they
20 would come in. They would go out. Unless you
21 were there at every meeting, it was really
22 hard to sort of keep up with what was going

1 on.

2 So I think with the smaller
3 groups, we were actually able to stay a little
4 bit more focused. And we had less, frankly,
5 issues to focus on, too.

6 So it's obviously easier to row
7 when you're only looking at two issues instead
8 of 30, so just my two cents on that. Go
9 ahead.

10 CO-CHAIR GIBSON: Go ahead Karl.

11 MR. NEBBIA: Karl Nebbia, and
12 sorry to ask a lot of questions, but this is
13 my last chance.

14 (Simultaneous speaking)

15 MR. NEBBIA: So hopefully, as the
16 group's looking at these questions, one of the
17 emphasis on here is on the tools that we use.

18 And I think part of the question
19 gets to be are we able to move new tools
20 forward that get you beyond the traditional
21 barrier or the long distance results.

22 In fact, for instance, when we

1 started the work on the fast track report we
2 were looking at 1695. And one of the things
3 that we had to deal with were ITU
4 recommendations that dealt with ducting.

5 And that if we used those as the
6 bottom line for determining coordination
7 distances, you basically couldn't put any
8 handsets in the northeast without interfering
9 with the weather site in the D.C. area.

10 So, we finally had to just say
11 that's something we just can't use in this
12 environment. So as we move forward, are we
13 going to or can we point out tools or areas
14 where we need to develop tools that become the
15 accepted methods.

16 In fact, in this case, maybe how
17 we deal with clutter issues becomes one of
18 them. How do we deal with, are there accepted
19 or necessary terrain models that everybody's
20 going to be expected to use as the baseline?

21 Or are we going to kind of go
22 through this each time again, fighting over

1 what the tools are that we're using. Thank
2 you.

3 CO-CHAIR GIBSON: Steve Sharkey.

4 MR. SHARKEY: Hopefully, yes,
5 Steve Sharkey. We've made a lot of good
6 progress during this whole process because
7 coming out of the CSMAC working groups and
8 those reports noted that there were
9 outstanding issues around propagation,
10 terrain, clutter that couldn't be resolved in
11 the time for the working group.

12 And in the period between the
13 close of that working group and beginning of
14 some of the other work there was actually a
15 lot of work that went on to validate with
16 measurements that were taken, with studies
17 that were done by ITS that were introduced
18 into the group that really facilitated some
19 more detailed discussion in that, in the more
20 focused.

21 And now that that's been accepted
22 as part of the method, hopefully we don't have

1 to go back and reinvent that every time
2 because I think they're generally applicable
3 to a variety of situations.

4 CO-CHAIR GIBSON: And this is
5 Mark. I would agree with what Steve said and
6 sort of amplify that. There's tools and
7 there's methodologies.

8 And I think we identified tools
9 that can be used. Whether those are the tools
10 we'd use going forward again, that remains to
11 be seen. Some of these tools are mutable, and
12 some of them are not.

13 But I think what we were able to
14 do is refine methodologies, define and refine
15 because it took a lot of work to get to how we
16 would do clutter.

17 We took about a year and half's
18 worth of work just to be able to identify
19 clutter, to agree what we meant with clutter,
20 to understand how clutter is different from
21 terrain in a model.

22 And that might sound somewhat

1 perfunctory to people, but a lot of these
2 things are sort of incorporated in the same
3 methodologies.

4 And so we were able to peel these
5 things apart and study them one at a time and
6 have open discussion about how we would
7 include the effect of each of these in the
8 analysis methodologies.

9 And I think that was a good thing
10 coming out, and I think we all feel hopeful
11 that having done that once we can do it next
12 time. Steve.

13 MR. SHARKEY: But it probably
14 would be worthwhile to go through and review
15 all the, and look at where do we need to
16 develop more, where you're happy with
17 measurements or develop a floor.

18 Because even with what we've
19 agreed now, there's still some room for
20 improvement I would say. So to the extent
21 that there's still a need for measurements or
22 other testing that would help validate and

1 refine those methods, I think that would
2 probably be a good area for recommendations.

3 CO-CHAIR GIBSON: I'm putting
4 Steve's name in to join the group. Any other
5 comments? Do you have comments Karl?

6 MR. NEBBIA: I'll think of one
7 before it's too late.

8 CO-CHAIR GIBSON: It's never too
9 late. Okay. So the next one is general
10 occupancy measurements, and that was the one
11 that the two Mark's were heading I think, me
12 and, there are three Marks.

13 And actually, all three Marks were
14 interested, Mark Gibson, Mark Crosby and Mark
15 McHenry. And sad to say that we haven't done
16 anything on that, and it isn't because we
17 don't want to.

18 It's just because with all these
19 group of people I think we can now kind of
20 look at that. Now that we've gotten a little
21 bit more work on some of these other working
22 groups that Tom and I are working on and

1 others, I think I can back off and maybe put
2 some time on that.

3 So there's no report, and I doubt
4 there will be a report. We may be able to
5 work on it a little bit and have a brief by
6 October, but bottom line is we haven't done
7 much other than continue to talk about it in
8 these meetings to say we need to do anything.

9 And then Mark, Mark and myself,
10 three Marks have talked a little bit about it
11 when we have these face-to-faces and
12 acknowledge that we need to do it.

13 So we want to keep it on the list
14 of working groups because we do thing that
15 it's valuable, especially given that it is a
16 requirement in some of the AWS3 rules.

17 You can monitor some of the
18 deployments, I believe certainly in the 1695
19 to 1710 meg band and with respect to other
20 equities. And so I think we want to continue
21 it.

22 Mark McHenry, did you want to say

1 anything about that, or you just want to wave
2 a flag on that?

3 DR. M. MCHENRY: Well, are there
4 any questions that have been put by NTIA? Do
5 we need to refresh those questions?

6 CO-CHAIR GIBSON: There were
7 questions, and I think we should go back and
8 revisit them. I don't have them in any of the
9 documentation.

10 So I think as an action, maybe
11 what we can do by October is go back and look
12 at the questions and maybe set up a list of
13 questions. And so that's about all there is
14 for that. Did you, Karl?

15 MR. NEBBIA: Karl Nebbia, yeah
16 there was a specific list of questions for the
17 group because one of the challenges is there's
18 been a lot very positive said about occupancy
19 measurements for one thing.

20 But there's a lot of disagreement
21 on the value of them. And NTIA, in fact, is
22 doing a pilot right now where they are

1 beginning to, they're buying hardware and
2 different pieces of equipment for it.

3 They're looking at ways of
4 distributing information that they gather from
5 these measurements. And their focus, to some
6 extent, is going to be on radar bands because
7 most of the bands that we have on the federal
8 side, certainly between one and three, one and
9 four gigahertz are radars.

10 And most of the techniques that
11 people even around this table have talked
12 about before in using in terms of broad
13 spectrum occupancy measurements are not
14 focused on radar activity or mobile radar
15 activity particularly.

16 And that if, once again if we're
17 going to be dealing with these bands for the
18 future and how are we going to share them or
19 what are we going to do with them, we've got
20 to come up with ways that the measurements are
21 meaningful.

22 And just having people go out

1 there and say I stuck my antenna up. I didn't
2 see anything. They must not be there just
3 doesn't, we can't make policy decisions based
4 on that.

5 So we're trying to, we can, just
6 not good decisions based on that. So we are
7 trying to explore this area further. And we
8 certainly appreciate folks' input beyond the
9 assumption, in fact, many of you and the
10 business are doing measurements.

11 So I understand that, so I just
12 ask when you come to the table, come with an
13 open mind demonstrating why your measurements
14 actually would meet the need in this
15 particular case.

16 The other part of it is, of course, part
17 of what measurements do you hope is come up
18 with some means of quantifying the actual use
19 of the spectrum in terms of time and so on.

20 And we were directed by the
21 President to look into quantification of
22 federal spectrum use. And you will see in our

1 annual report that was put out on I think June
2 5th, a component of that is our plan for doing
3 the quantification of federal spectrum use.

4 And the only solution that we felt
5 we could look to in the short term anyway was
6 the idea of asking the agencies, basically
7 assignment by assignment, to make some
8 estimation of the time of use related to those
9 assignments because we can already take the
10 characteristics associated with the assignment
11 and say from a technical standpoint what area
12 does this assignment cover.

13 We can link that to population, so
14 we can say how much population does this
15 assignment cover.

16 But in the end, it's the time
17 factor that becomes the one that I think
18 people when we talk about efficiency now,
19 people are reflecting on the lack intensity of
20 use in terms of time and so on.

21 This isn't going to be easy
22 because the services that we deal with are

1 very, very different. So we might have a
2 fixed radar supporting air traffic control.
3 My assumption is I'm going to see something
4 that says it's close to 100 percent on the
5 channel it's on, maybe rotating.

6 And some people may feel like
7 that's usable. I'm not sure that it's that
8 helpful, but other operations are very
9 localized or very mobile.

10 And we're going to have to come up
11 with a way in dealing with them. For
12 instance, law enforcement surveillance, room-
13 to-room your local, your motel room to motel
14 room.

15 How do you quantify that? Some of
16 you know about that kind of thing, but how do
17 you quantify that in terms of spectrum use?
18 So we're going to be working with the agencies
19 that do that kind of thing that talk about a
20 way that we can quantify that.

21 And at least my initial sense you
22 should do it based on the idea that if you

1 were to stand at any place and put up your
2 antenna, specifically looking for these
3 devices, how often at that location would you
4 expect to actually pick up a signal?

5 And my guess is because they move
6 around, they've got nationwide access, that's
7 probably fairly low at any particular
8 location. Now that doesn't get you to an
9 answer.

10 I mean you still have to take into
11 consideration their need, but if we're going
12 to quantify the level of use of the spectrum,
13 that's a starting point. And that's what our
14 plan is oriented around.

15 CO-CHAIR GIBSON: Jennifer.

16 MS. WARREN: Jennifer Warren.

17 Just to followup, what was your guidance to
18 the agencies with, because you said
19 assignment-by-assignment.

20 But with respect to frequency
21 hopping radars, which is obviously different
22 than fixed or mobile, could you share that?

1 MR. NEBBIA: No.

2 CO-CHAIR GIBSON: That was Karl.

3 MR. NEBBIA: I mean they are some
4 of the challenging considerations we're going
5 to have to work through, and I think once
6 again, it may have to do with that question of
7 at any place what are you going to see, if
8 anything.

9 It may be very difficult to see
10 anything, but we'll, that will have to, in the
11 end when you get beyond the specific
12 quantification, the agencies have been
13 directed to add in other factors that need to
14 be considered and the use of frequency hoppers
15 going over a broad spectrum may be part of
16 that consideration.

17 So it's going to be challenging
18 because we've got so many different kinds of
19 operations. But that's where we're headed.

20 CO-CHAIR GIBSON: Okay. So this
21 is Mark Gibson. The Marks will get together,
22 and we'll put our mark on it. It was not Mark

1 Gibson. Okay. Let's just away from this and
2 move on to databases. And that's Larry.

3 CO-CHAIR ALDER: Yes, so Mark
4 Crosby's not here. He and I were co-chairing
5 this working group. The working group is
6 Spectrum Management via Databases. And the
7 working group did successfully narrow it down
8 to one question.

9 CO-CHAIR GIBSON: Correct. It's
10 Mark Gibson has been working on that with you.

11 CO-CHAIR ALDER: Oh.

12 CO-CHAIR GIBSON: You knew that.

13 CO-CHAIR ALDER: Yes. Sorry about
14 that.

15 CO-CHAIR GIBSON: It's okay.

16 CO-CHAIR ALDER: Sorry about that,
17 Mark.

18 CO-CHAIR GIBSON: That's okay.

19 MR. NEBBIA: You guys are much
20 funnier than the last guys. I'll tell you.

21 CO-CHAIR GIBSON: It's the Mark
22 and Larry Show.

1 (Laughter)

2 CO-CHAIR ALDER: So we did
3 successfully narrow it down to one very
4 focused question, which is listed on the
5 second page of this. And I'll just repeat it
6 so people know.

7 It's how can sensitive and
8 government classified operations be included
9 and protected using a database driven
10 approach, particularly one that strives toward
11 real time responses.

12 So that's the question that we've
13 kind of adopted. The working group members
14 are listed here, and there's space for new
15 folks. I'll bring attention to this at the
16 end, but if you want to join this working
17 group you can send myself or Mark an email.

18 I will also send out the next time
19 the working group has a call, which will
20 probably be within the next month. We don't
21 have it scheduled. We'll send it out to the
22 general membership, so people can join if they

1 want to.

2 But the progress of the working
3 group is listed on the next page. We actually
4 did some good work prior to the December
5 meeting. We created a number of documents
6 that the working group has access to, ones
7 that actually describe what a database is,
8 what the elements are, how the information
9 flow is.

10 Several other documents that have
11 started to list various ways we might deal
12 with confidential information, we haven't
13 shared those documents yet.

14 But I would share those with
15 people that join the working group as we go to
16 that. We decided after December that the most
17 productive thing to do would be to engage in
18 a case study.

19 We really wanted to focus on one
20 specific example, and chose the 3.5 gigahertz
21 radar, shipborne radar example. And we
22 approached the DoD and said can we really

1 engage in a case study on how we would put
2 that kind of information into a database.

3 And there's lot of issues around
4 that from, one of the issues is, is the ship
5 in the harbor. You can go and see that the
6 ship is in the harbor.

7 And so you think, well that's not
8 really classified because I can walk up and
9 see that the ship is in the harbor. But other
10 people may say no, that's classified because
11 it's one thing to walk up and see the ships in
12 the harbor.

13 It's another thing to have that
14 information available in the database that
15 people around the world can access. So you
16 get into a lot of these issues.

17 We thought that would be an
18 interesting topic to engage in. We had a
19 dialogue. Karl helped facilitate that
20 dialogue. And at the end of it, we didn't
21 really engage in the case study.

22 But we did expand our list of

1 questions. And so on the next page is a list
2 of questions. And these are questions that
3 the DoD provided us. And the working group
4 has not yet engaged these questions.

5 We took a bit of a hiatus as the
6 new CSMAC was being formed, figuring out who's
7 going to be available. So this is kind of the
8 status we have today.

9 We have these questions put before
10 us by the DoD, and we have some internal work
11 that we've done.

12 What we really need to do now, as
13 you can see on the next page, is we really
14 need to come together and address these
15 questions maybe a discussion with the DoD to
16 explore them in more detail, and then to bring
17 some recommendations.

18 And in advance of Mark's question,
19 I think for October our goal is really to
20 bring some recommendations to the group. And
21 we've had a lot of discussion.

22 There's been a lot of documents.

1 We want to really drive towards at least a
2 couple of recommendations on this topic. And
3 there's lots going on with the FCC and the 3.5
4 gigahertz proceeding.

5 So there is lots of parallel
6 discussions on this very relevant topic. Do
7 other working group members have comments?

8 MR. REASER: This is Rick Reaser,
9 and I'd like to make a couple comments about
10 the DoD questions. I found the DoD questions
11 kind of interesting because I used to be a
12 designated approval authority for classified
13 information systems while I was in DoD.

14 And many of these questions we're
15 going to have to have a dialogue with DoD, and
16 maybe not DoD.

17 But maybe we should talk to the
18 National Archives and Records Administration
19 and the ISOO who control classification of
20 information across the entire federal
21 government.

22 That's because it's not just DoD

1 we're worried about because what would happen,
2 some of these questions that are being asked
3 are actually things that would be specified
4 from the government as to how they would want
5 these systems to behave and operate.

6 So some of the questions are
7 things that we would never be able to answer
8 as a group, and remember, we're just making
9 recommendations.

10 We're not actually designing the
11 system. But things like how is the
12 information protected, that would be specified
13 by the DoD.

14 And if you're a contractor, and
15 those of us contractors like Audrey and
16 Jennifer know, they have something called the
17 NISPOM, the National Industrial Security
18 Program Operations Manual, which defines
19 exactly how you treat DoD classification.

20 And it has to do with class guides
21 and stuff like that. The other thing is some
22 of these questions they ask, this, that and

1 the other thing, those are really covered in
2 security classification guides as to whether
3 that information is protected and to what
4 level and so forth.

5 So a lot of the questions that are
6 asked of us by DoD are really questions that
7 the DoD itself has to answer, and not just the
8 DoD but all the federal agencies need to
9 answer these questions because all of the
10 classified information is owned by the
11 government.

12 And how it's protected, handled
13 and processed and stored, that's a government
14 requirement that would have to be told to us.
15 So I think what we could do is maybe assess
16 the feasibility of those kinds of things.

17 But to be honest with you,
18 industry deals with classified information all
19 the time and classified databases. Like I
20 said, I used to sign off on Boeing Systems.

21 I was a DAA on Boeing System and
22 had cryptography and all sorts of stuff in it.

1 And a big document would come in, and a person
2 would have to do that.

3 The other thing I think you're
4 going to get into when you're dealing with
5 classified is you're going to have to move
6 beyond just DoD.

7 If you do a system that has
8 classified information or multiple agencies,
9 an individual such as a designated approval
10 authority or whatever the mechanism that you
11 have, would have to take a look at that and
12 assess whether all these requirements that the
13 federal agencies are being met in the
14 database.

15 So my initial proposal would be to
16 probably get a briefing from the NARA, which
17 is the guys who run classified information for
18 the federal government, including DoD and then
19 probably the ISOO within the NARA would be a
20 place to go to talk about, so the general
21 concepts of classified information and
22 information processing.

1 So a lot of these questions are
2 things that I think the DoD really is going to
3 need to tell us more, and not just the DoD but
4 DHS has classified information.

5 A lot of the federal agencies have
6 information that's classified with respect to
7 frequencies and so forth, and we need to kind
8 of have that discussion.

9 CO-CHAIR GIBSON: Thanks, Rick.
10 Jennifer.

11 MS. WARREN: Thank you, Jennifer
12 Warren. I read these questions a little
13 differently. I guess I read them not so much
14 about what can they do.

15 But what does a database need, and
16 for them to understand how that then works
17 with the classifications that they know and
18 live with on a daily basis.

19 So I look at this differently than
20 how the previous speaker interpreted them, so
21 I think we still need to have this
22 conversation. And then I agree.

1 Engage with the Department and
2 other federal agencies to talk about how does
3 that then interface with their own
4 classification requirements.

5 And it's originally the agency
6 that determines the classification. NARA has
7 the authority to declassify pursuant to
8 certain time lines and things. But they
9 aren't actually the classifying agency. Thank
10 you.

11 CO-CHAIR ALDER: This is Larry. I
12 agree that there's been an information, part
13 of that is an information gap and
14 understanding what the capabilities of these,
15 capabilities, conventions, methods that these
16 database uses and the people that have this
17 kind of information that they want to protect,
18 understanding what tools are available.

19 The working group has developed
20 some documents. I'm not sure it's our role to
21 do the education fully, but it could be our
22 role to recommend.

1 And I know there's activities
2 going out outside of the CSMAC where there's
3 forums and that's ongoing, but you're right.
4 There's an information exchange that needs to
5 happen so that people understand what the
6 capabilities are.

7 And then you can probably develop
8 requirements based on that information. So
9 the group is definitely thinking along those
10 lines as well for recommendations.

11 CO-CHAIR GIBSON: Anymore
12 comments? Karl.

13 MR. NEBBIA: Yes, I think looking
14 at this, if you were to ask DoD specifically
15 those questions, they'd say well, we'd rather
16 not give you the information at all.

17 We'd rather go right by our
18 classification guides, and we don't see a
19 reason for you all to have the information.
20 You don't have a need to know from a
21 traditional DoD standpoint.

22 So they're actually, they're

1 looking out. They're seeing the world around
2 them suggesting. We have PCAST on one hand.
3 We've got other groups, that we can do this
4 through this SAS concept.

5 And they're asking the questions,
6 well how do you intend to meet the
7 requirements and so on that we have. So I
8 think that's why they ask the questions.

9 They see this as kind of a foreign
10 environment. They're looking for okay, if
11 you're going to expect us to participate in
12 this kind of thing, what are you thinking of
13 in terms of how the rules are going to be laid
14 out.

15 Is the Commission, for instance,
16 going to potentially appoint one kind of
17 cleared group that's going to be holding the
18 data so that all the users don't actually,
19 see, just trying to look for that kind of
20 feedback.

21 But on the other hand, they can
22 just go back to the classification guide. And

1 they'd probably say we're not giving you any
2 of the data.

3 So I think we're trying to develop
4 this concept in a way that gives DoD some
5 greater sense of how their data will be
6 handled.

7 Also, I should note that the
8 classification materials and those guides deal
9 very much with actual classified information.
10 But there's a whole host of non-releaseable
11 government information that's treated kind of
12 broadly.

13 And you don't have so much of that
14 very specific detailed this is how you can
15 hand it out. This is what you can combine
16 together and so on.

17 And I think they are concerned
18 about that. We developed a database
19 capability at 70, 80, 90 gigahertz a few years
20 ago with the help of a lot of folks at the FCC
21 and our staff and the federal agencies.

22 But the one thing we found in

1 walking through that process was we could do
2 that only because we had no classified data in
3 the database for those bands.

4 And that if we had had that, we
5 could not grant public access to the system.
6 So you start getting into those kind of nitty
7 gritty issues as you go along the way.

8 And I think they certainly would
9 like to hear from a body like this. What do
10 you envision in terms of how we'll go about
11 protecting these bits of information?

12 CO-CHAIR GIBSON: Okay. This is
13 Mark Gibson. I'll make one comment. Maybe we
14 need to move along is that the challenge I
15 think we face in this working group is how do
16 you respect the classification level of the
17 data up to and including FOUO, yet still be
18 able to use, provide something more than just
19 the zones because an exclusion zone isn't
20 sharing.

21 It's you can't operate here, and
22 that's not really sharing. That's my sandbox,

1 and you're not welcome. And so we need to
2 move beyond that, and I think that's the
3 challenge our working group faces.

4 And I think we'll find that out
5 better once we can interact a little bit more
6 with the DoD. I mean a lot of what Rick said
7 is true, and Jennifer, is a lot of that stuff
8 is codified.

9 It's out there, but a lot of it we
10 don't necessarily know. And I think it
11 requires checking with them because these
12 opsec issues are things you kind of have to
13 run by experts and say okay.

14 Well, we can't have the data, but
15 can we do this? Can we do that? And what
16 we're trying to do is make sure that we can
17 build something that the adversaries can't do
18 the same thing and then derive some way to get
19 past it.

20 And so, we're learning this as we
21 go along, but I think that to the extent that
22 we can interact with the holders of that

1 classified, whether it's DoD or any other
2 agency, it would be helpful.

3 So Larry and I are going to
4 continue to ping on them. And so by October,
5 how long is that? We're hopeful to have
6 something more than what we have now. And so
7 that probably goes without saying but, go
8 ahead.

9 MR. NEBBIA: Just real quick. One
10 of the components of this, which is really off
11 the security side is who pays for it and
12 what's the operational impact.

13 I mean, for instance, the ship
14 comes into port. Is the CO of the ship having
15 to send in messages say to the database we're
16 coming in.

17 So the more real time you want to
18 do it, the more you have to consider what
19 those types of operational realities are going
20 to be. So just something to consider.

21 CO-CHAIR ALDER: We'll stay
22 focused on the question.

1 CO-CHAIR GIBSON: Well who's going
2 to pay for it is the subject of the last
3 working group, so stay tuned. However, are
4 there anymore comments on databases? We'll
5 move along.

6 So, it's Bi-Directional Sharing,
7 also known as Federal Access to Non-Federal
8 Bands.

9 MS. OBUCHOWSKI: Okay. This is
10 Janice Obuchowski, and I'm reporting on behalf
11 our committee. And Jennifer and I have co-
12 chaired it.

13 We certainly, running through the
14 slides here, we certainly had a lot of energy
15 applied here. When I looked at the list of
16 members, I think we're missing somebody
17 because we had ample conversation. And I'm
18 surprised there's Jennifer, myself and only
19 four others.

20 (Off microphone comments)

21 MS. OBUCHOWSKI: We had a number
22 of meetings, and one of the areas I believe

1 that you'll see covered in very good detail
2 when you see the report that's on the NTI
3 website is that the taxonomy of methods of
4 sharing is pretty extensive when you get right
5 down to it.

6 Everything from resale to license
7 to negotiated, it's quite interesting just to
8 get into the minutiae of this. And that we
9 certainly did.

10 NTIA asked us four questions.
11 What methods could be used? We looked at that
12 in great detail, and that's covered in the
13 taxonomy.

14 Would federal users be expected to
15 pay? We came back with an answer, which was
16 essentially it depends. Unlicensed use at the
17 users on risk, not something people thought
18 needed to be paid for.

19 One of the sticky questions that
20 came up as we looked at this was that the idea
21 of users from the federal side using
22 commercial spectrum that is not currently used

1 seems quite reasonable.

2 But then you get into the issue of
3 optionality, and it turns out optionality is
4 a big issue for both federal users and
5 commercial users.

6 You can look at spectrum that is
7 not being utilized in 50 percent or more than
8 50 percent of the geography of the country.
9 And yet, in talking with carriers, they said
10 well, if we permit longer term utilization
11 here, that affects our optionality in terms of
12 resale, in terms of future use, et cetera.

13 So it gets to be a pretty time-
14 based discussion. Would access only be
15 available if the non-federal licensee does not
16 have an immediate short-term or long-term
17 need?

18 That was the easy question. I
19 think there was consensus around a yes in the
20 short term, but again, the issue of
21 optionality came very much to the fore.

22 And then the fourth question that

1 came from NTIA. What band and location
2 combinations can support large federal
3 exercises? Since we got so bogged down in the
4 minutiae of approaches, we never really want
5 to address this one.

6 And we went back to NTIA and said
7 for the next round we'd appreciate your
8 highlighting for us some specific bands so
9 that discussion could be more fruitful.

10 We did achieve quite a bit of
11 agreement outlining these scenarios, outlining
12 regulatory issues where there was consensus.
13 There was an agreement that NTIA and FCC
14 should issue some joint statement of
15 principles that would apply here.

16 There was agreement that perhaps
17 in this next round we should go back and look
18 at NTIA as well as FCC rules to see if some of
19 them could be modified, in the case of NTIA,
20 perhaps expanded to facilitate sharing.

21 And we at least discussed the
22 implementation of sharing principles in open

1 proceedings. I wouldn't necessarily call that
2 an area of agreement, however.

3 Looking at recommendations going
4 forward, I wouldn't say we've made them yet.
5 Although Karl, Jennifer and I have been in
6 conversation about that.

7 And one of our jobs to accomplish
8 before October will be to turn some of the
9 areas of common agreement into
10 recommendations. And in that respect, I guess
11 I was remiss in saying we're certainly seeking
12 the participation of the new members of the
13 committee.

14 We didn't achieve full consensus
15 on a lot of this, and so as we're proceeding
16 to issue recommendations, I think in some
17 sense much of this is open.

18 Moving forward, areas of future
19 work, we're looking for guidance from NTIA on
20 specific bands.

21 The co-chairs would recommend a
22 look at the use it or share it principles that

1 have been more current since this committee
2 was chartered and we'll lay this out on our
3 first organizational call as to whether this
4 is a desirable area for further study.

5 And we'd like to follow up on
6 previous issues that were raised but not
7 decided, how to update rules and regulations,
8 remove regulatory obstacles.

9 If there are prohibitions or
10 constraints on federal users that could be
11 modified in terms of going back and looking at
12 parts of the NTIA red book and manual that do
13 permit two way sharing but haven't really been
14 scrutinized too carefully.

15 We all agreed on a statement of
16 principles, but we didn't write one. So that
17 could be at least the draft, not one,
18 obviously we can't write for NTIA or FCC but
19 perhaps recommend concepts.

20 And then I guess a personal walk
21 on proposal from me would be if we're going to
22 look at two way sharing at least in a

1 confidential way, we should probably be
2 looking at two way utilization.

3 There's talk about a federal
4 scorecard. I think there's a lot of rhetoric
5 around commercial use. Perhaps much of this
6 use would be more concentrated in certain
7 regions of the country than others.

8 And perhaps that's an area that
9 could be explored. So that is our overview.
10 Jennifer, committee members of the last round,
11 further observations? Glad to see that Steve
12 is now an official member of --

13 (Laughter)

14 MS. OBUCHOWSKI: -- our group
15 because I must say Tom and he work in very
16 close tandem on our committee and that was
17 great.

18 So thank you very much, look
19 forward to being re-chartered and do invite
20 new members and thank the members who did work
21 in this because we did get a lot of work done
22 even though we didn't completely close on

1 recommendations.

2 CO-CHAIR GIBSON: Jennifer.

3 MS. WARREN: Yes, Jennifer Warren,
4 co-chair. I also wanted, well Janice
5 presented the PowerPoint. That is, there's a
6 report, an actual draft report that was also
7 distributed as well which seeks to, which the
8 PowerPoint kind of drew from obviously.

9 And I think that's before you for
10 next time to consider. There are some self-
11 recommendations in there with respect to at
12 least the question on payment for temporary
13 access and draw your attention to those and
14 some other, then, options and answers to the
15 other questions.

16 I think one of the things just to
17 draw attention to perhaps is that with respect
18 to the issue of temporary spectrum access, we
19 on our own sought to expand discussion to
20 permanent access and what would be the
21 questions with respect to that.

22 We had no consensus. We had the

1 beginnings of discussions, but we had no
2 immediate path toward consensus on that. So
3 since it wasn't an actual task question, we
4 let that one slip.

5 But just wanted to bring that up
6 that we did try to start that dialogue, and
7 that might be something that NTIA could find
8 useful as well at least from my perspective.
9 Thank you.

10 CO-CHAIR GIBSON: So to just
11 clarify, it's Mark Gibson. Do you think
12 you'll have this ready for voting next meeting
13 for approval?

14 MS. OBUCHOWSKI: I guess that
15 depends on our first committee meeting.

16 CO-CHAIR GIBSON: Okay.

17 MS. OBUCHOWSKI: I don't want say.
18 Jennifer and I commit to coming up with
19 recommendations that we believe were consensus
20 recommendations --

21 CO-CHAIR GIBSON: Okay.

22 MS. OBUCHOWSKI: -- out of the

1 last session.

2 CO-CHAIR GIBSON: Cool. All
3 right, good. Thanks. Karl.

4 MR. NEBBIA: I just wanted to
5 check, Janice. Do you see any value in me
6 stating what I glean to be the
7 recommendations, or do you just want to take
8 that on in your internal work?

9 MS. OBUCHOWSKI: No, that would be
10 valuable.

11 MR. NEBBIA: Okay. So I went
12 through the report they had provided, and as
13 Jennifer discussed, some of them kind of look
14 like soft recommendations where I had to kind
15 of firm up the edges a little bit to figure
16 out what specifically they were saying.

17 But it seemed to me it came down
18 to I saw four things in there. The first one
19 was that NTIA should consider the potential
20 methods described in the report.

21 And they went through a series of
22 different ideas, when discussing among the

1 agencies and with the FCC the concept of
2 federal access to non-federal bands.

3 So all of you know in the AWS3
4 rulemaking, part of the decision there was to
5 put off kind of firming up what that was going
6 to be with those bands.

7 So clearly we need to get back
8 together and have that discussion. The second
9 one was NTIA should recognize and inform the
10 agencies that the kind and duration of access
11 may impact the cost approach to that access.

12 So you want long-term access,
13 there may be a cost to it, that type of thing.
14 Third, NTIA and the FCC should review their
15 regulations to ensure that they do not hinder
16 spectrum-sharing arrangements, including
17 federal participation in secondary markets or
18 direct negotiation of sharing agreements.

19 And then the last one was NTIA and
20 the FCC should conclude a joint statement of
21 principles to encourage sharing between
22 federal and non-federal users.

1 All those things they've put into
2 play, I think, would have a significant impact
3 on how we do business.

4 CO-CHAIR GIBSON: Anything more?
5 Okay. Anything else? Good. The last one,
6 which is --

7 CO-CHAIR ALDER: Spectrum cost
8 recovery.

9 CO-CHAIR GIBSON: -- spectrum cost
10 recovery, yes. Is that Michael?

11 MR. CALABRESE: Michael Calabrese,
12 and this the Spectrum Sharing Cost Recovery
13 Alternatives, or I guess I've been calling it
14 just paying for sharing.

15 And the question, the NTIA
16 question which is our charter, a little bit
17 like the sharing by database management. It's
18 a single, simple question that opens up
19 potentially a lot of cans of worms.

20 But how should federal agencies be
21 resourced to develop and implement sharing
22 with non-auction licensees or services such as

1 unlicensed devices.

2 So this could be, well in fact,
3 I'll get to that in a minute: the reason that
4 that's a critical question. Here are, the
5 next slide are members who participated in
6 some earlier discussions.

7 I think like a few of the other
8 committees we've been mostly on hiatus but
9 want to rev up again now. So we're really
10 welcoming and I think have been waiting for,
11 to some extent, the new CSMAC to get some new
12 blood in this discussion.

13 So certainly if you want to
14 participate in this group, let me know and
15 join on. Or if you were on and won't be,
16 which may be the case for a few people --

17 So the background is that, I think
18 most folks here know that the spectrum
19 relocation fund has facilitated the
20 reimbursement of agencies that need to clear
21 certain bands for auction.

22 So back in 2006 with the CSEA and

1 then the 2006, I'm sorry the AWS1 auctions and
2 now that will obviously come into play as well
3 with the AWS3 auctions at the end of this
4 year. However, the problem is that CSEA and
5 the spectrum relocation fund limits
6 reimbursements to costs that are related to
7 bands that are auctioned. So the bands
8 actually, it's very band-specific.

9 The bands actually, the costs all
10 have to relate to facilitating the auction and
11 then it comes from the auction revenue.

12 So that creates a, and in fact
13 this subcommittee grew out of our prior
14 incentives subcommittee because as part of our
15 go-round about why agencies have little
16 incentive either to share their bands with
17 commercial use or to even improve their own
18 spectrum efficiency when it's unrelated to
19 their own mission.

20 There's no source of reimbursement
21 for costs related to facilitating more robust
22 band sharing, and that would be particularly

1 true for what is conventionally thought of as
2 unlicensed or opportunistic access.

3 So this will come up I imagine
4 potentially in the 3.5 gigahertz band where
5 you will have some auctions for priority
6 access licenses but then not for possibly the
7 vast majority of use, depending on how that
8 shakes out.

9 So our incentive subcommittee a
10 couple years back previously did a very high
11 level recommendation that the spectrum
12 relocation fund could be expanded into a type
13 of spectrum efficiency fund, something that
14 would have perhaps a revolving fund, perhaps
15 various sources of revenue but that it could
16 be used to reimburse agencies for a wider set
17 of costs.

18 I think Larry Strickling has
19 spoken in favor of this in concept, and the
20 PCAST endorsed it, the concept of very
21 directly, although not with any operational
22 detail.

1 So some of the issues that we
2 identified on previous calls include should it
3 be a revolving fund, sort of maybe one general
4 fund or established on a band-by-band basis,
5 which I think is generally the case now.

6 Should there be more than one
7 fund? What are potential and feasible revenue
8 sources? What categories of cost should or
9 should not covered?

10 Obviously, this would go very
11 quickly if it was nothing but a procurement
12 fund for new and better equipment. And what
13 approval and administrative process could be
14 involved?

15 For example, we're talking about
16 where should it sit really in terms of
17 different points of that process. And OMB and
18 NTIA, do we need experts to make
19 recommendations even if it is ultimately an
20 OMB decision?

21 The next steps is to, we'll have a
22 call within the next few weeks to revisit and

1 update the scope of the inquiry and talk about
2 some of the possible revenue options at least
3 because I think that'll give us a sense of
4 what we need to look at in terms of authority
5 and process.

6 I'd like to get a briefing by OMB
7 on the current spectrum relocation fund and
8 exactly how that works and what they would
9 consider to be important considerations.

10 And similarly from the FCC on
11 legal authority because some of this, the FCC
12 could potentially be involved in this and
13 would seem to have almost a greater in some
14 ways. But we're a little unclear on
15 respective legal authority.

16 We need to collect additional
17 information on analogous models and ideally
18 confer with DoD and possibly other agencies on
19 perceived needs and constraints.

20 So that could include, when we
21 talk about what costs, up-front costs for
22 planning and testing, how significant is that?

1 And how would they see something like this
2 working at all?

3 So I think we can, by October if
4 you're going to ask me that next, I would hope
5 we could at least flesh out some concrete
6 alternatives along with some pros and cons and
7 present that back in a short, preliminary
8 report for feedback and discussion.

9 I don't think we'll necessarily
10 come back and say okay, here's the thing to do
11 at this point. But I think we need to pin
12 down a little better what the scope of this is
13 and what some of the options would be.

14 CO-CHAIR GIBSON: I get to ask a
15 question first because I'm a co-chair, but
16 Janice will be next. You mentioned in one of
17 the bullets collected --

18 CO-CHAIR ALDER: Mark Gibson.

19 CO-CHAIR GIBSON: This is Mark
20 Gibson by the way. I'll get used to it. Yes,
21 Mark Gibson, Co-Chair Mark Gibson. The
22 collect additional information on analogous

1 models like UTIM, are you looking at that in
2 the sense of the per-device fee or the
3 administration like UTIM served or both?

4 MR. CALABRESE: Well, it could be
5 both.

6 CO-CHAIR GIBSON: Okay.

7 MR. CALABRESE: But I think a few
8 have come up primarily I think in terms of
9 revenue options, like what kinds of revenues
10 but then also administratively how could it
11 operate and who would have authority to do
12 that.

13 CO-CHAIR GIBSON: Okay.

14 MR. CALABRESE: Because we also
15 need to know if it's something you have to go
16 back to Congress. That's one reason to talk
17 to the FCC. Are there ways to do this
18 administratively.

19 CO-CHAIR GIBSON: Janice.

20 MS. OBUCHOWSKI: When I look at
21 this question, I think that as a realist, been
22 around Washington as long as I've been around

1 spectrum, you're not going to get Congress to
2 answer this in a time that is sufficiently
3 rapid to address the national need.

4 Because if we could solve some of
5 this quickly, I mean the possibilities in
6 terms of unlicensed sharing and all sorts of
7 database sharing would be unlocked.

8 And they would be in our national
9 self-interest, no question. Do I really think
10 this OMB and this Congress is going to solve
11 this for us? I really don't.

12 So just kind of musing a little
13 bit here, I would love to see perhaps in the
14 context of the NTIA, FCC joint approach here
15 or just in terms of the corporate power behind
16 this committee for people to kind of look at
17 this problem and at least find some way to
18 move forward that might be private-sector
19 funded or based on fees because you're going
20 to sit there and do a taxonomy of possible
21 solutions. But frankly, anything that deals
22 with the big political picture here in

1 Washington in short order isn't going to get
2 resolved.

3 And frankly, the problem is crying
4 to be answered in terms of unlicensed which
5 could absolutely boom in this country, is
6 booming but could boom even more.

7 And I don't think it's an easy
8 question of course because you get the problem
9 of free riders. Whenever the private sector
10 steps up, you get the free rider problem.

11 We're looking, oh yes, you can
12 solve it and we'll go and, but that, I guess
13 the only thing I'd say bottom line is it's
14 important to be real here.

15 We can talk about options, but if
16 we want to move we have to come up with some
17 solutions that are going to work in the
18 context of some of the gridlock that exists in
19 Washington right now.

20 CO-CHAIR GIBSON: Thanks. Any
21 other, Steve Sharkey.

22 MR. SHARKEY: Just I guess a

1 comment on the CSEA. I mean I think the
2 current language does have some provision for
3 reimbursements around developing sharing and
4 sharing bands.

5 And it might be possible if you're
6 looking for a briefing from OMB if there's a
7 more expansive view that can be taken looking
8 at that for, to the extent that there is, or
9 ways to use parts of that money to look at
10 improving sharing overall.

11 I mean 3.5 gigahertz bandwidth is
12 going to be sharing, right. I mean if there
13 are equipment improvements that can be related
14 to that somehow that can help improve sharing,
15 there might be some ways to interpret that
16 that could be a little bit more expansive than
17 a previous view of it.

18 MR. CALABRESE: Yes, Michael
19 Calabrese again. That's a really good point.
20 I think we should probe that. And also
21 particularly if you couple that with the fact
22 that at least under the PCAST approach, you

1 mentioned 3.5 gigahertz.

2 There will often be both licensed
3 and unlicensed in the same band, so if you
4 have priority access licenses that people are
5 paying for and opportunistic access that is
6 not being paid for, it could conceivably be
7 that there is some revenue that could cover
8 the federal costs in general.

9 And even if certain uses are, in a
10 sense are, I don't know if you want to call it
11 free riding or not, but that could take care
12 of the problems if you think about the naval
13 radars and the 3.5, for example.

14 We should at least look at whether
15 some of those costs can come from where we
16 know there will be revenue.

17 MR. SHARKEY: This is Steve
18 Sharkey again. I guess, and DoD put out kind
19 of a strategic document that noted the
20 importance of sharing.

21 And part of that, and it gives as
22 a, as they make changes in some bands or move

1 out of other bands, they are looking to, you
2 know, at least part of the roadmap was that
3 equipment would be more amenable to sharing in
4 a variety of ways.

5 So if there's a way to tie that
6 and some overall equipment changes that could
7 affect sharing in other bands, it may be
8 another area that could help free up greater
9 sharing for even unlicensed services.

10 CO-CHAIR GIBSON: Bryan and
11 Jennifer.

12 MR. TRAMONT: Okay. It's Bryan
13 Tramont. I think we're doing a dramatic re-
14 enactment of our previous conference calls on
15 this topic that I will nonetheless do again.

16 Consistent with what Janice was
17 just saying and in my earlier discussion, I do
18 think it's very important that we focus on who
19 the cost causers are in any individual
20 situation so that if it's an unlicensed use,
21 then unlicensed users should be the ones
22 paying for it.

1 If it's a licensed use, then
2 licensed should be the ones paying for it.
3 There are creative ways, I think, to talk
4 about either regulatory fees or equipment
5 approval fees that we could maybe find a way
6 to get the cost causer to be responsible
7 without changing the statutes, sensitive to
8 Janice's concern.

9 But I do think we really need to
10 focus on the cost causer if we're going to
11 make rational economic decisions about
12 spectrum use going forward.

13 I'm channeling my former boss,
14 Commissioner Furchtgott-Roth on this. But I
15 think it's very important that if that's the
16 way it's going to work you need to focus on
17 it.

18 What are you enabling, and does it
19 actually make cost-benefit sense.

20 CO-CHAIR GIBSON: All right,
21 Jennifer.

22 MS. WARREN: Jennifer Warren, and

1 I'm not sure about a dramatic re-enactment
2 because I think I'm going to say I agree with
3 Bryan.

4 MR. TRAMONT: Well, that's
5 dramatic in and of itself.

6 MS. WARREN: And I'm sure Steve or
7 someone can correct me if I'm wrong, but CSEA
8 I think only applies to auction spectrum. So
9 it's not even really.

10 MR. TRAMONT: Which could be
11 shared.

12 MS. WARREN: I'm sorry.

13 MR. TRAMONT: Which could be
14 shared.

15 MS. WARREN: Which could be
16 shared, so I'm not, it doesn't seem like it'd
17 even be available as a revenue, or source of
18 reimbursement for spectrum that's unlicensed
19 and not auctioned.

20 So I was going to say I was
21 interested more on the regulatory fees, the
22 administrative devices, what you said.

1 And I'm just making the focus on
2 the cost share because I'm not sure how,
3 again, back to Janice's point, if we have to
4 get amendments to existing legislation, it's
5 just going to become more than what we're
6 looking for.

7 CO-CHAIR GIBSON: Steve.

8 MR. SHARKEY: This is Steve
9 Sharkey. I think part of that is
10 interpretation, too. To the extent that there
11 are changes, there are provisions for changes
12 to equipment that facilitate sharing. It
13 doesn't necessarily say that those changes,
14 that the equipment would be limited to
15 operation in the band that was auctioned for
16 sharing, right.

17 So if they make overall changes
18 that facilitate sharing that could also impact
19 other bands outside of the one that was
20 shared, I think there is an interpretation
21 that could be made that could extend that.

22 And I certainly agree with Bryan

1 also that you've got to look at the, kind of
2 the fair disposition of those costs. And some
3 of these changes are particularly, like for
4 the AWS3 spectrum that we're looking at. I
5 mean the relocation costs are high, so it's
6 not clear that there's a lot of extra money to
7 do other things or how that's expanded. So I
8 think you'd just have to have some realistic
9 look at what costs are there.

10 CO-CHAIR GIBSON: Karl.

11 MR. NEBBIA: Karl Nebbia, just
12 wanted to nominate Steve Sharkey to be the
13 head of OMB so he could make those --

14 (Laughter.)

15 MR. NEBBIA: -- calls, or does
16 that sound like, does that sound like just my
17 kind of liberal interpretation. Just kidding.

18 (Simultaneous speaking.)

19 MR. NEBBIA: But I think talking
20 to OMB about how they see those things I think
21 is helpful. I think also understanding how
22 the Congressional Budget Office scores things

1 because ultimately we're in that world where
2 everything has to score neutrally I think.

3 And at least that's been the
4 general approach, but I know for instance, on
5 5 gigahertz right now, agencies are spending
6 money, doing analysis, going to international
7 meetings, doing a lot of work on this issue at
8 this point without any reimbursement in the
9 process.

10 And I know that in the last days
11 of the draft legislation that became CSEA, it
12 actually was in there dealing with unlicensed
13 spectrum.

14 But it was one of the last
15 decisions that was made somehow along the way,
16 and it was removed from the back and forth.
17 So I think, all that I think, we've got to
18 look into.

19 But once again, these things,
20 these activities right now are under way. And
21 as we start looking to spectrum efficiency
22 fund, it's probable. See, and I think it's

1 tough because of the specific cost
2 attribution.

3 I don't think you can use the
4 existing fund and say we're going to fund
5 unlicensed activities based on getting the
6 licensees to pay for it. That certainly would
7 be a challenge.

8 But also I think part of the
9 question gets to be in establishing something
10 that looks a little bit more like a research
11 fund for developing these concepts.

12 And that gets much harder to tie
13 to a specific band and so on, but that's where
14 we've got to define and develop these concepts
15 that are more spectrum shareable.

16 CO-CHAIR GIBSON: Okay. Thanks,
17 Karl. Any other thoughts or comments? Going
18 once, twice, okay. Larry, you wanted to make
19 some wrap up? Larry Alder.

20 CO-CHAIR ALDER: Yes, I think to
21 wrap, this is Larry Alder. To wrap up, one
22 of our goals of this CSMAC is to broaden the

1 participation. So you've heard a lot from the
2 existing membership, people carrying over.

3 We really want to make sure
4 everyone gets involved, so what I'd like to do
5 is ask new members that are interested in
6 these various subcommittees, contact the co-
7 chairs.

8 And then if the co-chairs could
9 update their membership lists by the next
10 meeting, that would be very helpful. And then
11 we'll have an update. And we'll hope to see
12 at least some broader participation across
13 these groups when we get there.

14 What we'd also like to do is
15 facilitate some more debate here in the room,
16 and to do that, one of the ideas was to bring,
17 the goal here actually, is Bruce likes to get
18 the presentation materials a week in advance.

19 Am I correct, Bruce? So if you
20 can submit a week in advance recommendations,
21 back-up material, then people can have a
22 chance to read them in advance.

1 And we can have a healthy debate
2 here in the room. I think the expectation
3 should be you're going to put forward your
4 recommendation. We're going to debate them
5 and discuss them.

6 There may be a chance it gets
7 approved at that meeting, but there's probably
8 a better chance that, due to the discussion,
9 there's additional input and it takes an
10 additional round to get it done.

11 So you might be thinking in your
12 working groups it's going to take a couple of
13 meetings to get them through. But that way,
14 hopefully we can have some, people aren't just
15 rubber stamping what comes in the room from
16 the working group. There's actual
17 participation.

18 CO-CHAIR GIBSON: And the only
19 thing I'd add to what Larry said, this is Mark
20 Gibson, would be to copy Larry, me and Bruce
21 on your request to participate because Bruce
22 needs to keep track of this.

1 And for some reason, Larry and I
2 do, too. Not for some reason. We are co-
3 chairs. For another reason, thank you. It's
4 good Larry Strickling's here. He keeps us
5 saying the right things. Too many Larrys.
6 Not too many Marks, and naturally I forgot
7 what I was going to say. But anyhow, just
8 please copy us on everything so we can keep
9 track of what's going on. Thank you.

10 CO-CHAIR ALDER: I think we're
11 ready for Karl's presentation.

12 MR. NEBBIA: Okay. Just a quick
13 update on various things that NTIA's working
14 on. Most of them are very public, and
15 therefore, you know about them.

16 The AWS3 process certainly is
17 moving forward. The transition plans were
18 submitted and found sufficient. NTIA has
19 submitted the cost estimates.

20 As everybody talked about here
21 earlier, DoD has worked with a group of agency
22 folks that have helped with our effort to

1 improve the coordination distance result.

2 And I think they've reached a good
3 agreement on that, and it should, I think,
4 significantly decrease the numbers of times
5 that coordination is required.

6 The issues still then in
7 coordination appear to be heading toward the
8 portal approach for most of the agencies,
9 certainly with DoD.

10 And we're working with ITS on our
11 side and for the 1695 to 1710 band to create
12 a portal for people doing the weather-type
13 activities. So in the near future we're going
14 publish the plans in a publically releaseable
15 form. We will also be releasing with the FCC
16 a joint public notice talking about
17 coordination.

18 As part of the plans, DoD has
19 promised because they have to redact a lot of
20 the information in the plans regarding
21 specific locations and frequencies, they've
22 come up with a process of providing to the

1 interested parties a workbook that will give
2 an indication kind of by ZIP code of how many
3 different activities will require coordination
4 and the specific functional area that that
5 coordination will be with.

6 So I think that will prove very
7 helpful, and then of course the Commission
8 later on will be releasing their actual
9 auction procedures. So that's moving forward.

10 3.5 gigahertz band, there's been,
11 I think a significant effort certainly between
12 NTIA and the FCC and DoD to discuss how we can
13 improve the technical modeling that at least
14 as a first point was, as you know, in the
15 Commission rulemaking. It basically went with
16 the fast track exclusion areas, and therefore
17 the first step in accepting that static
18 approach is the first step to making that band
19 useful.

20 The next step appears to be can we
21 improve upon, with new information, we have
22 new analytical techniques. Can we improve

1 upon the exclusion areas?

2 Later you've got to get into what
3 function the SAS actually performs and how
4 that would be done, but certainly the near
5 step would be to kind of redefine those areas.

6 The two bands at 5 gigs, 5350,
7 5470, first of all, there's slow progress in
8 identifying and analyzing the potential
9 approaches to interference mitigation.

10 This band needs to deal with
11 airborne, mobile and satellite operations that
12 were essentially avoided during the previous
13 5 gigahertz DFS issue.

14 So that's why that's much more
15 complicated. The second band, 5850, 5925, I
16 should mention that first band there's a lot
17 of international discussions going on with
18 respect to that also.

19 The 5850, 5925 is not receiving so
20 much attention internationally because I think
21 there's already a mobile allocation. So it
22 doesn't require their entrance into it.

1 But of course with the U.S. we've
2 got potentially a conflict between expanded
3 Wi-Fi type systems and the DSRC activity
4 coming to fruition now after a number of years
5 of preparation.

6 So they are working together in an
7 IEEE Tiger Team to try to see if they can work
8 through an approach. They've discussed a
9 couple mitigation frameworks.

10 Interference mitigation frameworks
11 have been put on the table by members of the
12 Wi-Fi community. One of them I think may
13 impact the DSRC existing channeling plan.

14 And, therefore, that has some
15 folks looking at that as a concern. The other
16 one is more I think of a sense of a void
17 concept which would require further
18 development.

19 But in either case I don't think
20 the discussions have gotten into significant
21 detail. We would certainly like to see these
22 discussions move more quickly. At least in

1 our view it seems like nobody benefits from
2 delay. Ultimately, the Wi-Fi industry would
3 benefit by movement forward. But also the
4 auto industry is looking at this.

5 Well, what does this mean to me
6 that a major, commercial activity is eying our
7 spectrum? We've got stuff that's unresolved.

8 So I think they're sensing a
9 little bit after all the work they've been
10 doing, suddenly there's this question mark
11 hanging over them.

12 So I think even from their
13 standpoint, we'd hope that they'd see there's
14 benefit in trying to move the ball forward and
15 come to some answer.

16 So all that work is going on. We
17 released spectrum.gov a few months back, and
18 I think most of you have gotten to see that.
19 I think that was right around the time we had
20 our last meeting.

21 So I hope people have found that
22 information useful, at least in beginning to

1 develop your thoughts on what these bands look
2 like. And we're going to continue our
3 development of that.

4 Immediate task for us is to try to
5 create a little bit more of an IT-friendly
6 form other than, right now we've got PDF files
7 linked to the website.

8 So we'll be looking at that. We
9 also released our quantification plan on June
10 5th, which we talked about earlier. So that's
11 kind of all the things we've been doing, among
12 the normal day jobs and things we have to deal
13 with all the time.

14 CO-CHAIR GIBSON: Okay. All
15 right, I think you probably have the con for
16 the next one as well, the Industry/Government
17 Collaboration. Oh yes, any questions for
18 Karl? It's a team effort here. All right,
19 I'll take that as a no.

20 MR. NEBBIA: Okay. The next one I
21 think it was Tom, maybe some others that had
22 raised this issue a couple meetings ago,

1 industry government collaboration.

2 And it was one of those things
3 where great minds think alike. We were
4 already thinking about the subject and trying
5 to identify how we might want to move this
6 forward.

7 And we certainly recognize that
8 there's a tremendous importance in how we work
9 together in the future. So we would like to
10 put together, first of all, we'd like a group
11 here within CSMAC to begin to specifically
12 consider this.

13 It is a little bit different from
14 the transitional sharing issue, but we at NTIA
15 would like to put together kind of a
16 multifaceted plan for such a group to
17 consider.

18 We would like the group to
19 consider what role CSMAC might continue to
20 play in these types of government/industry
21 collaborations.

22 We believe that the recent work

1 under the AWS3 effort has certainly shown the
2 value of small group activities pulling people
3 together who are really focused on the issue.

4 At the same time we believe that
5 public activities are important though
6 obviously in the first round of CSMAC working
7 groups, it was the mass public participation
8 that actually made it more difficult for
9 certainly, for some of the national security
10 agencies, I think, to participate.

11 So we'd like to look at a
12 multifaceted approach. How do we get this out
13 on the table? How do we start talking with
14 the commercial wireless industry, for
15 instance, on one side, the unlicensed industry
16 groups and technology people on the other side
17 about where do we go next? What bands are up
18 there? Can we actually have a dialogue around
19 what bands offer possibilities and what
20 approaches we might be able to take?

21 So I think we'd like to put
22 together a plan and ask for this group to take

1 a look at it and give us their recommendations
2 back on that as we develop it.

3 But once again, we'd like to see a
4 multifaceted approach here. So we will, it's
5 our intent to have this conversation
6 internally. It's our hope that we might be
7 able to deliver a draft to the group that gets
8 set up before the next meeting so they could
9 have some time to begin to look at it in
10 advance.

11 But that's a matter of our kind of
12 internal processes and government coordination
13 processes and so on, but that's certainly what
14 we'd like to do.

15 So we'd really like to see
16 government and industry on board with the idea
17 of how are we going to work together to come
18 up with the best answers, as opposed to just
19 firing broadsides, generally through the press
20 or other friends.

21 So that's our thought, but I know
22 we would be, we're going to be looking for

1 somebody, I think, to chair or co-chair that.
2 I've had at least one volunteer so far. And
3 that's my thoughts.

4 CO-CHAIR GIBSON: Do you want to
5 entertain questions on that now?

6 MR. NEBBIA: Yes, sure.

7 CO-CHAIR GIBSON: Well, I have a
8 couple. This is Mark Gibson.

9 MR. NEBBIA: No, I don't think so.

10 CO-CHAIR GIBSON: Just to clarify,
11 are you, is NTIA looking to develop this and
12 then bring it to CSMAC, or are you looking to
13 get feedback as to people you want to have
14 participate?

15 MR. NEBBIA: I think what we would
16 like to do at this point is we'd like to
17 develop kind of a framework that we see and
18 then ask for feedback on that --

19 CO-CHAIR GIBSON: Okay.

20 MR. NEBBIA: -- which may involve
21 adding things or saying no, we really don't
22 think that's --

1 CO-CHAIR GIBSON: Okay.

2 MR. NEBBIA: -- working, but we're
3 kind of looking at a combination of public
4 activities and more closed activities that
5 have been successful.

6 CO-CHAIR GIBSON: Okay. Bryan.
7 Me, too. Any other questions or comments?

8 CO-CHAIR ALDER: So what should
9 people do that are interested in helping?
10 Should they send their names to Bruce?

11 MR. NEBBIA: I think Bruce and you
12 two wanted to be on that email distribution,
13 but once again, if you would like to co-chair
14 the group, if you could specifically let us
15 know also because in the end, that's who we're
16 working through.

17 CO-CHAIR ALDER: Okay. And we
18 discussed, I think this is an important topic
19 that is kind of threading through a lot of the
20 working groups.

21 MR. NEBBIA: Okay.

22 CO-CHAIR GIBSON: Any other

1 thoughts or comments? This is Mark. Harold
2 Feld.

3 MR. FELD: This process, I don't
4 understand how, is this, especially in light
5 of that last comment, because I agree. This
6 public record comes up a lot.

7 Is the notion to have a separate
8 working group that works in the same ways as
9 the other working groups? Or is the notion to
10 have something else that kind of works more
11 collaboratively with the other working groups
12 with regard to this overall theme?

13 MR. NEBBIA: My intention is to
14 have a separate subcommittee as we call them
15 at this level and to look at this issue
16 specifically. And once again, our intention
17 is to try to prepare something to give as kind
18 of the straw man.

19 CO-CHAIR GIBSON: Okay. And have
20 that by October, right?

21 MR. NEBBIA: That's --
22 (Simultaneous speaking)

1 CO-CHAIR GIBSON: Okay. October
2 will be a fun meeting. Michael Calabrese.

3 MR. CALABRESE: So this would be
4 within the CSMAC process, but would it involve
5 a lot of outside parties as we did with the
6 AWS3 working group?

7 MR. NEBBIA: Let me clarify. The
8 first question of putting together the
9 framework would be, we would like to provide
10 to you for your feedback.

11 The question of how CSMAC
12 participates in ongoing part of the
13 collaborative process is a subset of what gets
14 presented as part of the plan.

15 So in the end you may say well, we
16 think CSMAC can continue to provide this role,
17 but yes, NTIA, we agree, you should do that
18 aspect and you should do this aspect and so
19 on.

20 MR. CALABRESE: Okay.

21 CO-CHAIR GIBSON: Any other
22 comments? Okay. We're at the point now where

1 we open it for public comment. So is there
2 any public comment in the room? Okay. Any
3 public comment on the phone? Okay.

4 MR. NEBBIA: In a few months, I'm
5 going to be making the public comments.

6 (Laughter.)

7 CO-CHAIR GIBSON: I thought this
8 was going to be easy. I just defer to Paige
9 to handle it, if there's some sort of statute
10 for ex-OSM. Okay. I think we're at the point
11 --

12 CO-CHAIR ALDER: There was one
13 thing that, did you cover stuff about going
14 forward? I think we've covered the stuff
15 about going forward.

16 CO-CHAIR GIBSON: Yes, we covered
17 that.

18 CO-CHAIR ALDER: Okay.

19 CO-CHAIR GIBSON: Okay. And so
20 now where we are is closing remarks by co-
21 chairs. I'll speak --

22 MS. OBUCHOWSKI: I had one.

1 CO-CHAIR GIBSON: Yes, Janice.

2 MS. OBUCHOWSKI: I'd like to
3 observe that Jennifer and I have been
4 observing together that Karl's leaving us at
5 least in this capacity and that he really was
6 missing a device he needed to herd cats
7 because there have been a lot of really
8 unusual paths that have passed through the
9 CSMAC including many around the table.

10 So with that said --

11 CO-CHAIR GIBSON: Well, I came to
12 this sort of just because I'm co-chair. These
13 two did most of the work, so thank you. I'm
14 pointing to Janice and Jennifer, but they
15 asked me to say a few words.

16 And so what I would say is I've
17 known Karl for pretty much my career but
18 mostly in the last couple of years working in
19 CSMAC, and it's been a pleasure.

20 I can always expect something
21 focused and interesting, but I think as you go
22 off into the great unknown of retirement, you

1 will remember fondly the days of CSMAC and
2 wish you had this instrument. So I suggest
3 that you open it.

4 MR. NEBBIA: They took my IRAC
5 gavel when I left. So I get to keep this?
6 Thank you very much.

7 CO-CHAIR GIBSON: So yes, you
8 could have used that to herd the cats.

9 MR. NEBBIA: Okay. I will.

10 CO-CHAIR GIBSON: So for Paige,
11 we'll give you one of those at the October
12 meeting. Just kidding. Yes, and for those on
13 the phone, it's a gavel.

14 CO-CHAIR ALDER: But yes, on
15 behalf of the whole committee, it's been a
16 real pleasure working with you for the last
17 several years.

18 (Applause.)

19 MR. NEBBIA: And I certainly
20 appreciate all the support that I've gotten,
21 both in my career but in this group
22 specifically.

1 I appreciate the effort that
2 people have put in because I know you're all
3 kind of on your own time here, and it's a lot
4 of work.

5 So if any of you joined recently
6 thinking this is going to be an easy, show-up
7 type of thing, there is a lot of work to be
8 done. But we really appreciate it.

9 Years ago, we had another advisory
10 committee that spoke to OSM, and the way that
11 was set up was that OSM would write all the
12 recommendations. The advisory committee would
13 come together and do this. And we really
14 appreciate the effort that's gone into this
15 group and to the approach we've taken here.

16 So I do plan to keep working. I'm
17 not going off into the sunset, but I think
18 it's time for me to move on from what I'm
19 doing here. And I just want to thank
20 everybody for your help.

21 CO-CHAIR GIBSON: Thank you. It's
22 been a pleasure. Okay. I'm done. Are you

A				
ability 51:20	additional 10:7 102:16 103:22 117:9,10	aggregate 32:15	103:22	approaching 19:12
able 12:1 25:15 33:3 50:4,8,9 55:3 55:19 58:13,18 59:4 61:4 75:7 83:18 126:20 127:7	address 20:14 38:22 44:3 73:14 89:5 105:3	ago 8:19 14:1 39:14 82:20 124:22 135:9	analyses 50:6	appropriate 23:20 25:1
above-entitled 136:4	addressing 23:21 29:2 36:16	agree 58:5,19 78:22 79:12 111:2 112:22 130:5 131:17	analysis 52:16 59:8 114:6	approval 74:12 77:9 94:13 101:13 110:5
absolutely 106:5	administration 1:2 74:18 104:3	agreed 5:16 31:12 59:19 91:15	analytical 120:22	approved 117:7
academic 34:22	administrative 101:13 111:22	agreement 32:4,5,7 49:4,9,10 89:11 89:13,16 90:2,9 119:3	analyzing 121:8	Archives 74:18
accepted 56:15,18 57:21	administratively 104:10,18	agreements 96:18	Anna 2:12 20:7	area 56:9 60:2 64:7 65:11 90:2 91:4 92:8 109:8 120:4
accepting 120:17	Administrator 2:11,12 12:9	ahead 12:3 25:7 50:21 55:9,10 85:8	annual 65:1	areas 11:16 40:6 56:13 86:22 90:9 90:18 120:16 121:1,5
access 3:20 11:4,4 13:5 67:6 71:6 72:15 83:5 86:7 88:14 93:13,18,20 96:2,10,11,12 100:2,6 108:4,5	admit 15:14	air 66:2	answer 44:22 67:9 75:7 76:7,9 87:15 105:2 123:15	arena 12:16
accomplish 90:7	adopted 70:13	airborne 121:11	answered 46:17 106:4	arrangement 31:22
accomplishments 7:7	advance 28:16 73:18 116:18,20 116:22 127:10	Alder 1:14,16 3:2,5 3:19 4:19 5:3,7,14 10:12 11:1 23:11 29:5 69:3,11,13 69:16 70:2 79:11 85:21 97:7 103:18 115:19,20,21 118:10 129:8,17 132:12,18 134:14 136:2	answers 93:14 127:18	arrangements 31:10,11,15 51:21 96:16
accounts 41:9	adversaries 84:17	alike 125:3	antenna 64:1 67:2	aside 47:2
achieve 89:10 90:14	advice 10:2	Allison 1:17 19:6,7	anxious 10:1,2	asked 25:21 31:17 75:2 76:6 87:10 133:15
acknowledge 61:12	Advisor 19:17	allocating 27:6	anybody 18:16 20:13,21 48:8	asking 65:6 81:5
Acknowledgment 3:8	Advisors 8:17	allocation 121:21	anymore 80:11 86:4	aspect 50:2 131:18 131:18
action 24:22 62:10	advisory 1:5,12 5:17 6:8 135:9,12	allows 49:10	apart 59:5	assess 76:15 77:12
active 26:21	advocacy 15:12,15	alluded 33:18	apologize 26:11	assessment 38:2
activities 80:1 114:20 115:5 119:13 120:3 126:2,5 129:4,4	aerial 11:5	alternatives 4:5 97:13 103:6	appear 119:7	assigned 27:7
activity 63:14,15 122:3 123:6	affect 109:7	amenable 109:3	appears 120:20	assignment 65:7,7 65:10,12,15
actual 35:2 64:18 82:9 93:6 94:3 117:16 120:8	affiliated 10:21	amendments 112:4	appendix 24:17 25:5	assignment-by-a... 67:19
add 33:17 45:17,19 49:22 68:13 117:19	afoot 42:14 44:3	America 4:7 19:2	Appause 134:18	assignments 65:9
added 39:2,2	afternoon 16:5	amorphous 31:18	applicable 58:2	Assistant 2:10 15:19
adding 128:21	agencies 10:5 65:6 66:18 67:18 68:12 76:8 77:8,13 78:5 79:2 82:21 96:1 96:10 97:20 98:20 99:15 100:16 102:18 114:5 119:8 126:10	amount 18:21	applied 86:15	Associate 2:11,12 12:9
addition 16:2	agenda 5:10 9:22 10:13	ample 86:17	applies 111:8	associated 65:10
	agent 40:10,11,17 40:18 45:7 52:20	amplify 58:6	apply 89:15	Association 18:7
		AMT 48:7	appoint 81:16	ASST 5:12 6:17 7:16 20:1
		analogous 102:17	appreciate 30:13 64:8 89:7 134:20 135:1,8,14	assumption 64:9 66:3
			approach 31:4,14 40:8 50:5 70:10 96:11 105:14 107:22 114:4 119:8 120:18 122:8 126:12 127:4 135:15	AT&T 15:19
			approached 71:22	Atkins 2:12 7:17
			approaches 89:4 121:9 126:20	

12:7,8	background's 11:16	benefit 42:5 123:3 123:14	102:6 107:6	cans 97:19
Attendees 4:16	balance 10:4	benefits 123:1	briefly 6:11	capabilities 28:10
attention 30:15	ball 51:2 123:14	best 127:18	bring 24:5 70:15	36:7 79:14,15
39:1 70:15 93:13	band 31:12,21	better 48:19 52:14	73:16,20 94:5	80:6
93:17 121:20	32:11 42:12 46:7	84:5 101:12	116:16 128:12	capability 36:9,10
attitude 53:22	61:19 89:1 99:22	103:12 117:8	bringing 7:2	82:19
attribution 115:2	100:4 108:3	beyond 55:20 64:8	broad 63:12 68:15	capacity 133:5
auction 46:6,6	112:15 115:13	68:11 77:6 84:2	Broadcasters 18:6	care 108:11
52:18 98:21 99:10	119:11 120:10,18	Bi-Directional 86:6	broaden 115:22	career 11:15 12:14
99:11 111:8 120:9	121:10,15,16	big 23:15 36:19	broader 116:12	16:10 19:12 31:8
auctioned 99:7	band-by-band	77:1 88:4 105:22	broadly 82:12	133:17 134:21
111:19 112:15	101:4	biggest 54:1	broadsides 127:19	carefully 91:14
auctions 99:1,3	band-specific 99:8	bit 8:15 12:13 24:9	brought 30:14	Carl 2:3 15:18
100:5	bands 3:20 43:14	30:12 31:18 43:20	Bruce 9:13 10:14	carriers 88:9
Audrey 1:17 19:7	43:15,17 46:14	45:4 47:18 55:4	116:17,19 117:20	carries 49:14
75:15	63:6,7,17 83:3	60:21 61:5,10	117:21 129:10,11	carrying 116:2
August 28:6	86:8 89:8 90:20	73:5 84:5 89:10	Bryan 2:7 12:18	case 33:2 56:16
authority 74:12	96:2,6 98:21 99:7	95:15 97:16	13:6 20:18 23:15	64:15 71:18 72:1
77:10 79:7 102:4	99:7,9,16 107:4	105:13 107:16	26:8 35:7 36:22	72:21 89:19 98:16
102:11,15 104:11	108:22 109:1,7	115:10 123:9	109:10,12 111:3	101:5 122:19
auto 123:4	112:19 121:6	124:5 125:13	112:22 129:6	categories 101:8
available 72:14	124:1 126:17,19	bits 35:22 83:11	Budget 113:22	cats 133:6 134:8
73:7 79:18 88:15	bandwidth 107:11	blood 27:9 98:12	bug 22:5	caused 32:15
111:17	Barker 12:19	board 127:16	build 84:17	causer 110:6,10
aviation 19:14,15	barrier 55:21	boat 54:14	bullets 103:17	causers 109:19
avoided 121:12	based 64:3,6 66:22	Bob 16:22 20:21	burbles 34:8	Center 1:13 17:18
awaiting 45:9	80:8 88:14 105:19	49:1	Bureau 28:9,20	21:5
AWS1 45:22 99:1	115:5	body 12:1 83:9	business 5:13 11:10	central 31:16 34:16
AWS3 61:16 96:3	baseline 27:13	Boeing 19:9 76:20	49:11 64:10 97:3	cents 55:8
99:3 113:4 118:16	56:20	76:21	buying 63:1	century 21:9
126:1 131:6	basically 56:7 65:6	bogged 89:3		certain 79:8 92:6
	120:15	boil 29:15	C	98:21 108:9
B	basis 46:10 78:18	book 91:12	C-O-N-T-E-N-T-S	certainly 9:13,15
back 9:19 10:10	101:4	boom 106:5,6	3:1	33:12 39:5 51:14
12:22 14:1,20	bazillion 37:8	booming 106:6	cadence 29:13	61:18 63:8 64:8
19:5 20:18 23:3	beginning 12:20	boss 110:13	Calabrese 1:18 4:6	83:8 86:13,14
25:2,18 29:12	13:6 20:18 57:13	bottom 56:6 61:6	18:22,22 97:11,11	87:9 90:11 98:13
54:10 58:1 61:1	63:1 123:22	106:13	104:4,7,14 107:18	112:22 115:6
62:7,11 81:22	beginnings 94:1	Boulder 21:2,5	107:19 131:2,3,20	118:16 119:9
87:15 89:6,17	behalf 86:10	Brattle 16:13	call 3:6 10:14 22:19	120:11 121:4
91:11 96:7 98:22	134:15	breakthroughs	35:17 70:19 90:1	122:21 125:7
100:10 103:7,10	behave 75:5	51:19	91:3 101:22	126:1,9 127:13
104:16 112:3	believe 18:8 38:6	brief 27:20 38:17	108:10 130:14	134:19
114:16 123:17	42:11 44:1,17	38:18,18,19,19,19	called 75:16	cetera 88:12
127:2	61:18 86:22 94:19	38:21 39:11 61:5	calling 20:19 38:13	chair 48:9 128:1
back-up 116:21	125:22 126:4	briefing 77:16	97:13	chaired 25:13 49:2
background 10:19			calls 101:2 109:14	86:12
12:13 98:17			113:15	

chairs 3:11 26:21 116:7 118:3 132:21	78:17	129:8,13,17,22 130:19 131:1,21 132:7,12,16,18,19 133:1,11,12 134:7 134:10,14 135:21 136:2	29:12 35:1 49:7 57:7 59:10 85:16 94:18 122:4	company 10:20 14:7 16:19 19:9
challenge 83:14 84:3 115:7	classified 70:8 72:8 72:10 74:12 76:10 76:18,19 77:5,8 77:17,21 78:4,6 82:9 83:2 85:1	co-chaired 12:21 49:3	comment 4:15 9:9 33:17 34:10 48:22 83:13 107:1 130:5 132:1,2,3	completely 92:22
challenges 62:17	classifying 79:9	co-chairing 69:4	comments 3:4,9 9:17 20:6,8 23:9 23:12 34:11 37:17 38:10 46:21 60:5 60:5 74:7,9 80:12 86:4,20 115:17 129:7 130:1 131:22 132:5	complex 36:1
challenging 68:4 68:17	clear 98:20 113:6	co-chairs 1:14 3:4 4:18 5:14,16 6:2,7 10:10 25:9 90:21 116:8	Commerce 1:1,5 2:10	compliance 19:10
chance 22:21 55:13 116:22 117:6,8	cleared 81:17	code 39:21 120:2	commercial 10:7 17:10 32:10 43:1 43:3 44:7,15 46:3 53:7 87:22 88:5 92:5 99:17 123:6 126:14	complicated 121:15
change 53:22 54:1	clearly 22:22 31:20 32:4 96:7	codified 84:8	Commission 41:15 41:16 81:15 120:7 120:15	component 65:2
changes 108:22 109:6 112:11,11 112:13,17 113:3	clients 17:9,11	collaboration 4:12 9:8 51:13 124:17 125:1	Commission's 45:9	components 85:10
changing 110:7	close 23:1 57:13 66:4 92:16,22 136:3	collaborations 125:21	Commissioner 110:14	Comsearch 11:9,12
channel 66:5	closed 129:4	collaborative 39:15 131:13	commit 94:18	Comsearch's 11:11
channeling 110:13 122:13	closing 4:18 132:20	collaboratively 130:11	committee 1:5,12 5:18 6:8 10:18 20:11 26:22 28:19 86:11 90:13 91:1 92:10,16 94:15 105:16 134:15 135:10,12	con 124:15
characteristics 65:10	clutter 56:17 57:10 58:16,19,19,20	collect 102:16 103:22	committees 98:8	conceivably 108:6
Charla 2:3 13:19	co-chair 1:16,17 3:2,5,5,8,10,14,17 3:19 4:19,20 5:3,7 10:12 11:8 12:1 20:5,12,20 21:15 22:7 23:11 26:4,7 29:5,20 33:16 34:1 35:6 37:16 38:9,16 41:4 46:15,19 48:21 49:22 52:4 53:10 55:10 57:3 58:4 60:3,8 62:6 67:15 68:2,20 69:3,9,11 69:12,13,15,16,18 69:21 70:2 78:9 79:11 80:11 83:12 85:21 86:1 93:2,4 94:10,16,21 95:2 97:4,7,9 103:14 103:15,18,19,21 104:6,13,19 106:20 109:10 110:20 112:7 113:10 115:16,20 117:18 118:10 124:14 128:1,4,7 128:10,19 129:1,6	collected 103:17	communities 10:8 15:17 32:18 122:12	concentrated 92:6
chart 26:13	clutter 56:17 57:10 58:16,19,19,20	collegial 49:19 50:2	common 90:9	concept 81:4 82:4 96:1 100:19,20 122:17
charter 26:15,19 97:16	co-chair 1:16,17 3:2,5,5,8,10,14,17 3:19 4:19,20 5:3,7 10:12 11:8 12:1 20:5,12,20 21:15 22:7 23:11 26:4,7 29:5,20 33:16 34:1 35:6 37:16 38:9,16 41:4 46:15,19 48:21 49:22 52:4 53:10 55:10 57:3 58:4 60:3,8 62:6 67:15 68:2,20 69:3,9,11 69:12,13,15,16,18 69:21 70:2 78:9 79:11 80:11 83:12 85:21 86:1 93:2,4 94:10,16,21 95:2 97:4,7,9 103:14 103:15,18,19,21 104:6,13,19 106:20 109:10 110:20 112:7 113:10 115:16,20 117:18 118:10 124:14 128:1,4,7 128:10,19 129:1,6	Colorado 21:2	communication 46:2	concern 110:8 122:15
chartered 91:2	clutter 56:17 57:10 58:16,19,19,20	combination 129:3	Communications 2:10	concerned 82:17
Chartier 1:18 18:18,18	clutter 56:17 57:10 58:16,19,19,20	combinations 89:2	community 10:8 15:17 32:18 122:12	conclude 96:20
charts 26:17	clutter 56:17 57:10 58:16,19,19,20	combine 82:15		conclusions 40:19
check 47:2 95:5	clutter 56:17 57:10 58:16,19,19,20	come 8:4,13 25:2 28:9 30:20 33:9 35:17 41:10 49:11 51:6 54:20 63:20 64:12,12,17 66:10 73:14 77:1 99:2 100:3 103:10 104:8 106:16 108:15 119:22 123:15 127:17 135:13		concrete 103:5
checking 84:11	clutter 56:17 57:10 58:16,19,19,20	comes 41:18 85:14 99:11 117:15 130:6		confer 102:18
Chicago 6:20	clutter 56:17 57:10 58:16,19,19,20	coming 6:18 21:9		conference 1:13 109:14
Chief 16:6	clutter 56:17 57:10 58:16,19,19,20			confidential 71:12 92:1
choose 43:14	clutter 56:17 57:10 58:16,19,19,20			conflict 122:2
chose 71:20	clutter 56:17 57:10 58:16,19,19,20			Congress 104:16 105:1,10
circulate 28:21	clutter 56:17 57:10 58:16,19,19,20			Congressional 113:22
circulates 9:13	clutter 56:17 57:10 58:16,19,19,20			cons 103:6
Cisco 20:16	clutter 56:17 57:10 58:16,19,19,20			consensus 88:19 89:12 90:14 93:22 94:2,19
city 8:21 9:11	clutter 56:17 57:10 58:16,19,19,20			conservative 51:6 52:16
claim 13:11	clutter 56:17 57:10 58:16,19,19,20			consider 9:16 85:18,20 93:10 95:19 102:9 125:12,17,19
clarify 30:11 94:11 128:10 131:7	clutter 56:17 57:10 58:16,19,19,20			consideration 67:11 68:16
class 75:20	clutter 56:17 57:10 58:16,19,19,20			
classification 74:19 75:19 76:2 79:4,6 80:18 81:22 82:8 83:16	clutter 56:17 57:10 58:16,19,19,20			
classifications	clutter 56:17 57:10 58:16,19,19,20			

considerations 68:4 102:9	120:3,5 127:12	crying 106:3	database-enabled 34:5	35:6,8
considered 42:9 68:14	copy 117:20 118:8	cryptography 76:22	databases 3:18 69:2,6 76:19 86:4	dense 27:16
Consistent 109:16	core 34:16	CSEA 98:22 99:4 107:1 111:7 114:11	David 1:20 18:5	Department 1:1 54:8 79:1
constantly 50:3	corporate 105:15	CSMAC 3:7,11,11 5:4 6:14 8:5 11:2 11:16 12:20 13:6 14:21 17:4 18:7 19:5,18 20:14,17 20:21 23:19 24:14 28:21 39:4 50:14 50:18 51:16 52:8 57:7 73:6 80:2 98:11 115:22 125:11,19 126:6 128:12 131:4,11 131:16 133:9,19 134:1	day 22:6 34:2 124:12	depending 100:7
constraints 91:10 102:19	corporation 13:4	CSMACs 5:15	days 114:10 134:1	depends 87:16 94:15
consultant 17:8	correct 26:1 69:9 111:7 116:19	current 28:9,10 30:22 31:5 38:2 91:1 102:7 107:2	DBs 50:8	deployments 61:18
consulting 23:16	cost 3:22 96:11,13 97:7,9,12 101:8 109:19 110:6,10 112:2 115:1 118:19	currently 11:1 14:2 15:3 17:15 21:1 28:14 87:22	deal 33:2,10 56:3 56:17,18 65:22 71:11 82:8 121:10 124:12	deputies 7:17
contact 116:6	cost-benefit 110:19		dealing 18:8 31:4 63:17 66:11 77:4 114:12	deputy 2:12 7:19 12:8
content 39:9	cost-causers 37:11		deals 76:18 105:21	derive 84:18
context 28:12 29:6 30:22 33:11,21 34:5 52:21 105:14 106:18	costs 99:6,9,21 100:17 102:21,21 108:8,15 113:2,5 113:9		dealt 28:14 31:6 56:4	describe 71:7
contexts 34:17	Council 8:17		debate 116:15 117:1,4	described 95:20
continue 10:4 30:1 45:2 46:1 49:12 49:13 61:7,20 85:4 124:2 125:19 131:16	country 88:8 92:7 106:5		December 71:4,16	describes 41:16
continued 21:12	couple 8:19 9:21 11:14 31:19 39:3 45:22 74:2,9 100:10 107:21 117:12 122:9 124:22 128:8 133:18		decided 23:17 71:16 91:7	designated 74:12 77:9
continues 16:1 37:19 44:21	course 10:6 24:1 25:4,22 64:16 106:8 120:7 122:1		decision 52:17 96:4 101:20	designing 75:10
continuing 17:6 26:20	cover 65:12,15 108:7 132:13		decisions 64:3,6 110:11 114:15	desirable 91:4
contractor 75:14	covered 76:1 87:1 87:12 101:9 132:14,16		deck 26:13	detail 42:4 73:16 87:1,12 100:22 122:21
contractors 75:15	covering 29:4		declassify 79:7	detailed 57:19 82:14
contributions 8:8 14:22	create 34:17,18 119:11 124:5		decrease 119:4	determines 79:6
control 32:1 66:2 74:19	created 71:5		deep 27:21 36:2	determining 56:6
conventionally 100:1	creates 99:12		Defense 54:8	develop 16:20 31:1 42:6,14 56:14 59:16,17 80:7 82:3 97:21 115:14 124:1 127:2 128:11,17
conventions 79:15	creative 110:3		defer 10:15 132:8	developed 37:4 79:19 82:18
conversation 37:2 37:13 78:22 86:17 90:6 127:5	critical 27:13 36:5 98:4		define 39:21 58:14 115:14	developing 28:16 42:11 49:16 107:3 115:11
Cool 95:2	Crosby 21:16 25:14 60:14		defines 75:18	development 11:10 15:4,7 122:18 124:3
Cooper 1:19 18:13 18:13	Crosby's 69:4		definitely 80:9	device 133:6
cooperative 16:7 52:22			definitions 39:18	devices 13:16 32:10 32:11 67:3 98:1 111:22
coordination 44:1 44:3,9 49:4,16 56:6 119:1,5,7,17			delay 123:2	DFS 121:13
			delighted 14:20	DHS 78:4
			deliver 127:7	diagram 42:7 43:7
			deliverable 38:8	
			deliverables 38:8	
			demonstrating 64:13	
			Dennis 2:5 14:15	

D

D.C 1:13 15:12

56:9

DAA 76:21**daily** 78:18**Dale** 1:21 12:21

13:6 20:22 21:15

25:14,20,22 27:2

27:18 34:14 37:22

38:12

data 35:13,20,21

35:21 42:8,15,15

51:20 53:16 81:18

82:2,5 83:2,17

84:14

database 70:9 71:7

72:2,14 77:14

78:15 79:16 82:18

83:3 85:15 97:17

105:7

dialogue 72:19,20 74:15 94:6 126:18	distances 56:7	dozen 47:12	100:13 114:21	33:6 34:18 36:9
different 25:8 31:2 52:21 58:20 63:2 66:1 67:21 68:18 95:22 101:17 120:3 125:13	distinction 18:14	DR 14:12 16:12,18 16:22 17:7,13 20:15 41:2 49:1 62:3	effort 35:5 39:15 40:10 42:14 43:3 44:6 45:3,21 47:19 118:22 120:11 124:18 126:1 135:1,14	36:11 38:2 56:12 81:10
differently 78:13 78:19	distinguish 39:21 39:22	draft 42:2 91:17 93:6 114:11 127:7	efforts 28:18 44:3	environmental 14:7
difficult 36:3 68:9 126:8	distributed 93:7	drafted 49:4	either 99:16 110:4 122:19	envision 83:10
digital 15:11	distributing 63:4	dramatic 109:13 111:1,5	electromagnetic 14:6	equipment 63:2 101:12 107:13 109:3,6 110:4 112:12,14
dimension 35:14	distribution 129:12	draw 93:13,17	elements 71:8	equities 61:20
direct 19:1 96:18	dives 27:21	drew 93:8	email 70:17 129:12	especially 61:15 130:4
directed 64:20 68:13	divorced 37:6	drive 74:1	emeritus 39:6	essentially 87:16 121:12
direction 54:15	document 27:22 30:15 41:3 45:14 77:1 108:19	driven 70:9	emphasis 55:17	established 101:4
directly 100:21	documentation 40:18 47:3 62:9	driver's 8:11	emphasize 34:13	establishing 115:9
Director 18:19 19:8	documents 25:2 27:14,17 40:21 71:5,10,13 73:22 79:20	DSRC 122:3,13	emphasizing 34:15	estimates 118:19
disagreement 62:20	DoD 16:21 17:9 42:10,15 47:6 50:4 53:5 71:22 73:3,10,15 74:10 74:10,13,15,16,22 75:13,19 76:6,7,8 77:6,18 78:2,3 80:14,21 82:4 84:6 85:1 102:18 108:18 118:21 119:9,18 120:12	dubious 18:14	enabling 110:18	estimation 65:8
disclosure 53:15	doing 13:15,20 15:15 20:16 21:10 27:21 29:15 50:5 50:17 62:22 64:10 65:2 109:13 114:6 114:7 119:12 123:10 124:11 135:19	ducting 56:4	enactment 109:14	et 88:12
discovered 13:12	doings 19:13	due 117:8	encourage 9:15 96:21	event 7:1
discuss 117:5 120:12	Dombrowsky 1:19 19:16,17 21:21 38:17 45:16,18,19 47:10,11 53:11,12 53:13	dump 54:10	encrypted 35:21	events 40:16 45:6
discussed 42:10 89:21 95:13 122:8 129:18	Donovan 1:20 18:5 18:5	duration 96:10	endorsed 100:20	everybody 9:14 18:2 21:6 49:7,11 51:5 54:17,19 118:20 135:20
discussing 95:22	door 22:2	<hr/> E <hr/>	energy 86:14	everybody's 46:4 56:19
discussion 27:8 44:8 51:12 57:19 59:6 73:15,21 78:8 88:14 89:9 93:19 96:8 98:12 103:8 109:17 117:8	doubt 61:3	earlier 33:19 98:6 109:17 118:21 124:10	enforcement 3:12 25:12,13 28:8,20 29:19 30:17,22 31:5 33:15,20 34:6 35:16 36:7 37:2,18 38:3 66:12	ex-Marine 13:15
discussions 45:8 46:11 47:5 51:19 52:19 74:6 94:1 98:6 121:17 122:20,22		early 9:7	enforces 31:15 32:7	ex-OSM 132:10
disposition 113:2		easier 55:6	engage 71:17 72:1 72:18,21 79:1	exactly 42:19 75:19 102:8
dissertation 33:14		easily 49:17	engaged 73:4	excelled 6:1
distance 55:21 119:1		east 30:18	Engineering 19:17	exception 21:8
		easy 51:4 65:21 88:18 106:7 132:8 135:6	enjoyable 11:19,20	exchange 42:8,15 80:4
		echo 36:14 50:1 53:13	ensure 96:15	exchanged 52:13
		economic 17:16 110:11	Enterprises 17:16	excited 11:22 12:22
		Economics 17:19	entertain 128:5	exciting 9:21
		edges 95:15	entire 16:10 19:12 74:20	exclusion 40:1 83:19 120:16 121:1
		education 79:21	entity 36:18	exercises 89:3
		EE 11:16	entrance 121:22	existing 5:5 30:7
		effect 59:7	environment 9:4 28:13 31:5 32:9	
		effective 47:18		
		effectively 53:3		
		effects 14:7		
		efficiency 18:15 65:18 99:18		

112:4 115:4 116:2 122:13 exists 106:18 expand 72:22 93:19 expanded 8:1 89:20 100:12 113:7 122:2 expansive 107:7,16 expect 37:19 46:13 67:4 81:11 133:20 expectation 117:2 expected 56:20 87:14 expecting 48:20 experience 15:5 45:22 experts 84:13 101:18 exploding 10:6 explore 8:21 64:7 73:16 explored 92:9 extend 112:21 extensive 19:13 87:4 extent 11:12 59:20 63:6 84:21 98:11 107:8 112:10 extra 113:6 eying 123:6	56:16 62:21 64:9 98:2 99:12 107:21 factor 65:17 factors 68:13 faculty 14:13 21:1 failed 29:6 fair 113:2 fairly 67:7 fame 13:11 familiar 7:13 9:20 26:10 far 128:2 fast 56:1 120:16 favor 100:19 FCC 9:8 18:4 19:21 32:5 35:3 36:16 38:3 44:16 74:3 82:20 89:13,18 91:18 96:1,14,20 102:10,11 104:17 105:14 119:15 120:12 FCC's 28:8 36:6 feared 32:19 feasibility 76:16 feasible 101:7 federal 3:16,20 10:5 17:21 32:12 44:7 54:9 63:7 64:22 65:3 74:20 76:8 77:13,18 78:5 79:2 82:21 86:7 87:14,21 88:4 89:2 91:10 92:3 96:2,17,22 97:20 108:8 federal/non-fede... 28:12 34:19 fee 104:2 feed 35:3 feedback 81:20 103:8 128:13,18 131:10 feel 10:19 22:5 47:7 51:18 59:10 66:6 fees 105:19 110:4,5 111:21	Feld 1:20 15:9,9 46:17,20 130:2,3 fellow 17:18 21:4 felt 23:19 24:3 65:4 fiber 11:5 field 19:11 28:15 fighting 56:22 figure 22:18 23:3 33:1 95:15 figuring 73:6 filed 24:17 files 124:6 filing 9:16 fill 39:20 finally 22:21 56:10 find 84:4 94:7 105:17 110:5 finish 23:21 firing 127:19 firm 95:15 firning 96:5 first 5:9,13 12:21 22:14 23:16 25:11 28:17 39:2 42:6 50:19 91:3 94:15 95:18 103:15 120:14,17,18 121:7,16 125:10 126:6 131:8 fits 42:19 five 27:6 29:3 50:14 fixed 66:2 67:22 flag 62:2 Flatirons 21:5 flesh 45:12,15 103:5 fleshing 43:19 flexible 50:4 floor 32:22 59:17 flow 71:9 focus 18:20 24:15 29:16 30:14 35:15 55:5 63:5 71:19 109:18 110:10,16 112:1 focused 15:6 19:19 29:10 48:17 54:17	54:19 55:4 57:20 63:14 70:4 85:22 126:3 133:21 focusing 30:12 47:18 49:20 folks 8:16 21:21,22 23:2 30:7,8 47:14 54:2,9,14 64:8 70:15 82:20 98:18 118:22 122:15 follow 91:5 followup 67:17 fondly 134:1 fora 44:11 fore 88:21 foreign 81:9 forever 18:15 forget 41:5 forgot 118:6 form 119:15 124:6 format 24:14 formation 10:18 formed 73:6 former 110:13 forth 76:4 78:7 114:16 fortunately 8:6 forums 80:3 forward 6:5 8:10 12:11 14:21 15:8 17:5 21:13 27:15 35:1 37:5 42:21 46:6 49:8,10,11 49:15 51:3 52:18 55:20 56:12 58:10 90:4,18 92:19 105:18 110:12 117:3 118:17 120:9 123:3,14 125:6 132:14,15 found 74:10 82:22 118:18 123:21 foundation 4:7 19:2 27:14 founded 17:18 founder 14:14 FOUO 83:17	four 50:14 63:9 86:19 87:10 95:18 fourth 88:22 frame 45:12 framework 128:17 131:9 frameworks 122:9 122:10 frankly 55:4 105:21 106:3 free 22:5 106:9,10 108:11 109:8 Freedom 3:21 13:8 frequencies 78:7 119:21 frequency 19:8 67:20 68:14 friends 127:20 front 41:6 48:7 fruitful 89:9 fruition 122:4 full 28:5,21 53:15 90:14 fully 79:21 fun 11:7,21 131:2 function 121:3 functional 120:4 fund 98:19 99:5 100:12,13,14 101:3,4,7,12 102:7 114:22 115:4,4,11 fundamental 49:9 funded 105:19 funding 37:12 funnier 69:20 Furchtgott-Roth 1:21 17:13,14,16 110:14 further 28:22 64:7 91:4 92:11 122:17 future 19:1 32:19 63:18 88:12 90:18 119:13 125:9
<hr/> F <hr/>				<hr/> G <hr/>
face 26:10 83:15 face-to-faces 61:11 faces 5:5,5 84:3 facilitate 42:14 72:19 89:20 112:12,18 116:15 facilitated 57:18 98:19 facilitates 23:2 facilitating 99:10 99:21 facilities 21:20 facing 10:3 fact 5:20 30:14 32:14 40:10 55:22				G G 16:12 gap 79:13

Gary 39:6	108:1 114:5	58:10 63:6,17,18	grant 83:5	grow 45:20
gather 63:4	120:10 121:13	63:19 65:21 66:3	grappling 29:19	growing 10:5
gavel 134:5,13	gigs 121:6	66:10,18 67:11	great 22:7 23:15	guess 67:5 78:13
general 3:15 31:6	gist 44:12	68:4,7,15,17 73:7	27:9 37:3,8,14	90:10 91:20 94:14
33:14 60:9 70:22	GIULIA 2:1	74:3,15 77:4,5	41:22 87:12 92:17	97:13 106:12,22
77:20 101:3 108:8	give 5:11 10:18	78:2 80:2 81:11	125:3 133:22	108:18
114:4	24:7 47:3 80:16	81:13,16,17 85:3	greater 82:5	guest 20:6
generally 58:2	102:3 120:1 127:1	85:19 86:1 90:3	102:13 109:8	Guests/Visitors 3:8
101:5 127:19	130:17 134:11	91:11,21 96:5	greatly 23:2	guidance 67:17
generate 28:19	given 7:10 21:6	103:4 105:1,10,19	Greg 23:15 26:8	90:19
geography 88:8	43:3 61:15	106:1,17 107:12	grew 99:13	guide 81:22
getting 6:22 8:6	gives 24:21 82:4	110:10,12,16	gridlock 106:18	guides 75:20 76:2
49:17 83:6 115:5	108:21	111:2,20 112:5	gritty 83:7	80:18 82:8
Gibson 1:14,17 3:5	giving 82:1	114:6 115:4,17	group 9:22 15:12	Guilia 16:12
3:8,10,14,17 4:20	glad 21:11 92:11	117:3,4,12 118:7	16:13 17:5,6,22	guy 11:12
5:15 11:8,9 20:5	glean 95:6	118:9 119:13	21:14 25:12,13,22	guy's 13:17
20:12,20 21:15	global 20:16	121:17 123:16	26:16 27:7 28:19	guys 69:19,20
22:7 26:4,7 29:20	go 5:8 6:5 8:22 9:10	124:2 127:17,22	29:19 36:13,18	77:17
29:21 33:16 34:1	12:2,2 15:14 24:4	132:5,8,13,15	39:13 41:22 45:21	
34:4 35:6 37:16	24:16 25:7 30:17	135:6,17	47:17 48:9 49:2,3	H
37:20 38:9,16	32:14 43:16 49:8	Gomez 2:12 20:7,9	49:7 50:14,22	H 1:14,17 2:4
41:4 46:15,19	52:18 54:9,20	good 16:4 21:18	52:1,20 54:16	half 12:14,15 17:2
48:21 49:22 50:1	55:8,10 56:21	27:18 30:16 35:4	57:11,13,18 60:4	21:9 47:13,14
52:4 53:10 55:10	58:1 59:14 62:7	37:10 38:10 44:7	60:19 62:17 69:5	half's 58:17
57:3 58:4 60:3,8	62:11 63:22 71:15	47:16,20,21 48:5	69:5,7 70:13,17	hallway 22:3
60:14 62:6 67:15	72:5 77:20 80:17	48:12 50:15 52:13	70:19 71:3,6,15	hand 81:2,21 82:15
68:2,20,21 69:1,9	81:22 83:7,10	53:4,5 54:12 57:5	73:3,20 74:7 75:8	handle 30:3 36:9
69:10,12,15,18,21	84:21 85:7 89:17	59:9 60:2 64:6	79:19 80:9 81:17	36:10 132:9
78:9 80:11 83:12	101:10 104:15	71:4 87:1 95:3	83:15 84:3 86:3	handled 76:12 82:6
83:13 86:1 93:2	106:12 126:17	97:5 107:19 118:4	92:14 98:14	handsets 56:8
94:10,11,16,21	133:21	119:2	117:16 118:21	hanging 123:11
95:2 97:4,9	go-round 99:15	Google 11:2,3	125:10,16,18	happen 41:12
103:14,18,19,20	goal 73:19 116:17	gotten 29:14 47:17	126:2,22 127:7	52:17 75:1 80:5
103:21,21 104:6	goals 115:22	60:20 122:20	129:14 130:8	happened 29:7
104:13,19 106:20	goes 7:10 85:7	123:18 134:20	131:6 134:21	happening 6:12
109:10 110:20	going 7:1 9:5,8	government 12:15	135:15	32:16
112:7 113:10	10:11,15 23:13	13:10 14:9 17:9	group's 55:16	happens 44:9,9
115:16 117:18,20	24:6 25:7,16	17:15 46:3 47:14	groups 23:18,22	happier 5:19
124:14 128:4,7,8	26:16 27:15 29:22	70:8 74:21 75:4	24:3,5,7,19 25:8	happy 12:17 19:5
128:10,19 129:1,6	30:18 31:14,20	76:11,13 77:18	29:9 30:3 35:1	33:12 48:13 59:16
129:22 130:19	32:4,21 33:1,2	82:11 125:1	36:20 50:18 51:17	harbor 72:5,6,9,12
131:1,21 132:7,16	34:1 36:11 37:5	127:12,16	52:8 53:18 54:1	hard 54:19,22
132:19 133:1,11	37:10 38:13 40:11	government/indu...	54:15 55:3 57:7	harder 115:12
134:7,10 135:21	41:10 42:20 43:4	125:20	60:22 61:14 81:3	hardware 63:1
gigahertz 46:7 63:9	44:17 45:1,2,7	graduate 17:4	116:13 117:12	Harold 1:20,21
71:20 74:4 82:19	46:6,8,9 49:15	grandchildren	126:7,16 129:20	15:9 17:13 46:16
100:4 107:11	54:22 56:13,20,21	32:21	130:9,11	46:20 130:1
				Hatfield 1:21 12:21

20:22 21:1 25:14	85:5	120:13,21,22	initial 23:18 52:9 66:21 77:15	interpreted 78:20
head 14:5 17:15,21 34:9 113:13	hopefully 24:5 45:3 49:5 55:15 57:4 57:22 117:14	improvement 59:20	inordinate 18:21	intimately 48:4
headed 68:19	hoppers 68:14	improvements 107:13	input 64:8 117:9	introduce 5:9,13 6:10 7:14 10:17
heading 54:3 60:11 119:7	hopping 67:21	improving 107:10	inquiry 102:1	introduced 57:17
healthy 117:1	host 20:2,10 82:10	in-person 28:5	instance 31:9 32:6 55:22 66:12 81:15 85:13 114:4 126:15	Introductions 3:4
hear 19:14 83:9	hosting 22:8	inaudible 23:4	instances 48:11	invite 24:1 27:2 28:7 92:19
heard 116:1	Hudson 17:17	incentive 99:16 100:9	institute 14:17 17:17 19:3,4	involve 43:1,2 128:20 131:4
heartening 50:3	huge 30:17	incentives 99:14	instrument 134:2	involved 18:3 21:7 21:12 48:4 101:14 102:12 116:4
heartwarming 50:13	I	include 59:7 101:2 102:20	insulting 22:9	IRAC 134:4
help 10:1 27:10 59:22 82:20 107:14 109:8 135:20	idea 8:21 9:11 43:9 65:6 66:22 87:20 127:16	included 16:1 70:8	Intel 18:20	ISO 74:19 77:19
helped 39:6 72:19 118:22	ideally 102:17	includes 13:4 18:1	intend 81:6	issue 30:17 31:16 35:10 36:15 48:3 88:2,4,20 89:14 90:16 93:18 114:7 121:13 124:22 125:14 126:3 130:15
helpful 48:16 66:8 85:2 113:21 116:10 120:7	ideas 37:3,9,14 95:22 116:16	including 18:4 19:20 77:18 83:17 96:16 133:9	intensity 65:19	issued 8:18
helping 129:9	identified 58:8 101:2	incorporated 59:2	intent 127:5	issues 7:12 10:3 11:6 14:3 16:2,16 17:22 18:2,9,20 19:19 40:12 50:9 51:1 55:5,7 56:17 57:9 72:3,4,16 83:7 84:12 89:12 91:6 101:1 119:6
herd 133:6 134:8	identify 33:13 58:18 125:5	independent 17:8	intention 130:13,16	issuing 49:5
Hi 14:4 15:2 16:4 19:6,16 20:15	identifying 121:8	indicated 12:7 36:4	interact 84:5,22	it'd 111:16
hiatus 73:5 98:8	IEEE 122:7	indication 120:2	interacts 43:16	it'll 9:6
high 12:14 100:10 113:5	IIT 35:9	individual 77:9 109:19	Interdisciplinary 21:3	IT-friendly 124:5
highlight 28:4 33:8	Illinois 14:17,18	industrial 13:15 75:17	interest 15:17 43:14	itching 30:8,10
highlighting 89:8	imagine 100:3	industry 12:15 14:9 15:6,20,21 16:11 32:2 35:2 47:6 76:18 123:2 123:4 125:1 126:14,15 127:16	interested 60:14 111:21 116:5 120:1 129:9	item 5:10,13 10:13
hinder 96:15	immediate 88:16 94:2 124:4	Industry/Govern... 4:12 124:16	interesting 37:5 51:15 72:18 74:11 87:7 133:21	items 28:22
historically 35:16	immense 7:9	inform 96:9	interface 43:5 79:3	iteration 5:17
history 14:8	impact 53:6 85:12 96:11 97:2 112:18 122:13	information 1:2 2:11 24:12 52:13 63:4 71:8,12 72:2 72:14 74:13,20 75:12 76:3,10,18 77:8,17,21,22 78:4,6 79:12,13 79:17 80:4,8,16 80:19 82:9,11 83:11 102:17 103:22 119:20 120:21 123:22	interference 32:13 32:14 121:9 122:10	iterative 54:11,12
hit 29:16	implement 53:2 97:21	Industry/Govern... 4:12 124:16	interfering 56:8	ITU 18:21 51:8 56:3
hold 44:14	implementation 89:22	inform 96:9	internal 73:10 95:8 127:12	J
holders 84:22	implementing 9:10	information 1:2 2:11 24:12 52:13 63:4 71:8,12 72:2 72:14 74:13,20 75:12 76:3,10,18 77:8,17,21,22 78:4,6 79:12,13 79:17 80:4,8,16 80:19 82:9,11 83:11 102:17 103:22 119:20 120:21 123:22	internally 127:6	Janice 2:2 3:21 13:7,19,22 86:10 93:4 95:5 103:16 104:19 109:16
holding 81:17	importance 36:12 108:20 125:8	Industry/Govern... 4:12 124:16	international 18:20 114:6 121:17	
hole 7:10	important 10:3 26:19 34:20 35:10 35:15 37:2 39:20 102:9 106:14 109:18 110:15 126:5 129:18	inform 96:9	internationally 121:20	
home 9:16 32:20	improve 99:17 107:14 119:1	inform 96:9	Internet 17:19	
homework 27:22		inform 96:9	interpret 107:15	
honest 76:17		inform 96:9	interpretation 112:10,20 113:17	
honored 12:1 18:11		inform 96:9		
hope 64:17 103:4 116:11 123:13,21 127:6		inform 96:9		
hopeful 39:19 41:20 45:11 59:10		inform 96:9		

133:1,14	62:14,15 68:2	129:15 135:2	left 13:17 134:5	95:15 97:16 99:15
Janice's 110:8	72:19 80:12 90:5	Knowledge 15:11	lefthand 22:3	102:14 103:12
112:3	95:3 113:10,11	known 26:11 86:7	legal 102:11,15	105:12 107:16
jeez 13:16	115:17 124:18	133:17	legislation 112:4	115:10 123:9
Jeff 14:12	133:17	Kolodzy 1:22 17:7	114:11	124:5 125:13
JEFFREY 2:4	Karl's 44:17	17:7	lessons 51:16	live 9:4 78:18
Jen 29:5	118:11 133:4	Kubik 1:22 16:22	let's 10:11 12:2	lived 50:13
Jennifer 2:7 3:13	keep 35:15 54:22	16:22 41:2 49:1,1	54:4 69:1	local 66:13
13:1 25:15 26:4	61:13 117:22	Kurt 2:5 16:5	letters 35:17	localized 66:9
26:12 34:11,12	118:8 134:5		level 12:14 67:12	location 67:3,8
37:21 45:14 67:15	135:16	L	76:4 83:16 100:11	89:1
67:16 75:16 78:10	keeps 118:4	L 1:17,20 2:4	130:15	locations 119:21
78:11 84:7 86:11	key 48:8	laboratory 9:3	liberal 113:17	Lockheed 3:13
86:18 90:5 92:10	kidding 113:17	lack 65:19	license 87:6	13:2
93:2,3 94:18	134:12	laid 81:13	licensed 108:2	logistics 21:19
95:13 109:11	kind 8:10 11:17	language 24:20	110:1,2	22:11
110:21,22 133:3	22:10 24:11,12	107:2	licensee 88:15	long 13:9 24:16
133:14	28:13,17 29:10,13	large 54:18 89:2	licensees 44:16	34:2 44:6 46:13
Jennifer's 36:15	32:7 33:5,11 34:8	larger 54:16	97:22 115:6	55:21 85:5 104:22
job 23:16	51:16 52:13 56:21	Larry 1:14,16 2:10	licenses 100:6	long-term 14:3
jobs 90:7 124:12	60:19 66:16,19	3:2,3,5,19 4:19	108:4	88:16 96:12
join 24:8 27:3,10	70:13 72:2 73:7	5:10,14 6:3,9	licensing 19:10	longer 39:4 88:10
41:21 60:4 70:16	74:11 78:7 79:17	10:12 11:1,22	light 130:4	look 17:5 31:22
70:22 71:15 98:15	81:9,12,16,19	12:7 22:18 23:5	liked 24:14	32:13 34:6 50:21
joined 135:5	82:11 83:6 84:12	27:17 29:22 69:2	likes 116:17	51:20 52:9 59:15
joining 16:9	93:8 95:13,14	69:22 79:11 85:3	limited 112:14	60:20 62:11 64:21
joint 41:15 89:14	96:5,10 105:12,16	100:18 115:18,19	limits 99:5	65:5 77:11 78:19
96:20 105:14	108:18 113:1,17	115:21 117:19,20	line 56:6 61:6	81:19 88:6 89:17
119:16	120:2 121:5	118:1,4	106:13	90:22 91:22 92:18
JR 1:19 2:4	124:11 125:15	Larrys 118:5	lines 79:8 80:10	95:13 102:4
Julie 7:21	127:11 128:17	late 60:7,9	link 65:13	104:20 105:16
July 1:10 27:4,5	129:3,19 130:10	Laughter 5:6 6:16	linked 124:7	107:9 108:14
28:2	130:17 135:3	7:15 12:6 13:13	links 30:21	113:1,9 114:18
jumbled 35:22	kinds 68:18 76:16	13:18 18:17 20:4	list 39:2,9,18 61:13	124:1 126:11
jump 26:1	104:9	33:22 70:1 92:13	62:12,16 71:11	127:1,9 130:15
June 65:1 124:9	knew 69:12	113:14 132:6	72:22 73:1 86:15	looked 40:9 86:15
justice 26:2	know 6:14,21 9:6	law 1:13 66:12	listed 43:15 70:4,14	87:11,20
	20:2 26:6 30:9	lay 91:2	71:3	looking 8:10 9:12
K	33:1 38:1 41:1	leadership 5:21,22	listen 35:18	12:11 14:21 15:8
K 1:13	42:9 47:4 51:15	7:11 26:3	lists 116:9	21:12 28:7 55:7
Karl 2:11 4:10,13	54:3 66:16 70:6	leading 46:5	little 12:13 13:17	55:16 56:2 63:3
6:13,20 7:1,6 8:10	75:16 78:17 80:1	leads 27:8	24:9 30:12 31:18	67:2 80:13 81:1
8:12 12:4 13:12	80:20 84:10 96:3	learned 47:7 49:6	40:15 41:19 42:7	81:10 90:3,19
13:22 23:16,19	98:14,18 104:15	51:16	42:18 43:19 44:18	91:11 92:2 104:1
24:13 25:3 30:8	108:10,16 109:2	learning 50:17	45:4,13,15 47:17	106:11 107:6,7
30:10 33:17 34:14	114:4,10 118:15	84:20	55:3 60:20 61:5	109:1 112:6 113:4
46:22 50:16 53:14	120:14 127:21	leave 7:9	61:10 78:12 84:5	114:21 122:15
55:10,11 60:5		leaving 133:4		

123:4 124:8 127:22 128:11,12 129:3 looks 115:10 lost 11:17 lot 10:9 11:6,20 14:10 27:18 34:21 39:7 41:11,22 45:5 49:17 52:12 55:12 57:5,15 58:15 59:1 62:18 62:20 72:3,16 73:21,22 76:5 78:1,5 82:20 84:6 84:7,9 86:14 90:15 92:4,21 97:19 113:6 114:7 116:1 119:19 121:16 129:19 130:6 131:5 133:7 135:3,7 lots 5:4 41:21 74:3 74:5 love 105:13 low 67:7	11:9 16:18 23:14 25:14,20 27:2,19 29:21 33:21 34:3 34:15 37:20,22 38:12,16 50:1 58:5 60:14,14,14 61:9,9,22 68:21 68:22,22 69:3,10 69:17,21 70:17 83:13 94:11 103:18,19,21,21 117:19 123:10 128:8 130:1 Mark's 60:11 73:18 markets 96:17 Marks 60:12,13 61:10 68:21 118:6 Martin 1:19 3:13 13:2 Marty 18:13 21:8 mass 126:7 massive 32:10 material 25:4 116:21 materials 82:8 116:18 matter 29:11 127:11 136:5 matters 14:10 McHENRY 2:1,1 16:12,13,18,18 60:15 61:22 62:3 mean 32:13 34:8 47:2 50:17 67:10 68:3 84:6 85:13 105:5 107:1,11,12 113:5 123:5 meaningful 63:21 means 31:3 64:18 meant 58:19 measurements 3:15 57:16 59:17 59:21 60:10 62:19 63:5,13,20 64:10 64:13,17 meat 41:19	mechanism 77:10 media 16:14 medical 13:16 meet 64:14 81:6 meeting 1:7 6:15 8:12 23:17 24:3 24:10 28:3,5,20 40:14 43:8 54:21 71:5 94:12,15 116:10 117:7 123:20 127:8 131:2 134:12 136:3 meetings 24:11 40:17,18 44:15 61:8 86:22 114:7 117:13 124:22 meg 42:12 61:19 member 1:17,18,18 1:19,19,20,20,21 1:21,22,22 2:1,1,2 2:2,3,3,4,4,5,5,6,6 2:7,7 8:5 14:13 92:12 members 3:7 6:8 9:19,20 19:7 24:2 26:21 27:8 29:7 30:2 39:3 70:13 74:7 86:16 90:12 92:10,20,20 98:5 116:5 122:11 membership 70:22 116:2,9 mention 8:16 30:11 121:16 mentioned 103:16 108:1 merely 38:7 messages 85:15 met 1:12 77:13 method 57:22 methodologies 37:5 50:5 52:2 58:7,14 59:3,8 methods 56:15 60:1 79:15 87:3 87:11 95:20	Michael 1:18,18 4:6 18:22 97:10 97:11 107:18 131:2 microphone 22:22 86:20 Mike 18:18 mind 36:21 64:13 minds 125:3 minimize 53:8 minute 98:3 minutiae 87:8 89:4 missed 33:20 missing 21:17 28:11 86:16 133:6 mission 99:19 mitigation 121:9 122:9,10 mobile 63:14 66:9 67:22 121:11,21 model 8:21 9:10 30:5 58:21 modeling 120:13 models 56:19 102:17 104:1 modified 89:19 91:11 modulation 35:22 money 37:9 107:9 113:6 114:6 monitor 61:17 month 12:11 70:20 months 39:14 47:16 48:16 123:17 132:4 motel 66:13,13 move 29:17 38:11 42:20 49:9 51:2,9 55:19 56:12 67:5 69:2 77:5 83:14 84:2 86:5 105:18 106:16 108:22 122:22 123:14 125:5 135:18 moved 47:8 movement 123:3 moving 31:11 32:8	36:3 90:18 118:17 120:9 multifaceted 125:16 126:12 127:4 multiple 77:8 musings 105:12 mutable 58:11
<hr/> N <hr/>				
N 1:21 N.W 1:13 name 10:19 11:1,8 15:9 22:22 60:4 names 129:10 NARA 77:16,19 79:6 narrow 69:7 70:3 national 1:2 16:7 74:18 75:17 105:3 105:8 126:9 nationwide 67:6 naturally 118:6 naval 108:12 NDA 47:5,12 51:21 near 119:13 121:4 Nebbia 2:11 4:10 4:13 6:13 12:4,5 13:12 30:9,10 47:1 50:16,16 55:11,11,15 60:6 62:15,15 68:1,3 69:19 80:13 85:9 95:4,11 113:11,11 113:15,19 118:12 124:20 128:6,9,15 128:20 129:2,11 129:21 130:13,21 131:7 132:4 134:4 134:9,19 necessarily 84:10 90:1 103:9 112:13 necessary 56:19 need 10:4,5,6 51:2 56:14 59:15,21 61:8,12 62:5 64:14 67:11 68:13 73:12,14 76:8				

78:3,7,15,21 80:20 83:14 84:1 88:17 96:7 98:20 101:18 102:4,16 103:11 104:15 105:3 110:9,16 needed 23:21 87:18 133:6 needs 11:12 24:18 31:5 49:8 80:4 102:19 117:22 121:10 negative 53:6 neglected 35:11 negotiated 87:7 negotiation 96:18 neither 25:14 Network 15:3 networks 32:1 neutrally 114:2 never 31:16 52:15 60:8 75:7 89:4 new 4:6 5:5,14 6:7 6:7 7:14,17,19 8:1 8:5 9:19 10:17 18:6 19:1,7 21:13 24:2,11 27:9 29:7 30:6 33:5 34:17 55:19 70:14 73:6 90:12 92:20 98:11 98:11 101:12 116:5 120:21,22 news 8:15 NISPOM 75:17 nitty 83:6 noise 32:22 nominate 113:12 non-auction 97:22 non-DoD 17:10 non-federal 3:20 86:7 88:15 96:2 96:22 non-government 47:14 non-releaseable 82:10 nonprofit 15:11	19:3 nonprofits 15:16 normal 124:12 northeast 56:8 note 82:7 noted 57:8 108:19 notice 9:9 32:22 41:14,15 119:16 noticed 26:8 notices 45:10 notion 130:7,9 notional 43:6,18 November 7:4 NRTC 16:9 NTI 87:2 NTIA 3:3 4:9 6:12 7:2 9:8 24:20 27:7 29:8 35:2 39:12 41:16 43:11 43:12 44:16 62:4 62:21 87:10 89:1 89:6,13,18,19 90:19 91:12,18 94:7 95:19 96:9 96:14,19 97:15 101:18 105:14 118:18 120:12 125:14 128:11 131:17 NTIA's 118:13 number 13:21 16:2 19:21 21:6 37:4 71:5 86:21 122:4 numbers 32:10 119:4	obviously 6:6 7:9 48:15 55:6 67:21 91:18 93:8 99:2 101:10 126:6 occupancy 3:15 60:10 62:18 63:13 ocean 29:15 October 6:19 8:11 37:19 38:5 45:1 45:12 61:6 62:11 73:19 85:4 90:8 103:3 130:20 131:1 134:11 offer 126:19 Office 1:3 7:18 113:22 Officer 16:6 Offices 1:13 official 92:12 oh 18:9 69:11 106:11 124:17 okay 10:14 21:18 33:16 35:6 38:14 41:4 46:15,19 52:22 54:2 60:9 68:20 69:1,15,18 81:10 83:12 84:13 86:9 94:16,21 95:11 97:5 103:10 104:6,13 109:12 115:16,18 118:12 124:14,20 128:19 129:1,6,17,21 130:19 131:1,20 131:22 132:2,3,10 132:18,19 134:9 135:22 OMB 101:17,20 102:6 105:10 107:6 113:13,20 onboard 12:10,17 once 29:15 32:17 33:10 41:18 50:7 59:11 63:16 68:5 84:5 114:19 115:18 127:3 129:13 130:16	ones 33:11 43:4 71:6 109:21 110:2 ongoing 23:18 80:3 131:12 open 19:2 25:8 59:6 64:13 89:22 90:17 132:1 134:3 opening 3:2,4 5:11 opens 97:18 operate 49:13 52:11,12 75:5 83:21 104:11 operating 32:11 operation 33:4 112:15 operational 85:12 85:19 100:21 operations 66:8 68:19 70:8 75:18 121:11 opportunistic 100:2 108:5 opportunities 5:22 opportunity 4:15 5:8 9:2,3 24:8 36:17 opposed 28:13 35:13 54:16 127:18 opsec 84:12 optionality 88:3,3 88:11,21 options 93:14 102:2 103:13 104:9 106:15 order 22:19 51:10 106:1 organization 7:10 10:20 organizational 91:3 oriented 67:14 original 52:8 originally 13:22 79:5 OSM 4:10,13 135:10,11	outcome 31:21 outcomes 51:6 outlined 27:12 outlining 89:11,11 outside 80:2 112:19 131:5 outstanding 57:9 overall 43:10 107:10 109:6 112:17 130:12 overburdened 49:15 overtaken 45:6 overview 92:9 owned 76:10
P				
P-R-O-C-E-E-D-...				
5:1 p.m 1:14 5:2 136:5 package 29:2 packets 25:17 page 25:3 39:8,9 40:13 46:4 70:5 71:3 73:1,13 paid 87:18 108:6 Paige 2:12 7:16,20 8:3,9 12:2,8 132:8 134:10 parallel 74:5 parcel 37:13 part 7:22 14:21 19:2 37:13 50:20 55:18 57:22 64:16 64:16 68:15 79:12 96:4 99:14 108:21 109:2 112:9 115:8 119:18 131:12,14 participants 31:12 participate 24:2 81:11 98:14 117:21 126:10 128:14 participated 47:5 98:5 participates 131:12 participating 21:13 47:12				

participation 30:2 90:12 96:17 116:1 116:12 117:17 126:7	20:16	plenty 5:22 7:5	93:5,8	99:4 105:17 106:3 106:8,10
particular 9:1,17 64:15 67:7	per-device 104:2	plugged 30:7	practice 16:14 22:17	problems 108:12
particularly 17:22 53:5 63:15 70:10 99:22 107:21 113:3	perceived 102:19	point 32:19,21 33:3 36:14 37:1 38:7 47:13 53:7 56:13 67:13 103:11 107:19 112:3 114:8 120:14 128:16 131:22 132:10	preferred 25:3	procedures 49:16 120:9
parties 48:19 120:1 131:5	perfectly 25:1	pointed 33:12	preliminary 103:7	proceeding 9:17 74:4 90:15
partner 12:19	performed 7:21	pointing 133:14	preparation 122:5	proceedings 90:1
partnering 36:17	performs 121:3	points 101:17	prepare 130:17	process 29:11 46:2 47:8,13 49:20 50:15,17 51:16 57:6 83:1 101:13 101:17 102:5 114:9 118:16 119:22 130:3 131:4,13
parts 91:12 107:9	perfunctory 59:1	policy 7:22 11:11 12:10 13:3 14:3 15:20 16:1 17:3 18:19 19:4,19 20:16 21:10 64:3	present 1:15 2:9 25:10,16,21 103:7	processed 76:13
passed 133:8	period 6:7 57:12	political 105:22	presentation 116:18 118:11	processes 127:12 127:13
path 94:2	periodically 8:7	poor 23:2	presented 26:14 38:5 93:5 131:14	processing 77:22
paths 133:8	permanent 93:20	pops 31:13	President 13:8 15:10,19 16:6 18:6 64:21	procurement 101:11
Patrick 39:6	permit 88:10 91:13	population 65:13 65:14	President's 8:17	produced 26:3
Paul 1:22 17:7	person 33:3 77:1 91:20	portal 42:6,8,8,11 42:14 43:10,13,16 119:8,12	presiding 1:14	production 19:15
pay 37:9 86:2 87:15 115:6	personal 32:11	portfolio 13:3	press 127:19	productive 51:3 71:17
paying 97:14 108:5 109:22 110:2	perspective 94:8	position 8:2	pretty 87:4 88:13 133:17	Program 19:1 21:3 75:18
payment 93:12	phone 20:13,21 26:1 132:3 134:13	positive 62:18	previously 100:10	progress 47:21 48:12,13 49:8 50:10 57:6 71:2 121:7
payroll 6:21	pick 22:18 27:10 67:4	positively 47:9	primarily 14:2,8 15:16 104:8	propagation 57:9
pays 85:11	picked 44:19	possibilities 105:5 126:19	principles 89:15,22 90:22 91:16 96:21	proposal 77:15 91:21
PCAST 81:2 100:20 107:22	picking 29:11	possible 21:8 102:2 105:20 107:5	prior 19:21 71:4 99:13	pros 103:6
PDF 124:6	picture 105:22	possibly 100:6 102:18	priority 100:5 108:4	protected 79:17 75:12 76:3,12
peel 59:4	pieces 63:2	posterity 24:17	private 106:9	protecting 83:11
pending 41:8,14	pilot 62:22	potential 95:19 101:7 121:8	private-sector 105:18	protection 40:1,2
people 10:18 20:14 22:10 24:7 39:3,4 41:11,21 45:3 52:1 59:1 60:19 63:11,22 65:18,19 66:6 70:6,22 71:15 72:10,15 79:16 80:5 87:17 98:16 105:16 108:4 116:2,21 117:14 119:12 123:21 126:2,16 128:13 129:9 135:2	pin 103:11	potentially 32:9,15 81:16 97:19 100:4 102:12 122:2	probable 114:22	prove 120:6
Pepper 2:2 20:15	ping 85:4	Povelites 2:3 15:18 15:18	probably 11:11 29:5 41:19 43:12 47:13 59:13 60:2 67:7 70:20 77:16 77:19 80:7 82:1 85:7 92:1 117:7 124:15	provide 83:18 131:9,16
	place 8:22 36:8 53:2 67:1 68:7 77:20	power 105:15	probe 107:20	provided 7:11 73:3
	places 46:8	PowerPoint 27:13	problem 36:3,19	
	plan 38:5,7 65:2 67:14 122:13 124:9 125:16 126:22 131:14 135:16			
	planning 7:22 12:9 102:22			
	plans 41:9 45:9 118:17 119:14,18 119:20			
	play 51:12 97:2 99:2 125:20			
	please 22:21 118:8			
	pleased 20:10			
	pleasure 133:19 134:16 135:22			

95:12
provider 53:7
providers 16:9
 32:2
providing 119:22
provision 107:2
provisions 112:11
Provost 14:16
public 4:15 15:10
 15:16,19 41:1,3
 41:14,15 45:10
 83:5 118:14
 119:16 126:5,7
 129:3 130:6 132:1
 132:2,3,5
publically 52:3
 119:14
publicized 40:22
publicly 9:14
publish 119:14
pull 22:22
pulling 126:2
purpose 30:12
pursuant 79:7
pursue 36:18
put 8:11 39:10
 42:18 56:7 61:1
 62:4 65:1 67:1
 68:22 72:1 73:9
 96:5 97:1 108:18
 117:3 122:11
 125:10,15 126:21
 135:2
putting 60:3 131:8

Q

quantification 3:16
 64:21 65:3 68:12
 124:9
quantify 66:15,17
 66:20 67:12
quantifying 64:18
question 31:6
 34:16 37:7 44:22
 45:2 46:18 50:20
 55:18 68:6 69:8
 70:4,12 73:18
 85:22 88:18,22

93:12 94:3 97:15
 97:16,18 98:4
 103:15 104:21
 105:9 106:8 115:9
 123:10 131:8,11
questions 22:4,6
 23:20 27:6 28:15
 29:1,9,12,16,18
 30:13,21 31:13
 33:6,10 39:9,10
 39:12,16 46:21
 50:22 55:12,16
 62:4,5,7,12,13,16
 73:1,2,2,4,9,15
 74:10,10,14 75:2
 75:6,22 76:5,6,9
 78:1,12 80:15
 81:5,8 87:10,19
 93:15,21 124:17
 128:5 129:7
quick 85:9 118:12
quickly 101:11
 105:5 122:22
quite 36:1 47:19
 87:7 88:1 89:10

R

radar 14:10 63:6
 63:14,14 66:2
 71:21,21
radars 14:8 63:9
 67:21 108:13
raised 32:17 91:6
 124:22
rapid 105:3
Rath 2:3 13:19,20
rational 110:11
Raytheon 14:5,11
re-chartered 92:19
re-enactment
 111:1
reached 32:5 119:2
react 24:22 53:14
 54:11
read 26:16 78:12
 78:13 116:22
ready 94:12 118:11
 136:3

real 9:4 70:11 85:9
 85:17 106:14
 134:16
realist 104:21
realistic 113:8
realities 85:19
reallocation 52:17
really 9:2,4 11:3
 21:11 24:14,18
 26:8,14 29:16
 30:16 31:16 33:13
 35:11,14 36:1,5,5
 36:7 48:8 51:2
 52:16 53:15 54:21
 57:18 71:19,22
 72:8,21 73:12,13
 73:19 74:1 76:1,6
 78:2 83:22 85:10
 89:4 91:13 98:9
 101:16 105:9,11
 107:19 110:9
 111:9 116:3 126:3
 127:15 128:21
 133:5,7 135:8,13
realm 14:22 35:13
rearguing 47:19
Reaser 2:4 14:4,4
 74:8,8
reason 80:19 98:3
 104:16 118:1,2,3
reasonable 88:1
reasons 6:2 11:20
receiving 121:19
recognize 20:6 96:9
 125:7
recognizes 26:20
 51:5
recommend 79:22
 90:21 91:19
recommendation
 42:16 43:22 44:12
 44:13,19 100:11
 117:4
recommendations
 8:20 24:15,19
 29:13,17 35:2
 42:2 45:13,16

54:7 56:4 60:2
 73:17,20 74:2
 75:9 80:10 90:3
 90:10,16 93:1,11
 94:19,20 95:7,14
 101:19 116:20
 127:1 135:12
record 12:4 51:7
 130:6 136:5
Records 74:18
recovery 3:22 97:8
 97:10,12
recruiting 7:19
red 91:12
redact 119:19
redefine 121:5
Reed 2:4 14:12,12
refer 41:5
referred 27:17
refine 58:14,14
 60:1
refinement 40:20
reflecting 65:19
refresh 62:5
regard 130:12
regarding 119:20
regime 36:4
regions 92:7
regular 44:15 46:9
regulation 13:3
regulations 91:7
 96:15
regulatory 11:11
 17:21 89:12 91:8
 110:4 111:21
reimburse 100:16
reimbursement
 98:20 99:20
 111:18 114:8
reimbursements
 99:6 107:3
Rein 1:13 2:12
 19:18,22
reintroduces 26:15
 26:18
reinvent 58:1
relate 99:10

related 51:1 65:8
 99:6,21 107:13
release 41:8
releaseable 119:14
released 9:14
 123:17 124:9
releasing 9:9
 119:15 120:8
relevant 10:20 74:6
relocation 98:19
 99:5 100:12 102:7
 113:5
remained 23:20
remains 44:11
 58:10
remarks 3:2 4:18
 5:11 132:20
remember 8:16
 75:8 134:1
reminisce 7:6
remiss 27:1 90:11
remove 91:8
removed 114:16
repeat 70:5
report 3:12,14,16
 3:18,20 4:5 8:18
 25:21 28:2,19
 38:6 56:1 61:3,4
 65:1 87:2 93:6,6
 95:12,20 103:8
reporting 86:10
reports 3:11 24:16
 57:8
representation
 28:8
reps 47:6
request 117:21
require 120:3
 121:22 122:17
required 119:5
requirement 61:16
 76:14
requirements
 77:12 79:4 80:8
 81:7
requires 84:11
resale 87:6 88:12

research 12:16 14:16 115:10	62:22 80:3,17 87:4 95:3 106:19 107:12 110:20 112:16 114:5,20 118:5 123:19 124:6,15,18 130:20	86:13 rural 16:7,8	66:3 68:7,9 72:5,9 72:11 73:13 80:18 81:9,19 87:1,2 89:18 92:11 95:5 103:1 105:13 113:20 114:22 116:11 122:7,21 123:13,18 127:3 127:15 128:17	111:11,14,16 112:20
resides 43:11	rights 15:11	<hr/> S <hr/>	seeing 31:1 32:9 81:1	sharing 3:14,22 9:1 16:20 28:12 31:2 31:10,11 34:6,19 36:4 38:15 39:22 40:2 41:17 43:10 44:6 46:9,12,13 48:3,18,20 83:20 83:22 86:6 87:4 89:20,22 91:13,22 96:18,21 97:12,14 97:17,21 99:22 105:6,7 107:3,4 107:10,12,14 108:20 109:3,7,9 112:12,16,18 125:14
resolution 48:5	rising 32:22	S 1:18,19	seeking 90:11	shelf 37:15
resolved 40:12 57:10 106:2	risk 22:9 87:17	sad 60:15	seeks 93:7	ship 72:4,6,9 85:13 85:14
resourced 97:21	roadmap 109:2	salute 7:6	seen 31:19 38:18 42:5 44:11 58:11	shipborne 71:21
resources 37:6,14	Rob 40:22 48:3,22 50:2	Samsung 17:1,1 49:2	self 93:10	ships 72:11
respect 8:7 61:19 67:20 78:6 83:16 90:10 93:11,17,21 121:18	Roberson 2:5 14:15,16 35:8,9	sandbox 83:22	self-interest 105:9	shoes 23:15
respective 102:15	Robert 1:22 2:2 20:16	SAS 81:4 121:3	send 70:17,18,21 85:15 129:10	short 25:2 65:5 88:20 103:7 106:1
responses 70:11	robust 99:21	satellite 32:1,18 48:3 49:14 121:11	senior 15:10 17:18 19:17 21:4	short-term 88:16
responsibilities 8:1 15:22	role 11:3,13 79:20 79:22 125:19 131:16	saw 95:18	sense 54:6 66:21 82:5 90:17 102:3 104:2 108:10 110:19 122:16	shortly 41:13
responsibility 37:12	roll 3:6 10:14 50:9 54:4	saying 33:19 85:7 90:11 95:16 109:17 118:5 128:21	sentencing 123:8	show 5:22 69:22
responsible 15:4 19:9 110:6	rolling 53:7	says 66:4	sensitive 70:7 110:7	show-up 135:6
restart 27:4	room 5:9 9:16 10:16 13:17 21:22 25:18 50:7 59:19 66:12,13,14 116:15 117:2,15 132:2	scare 30:5	separate 130:7,14	shown 126:1
restrooms 22:2	rotating 66:5	scenarios 89:11	September 28:7	side 17:9,10 22:3 38:3 63:8 85:11 87:21 119:11 126:15,16
result 119:1	round 14:22 89:7 89:17 92:10 117:10 126:6	Schaubach 2:5 16:4,5	series 95:21	sigless 49:14
results 42:16 55:21	row 55:6	scheduled 28:6 70:21	serve 5:16 27:14	signal 76:20
retirement 133:22	rowing 54:14	schemes 35:22	served 104:3	signal 67:4
rev 98:9	rubber 117:15	Science 8:17	service 32:2 53:8	significant 97:2 102:22 120:11
revenue 99:11 100:15 101:7 102:2 104:9 108:7 108:16 111:17	rulemaking 96:4 120:15	scientific 13:15	services 19:8 65:22 97:22 109:9	
revenues 104:9	rulemakings 31:20	scope 102:1 103:12	servicing 11:7	
review 36:6 59:14 96:14	rules 32:6 61:16 81:13 89:18 91:7	score 114:2	session 95:1	
revisit 62:8 101:22	run 22:11 77:17 84:13	scorecard 92:4	set 29:6 30:21 38:8 62:12 100:16 127:8 135:11	
revolving 100:14 101:3	running 13:17	scores 113:22	share 63:18 67:22 71:14 90:22 99:16 112:2	
RF 17:11		scrutinized 91:14	shareable 115:15	
rhetoric 92:4		se 44:10	shared 16:19 71:13	
RICHARD 2:4		seat 8:11		
Rick 14:4 74:8 78:9 84:6		SEC 5:12 6:17 7:16 20:1		
rider 106:10		second 7:19 19:4 22:2,2 44:14 70:5 96:8 121:15		
riders 106:9		secondary 96:17		
riding 108:11		Secretary 2:10		
right 20:20 21:17 37:18 38:9,12 52:4,18 54:10		sector 106:9		
		security 75:17 76:2 85:11 126:9		
		see 26:17 31:20 35:18 41:5 47:2 48:8 50:3 64:2,22		

122:20 significantly 119:4 Silicon 21:4 similar 40:3 similarly 102:10 simple 97:18 Simultaneous 55:14 113:18 130:22 sincerely 12:11 single 97:18 sink 41:19 sit 37:12 101:16 105:20 site 56:9 sitting 12:5 14:18 situation 109:20 situations 52:7 58:3 sleeves 50:10 54:4 slide 40:6,14 43:2,6 43:20,21 44:13,20 98:5 slides 86:14 slip 94:4 slow 121:7 small 37:1 53:18 126:2 smaller 47:17 48:18 49:7 51:22 54:1,15 55:2 soft 95:14 solicit 30:1 solicitation 39:13 soliciting 9:9 solution 65:4 solutions 51:11 52:2 105:21 106:17 solve 10:4 105:4,10 106:12 somebody 86:16 128:1 someplace 54:13 somewhat 58:22 soon 9:6 49:5 sooner 7:4	Sorond 2:6 15:2,3 sorry 26:5 52:6 55:12 69:13,16 99:1 111:12 sort 43:6 46:2,8,12 48:11 50:8 53:22 54:22 58:6 59:2 101:3 132:9 133:12 sorts 76:22 105:6 sought 93:19 sound 58:22 113:16 113:16 source 99:20 111:17 sources 100:15 101:8 space 17:3,11,12 19:14 70:14 speak 11:22 22:15 23:6 30:8,10 48:3 132:21 speaker 78:20 speaking 22:15 55:14 113:18 130:22 special 3:8 20:6 specific 30:13 32:3 47:2 48:11 49:21 50:9,21 51:10,20 62:16 68:11 71:20 82:14 89:8 90:20 115:1,13 119:21 120:4 specifically 31:9 33:7 67:2 80:14 95:16 125:11 129:14 130:16 134:22 specified 75:3,12 spectral 17:12 18:15 spectrum 1:3,5 3:16,18,22 4:9 5:17 7:18 8:18 9:1 10:5,7 11:6,15 12:9 13:4,5,9,21	14:3,6,9 15:1,7,15 16:1,16,16,19,20 17:3 18:1,3,9,19 19:10,11,19 20:17 31:2 63:13 64:19 64:22 65:3 66:17 67:12 68:15 69:6 87:22 88:6 93:18 97:7,9,12 98:18 99:5,18 100:11,13 102:7 105:1 110:12 111:8,18 113:4 114:13,21 115:15 123:7 spectrum-related 11:14 21:10 spectrum-sharing 96:16 spectrum.gov 123:17 speed 24:6 spending 114:5 spent 11:15 16:9 49:17 spirit 54:13 spoke 135:10 spoken 100:19 spring 20:3 staff 82:21 stakeholders 43:2 43:3 44:4,8,10,15 45:8 46:3 stamping 117:15 stand 67:1 standard 22:16 standards 15:7 standpoint 65:11 80:21 123:13 start 10:22 24:20 32:12 83:6 94:6 114:21 126:13 started 56:1 71:11 starting 13:21 67:13 state 18:6 22:21 statement 89:14 91:15 96:20	static 120:17 stating 95:6 station 35:18 stations 49:14 status 24:4 73:8 statute 132:9 statutes 110:7 stay 28:1 55:3 85:21 86:3 step 48:16 120:17 120:18,20 121:5 stepped 5:20 stepping 23:14 steps 44:21 101:21 106:10 Steve 2:6 17:20 52:4,5,6 53:10,13 53:21 57:3,5 58:5 59:12 92:11 106:21 108:17 111:6 112:7,8 113:12 Steve's 60:4 stick 23:17 sticky 87:19 stored 76:13 strategic 108:19 straw 130:18 Street 1:13 Strickling 2:10 3:3 5:10,12 6:17 7:16 20:1 100:18 Strickling's 118:4 strives 70:10 structure 53:1 stuck 64:1 studies 57:16 study 40:6 59:5 71:18 72:1,21 91:4 stuff 14:10 39:1 41:18 75:21 76:22 84:7 123:7 132:13 132:14 sub-working 45:21 subcommittee 3:11 3:12,14,16,18,20	4:5 99:13,14 100:9 130:14 subcommittees 3:11 23:13 116:6 subject 86:2 125:4 submit 116:20 submitted 118:18 118:19 subsequent 24:11 subset 131:13 successful 32:20 129:5 successfully 69:7 70:3 succinct 24:19 suddenly 123:10 sufficient 118:18 sufficiently 105:2 suggest 134:2 suggested 29:8 43:22 suggesting 81:2 Sugrue 39:4 sunset 135:17 support 19:15 89:2 134:20 supporting 25:4 66:2 supposed 41:10 sure 6:18 9:13 21:21 22:12 23:5 23:6 28:1 30:6 40:22 42:19,22 46:4,10 49:1 66:7 79:20 84:16 111:1 111:6 112:2 116:3 128:6 surprised 19:14 86:18 surprises 46:5 surveillance 66:12 symposia 44:1 synonymous 40:4 system 75:11 76:21 77:7 83:5 systems 32:12 52:9 52:11,12,14 74:13
--	---	--	--	---

75:5 76:20 122:3	16:6 17:11,22 18:19 19:3 126:16	59:9 61:14 62:19 66:16,19 71:17 72:11,13 75:21 76:1 77:3 81:12 82:22 84:18 96:13 103:10 106:13 117:19 132:13 135:7	86:16 88:19 90:16 92:4 93:9,16 94:11 97:2 98:7 98:10,17 100:18 101:5 102:3 103:3 103:9,11 104:7,8 104:21 105:9 106:7 107:1,20 108:12 109:13,18 110:3,9,15 111:2 111:8 112:9,20 113:8,19,20,21 114:2,17,17,22 115:3,8,20 117:2 118:10 119:2,3 120:6,11 121:20 122:12,16,19 123:8,12,18,19 124:15,21 125:3 126:10,21 128:1,9 128:15,22 129:11 129:18 131:16 132:10,14 133:21 135:17 136:2	time 7:6,8 13:9 18:21 22:5 34:9 38:7 45:12 49:17 56:22 57:11 58:1 59:5,12 61:2 64:19 65:8,16,20 70:11,18 76:19 79:8 85:17 88:13 93:10 105:2 123:19 124:13 126:4 127:9 135:3 135:18 times 17:15 38:20 119:4 title 11:10 to-room 66:13 today 7:8 9:7 16:1 20:2 25:15 73:8 Tokyo 20:19 told 76:14 Tom 19:16 22:8 38:16 39:4 45:16 45:18 46:16 47:10 50:2 52:5 53:11 53:12 60:22 92:15 124:21 tomorrow 9:7 tools 28:10 51:2,4 55:17,19 56:13,14 57:1 58:6,8,9,11 79:18 topic 72:18 74:2,6 109:15 129:18 topics 49:21 total 15:5 touch 11:6 tough 115:1 track 11:17 56:1 117:22 118:9 120:16 traditional 55:20 80:21 traffic 66:2 Tramont 2:7 12:18 12:18 36:22,22 109:12,13 111:4 111:10,13
T	teeth 41:20 42:18 telecom 15:21 telecommunicati... 1:2 16:7,8,14 21:3 telecon 27:5 telephone 1:21 2:2 tell 69:20 78:3 temporary 93:12 93:18 tend 51:5 tent 22:16 tenure 7:2 term 19:5 39:22 44:6 46:13 65:5 88:10,20 terms 47:18,21 63:12 64:19 65:20 66:17 81:13 83:10 88:11,12 91:11 101:16 102:4 104:8 105:6,15 106:4 terrain 56:19 57:10 58:21 test 8:22 9:4 testing 19:15 59:22 102:22 thank 6:3 10:11,12 12:17 15:2 18:11 20:1 33:15 34:2 35:9 57:1 78:11 79:9 92:18,20 94:9 118:3,9 133:13 134:6 135:19,21 thanks 13:19 15:8 20:21 21:15 22:7 22:8 38:10 46:15 53:10 78:9 95:3 106:20 115:16 theme 130:12 they'd 80:15 82:1 123:13 thing 22:13,14,20 28:4 29:21 50:1	things 11:4 19:10 22:17 23:7 24:10 26:8 27:12 29:22 31:17 33:8 40:1,9 41:22 47:8,19 50:18 51:5,11 56:2 59:2,5 75:3,7 75:11 76:16 78:2 79:8 84:12 93:16 95:18 97:1 113:7 113:20,22 114:19 118:5,13 124:11 124:12 125:2 128:21 think 6:19 7:3 8:13 10:13,15 11:17,22 18:2 20:18 21:8 21:16 22:16 23:8 23:11 25:3,6 26:19 27:18 30:11 31:17 33:10,17 34:14 35:4 37:1 38:4 39:8 40:7 41:2 43:8 44:5,5 45:19 47:16,20 48:2,5,10,14,16 49:6,19,20 50:12 51:11 52:7,10,21 53:3,18,21,21 54:14,16,18 55:2 55:18 58:2,8,13 59:9,10 60:1,6,11 60:19 61:1,20 62:7,10 65:1,17 68:5 72:7 73:19 76:15 77:3 78:2 78:21 80:13 81:8 82:3,17 83:8,15 84:2,4,10,21	thinking 27:19 34:7 37:10 80:9 81:12 117:11 125:4 135:6 thinks 6:14,22 Third 96:14 thirsty 22:1 THOMAS 1:19 thought 13:16 33:20 72:17 87:17 100:1 127:21 132:7 thoughts 54:7 115:17 124:1 128:3 130:1 threading 129:19 three 12:16 17:2 36:20 49:2,3 50:14 60:12,13 61:10 63:8 THURSDAY 1:9 tie 109:5 115:12 Tiger 122:7	

transcript 23:1,4
transit 39:21
transition 6:6,11
 35:12 41:9 45:9
 53:2 118:17
transitional 3:14
 38:15 39:22 41:17
 46:12 125:14
treat 75:19
treated 82:11
tremendous 125:8
tried 30:20
true 84:7 100:1
trust 34:18
trusted 40:10,11,16
 40:18 45:7 52:20
try 22:19 23:3 33:7
 49:8 50:19 94:6
 122:7 124:4
 130:17
trying 29:14 30:6
 33:18 45:20 46:1
 53:8 64:5,7 81:19
 82:3 84:16 123:14
 125:4
tuned 28:1 86:3
turn 10:10 22:15
 90:8
turns 88:3
twice 115:18
two 12:21 29:11,16
 39:19 43:8 47:4
 47:11 50:14 52:7
 55:7,8 60:11
 91:13,22 92:2
 121:6 129:12
 133:13
type 46:10 96:13
 100:12 122:3
 135:7
types 22:17 85:19
 125:20

U

U.S 1:1 17:4 122:1
ultimately 32:6
 43:10 101:19
 114:1 123:2

unable 33:1
unclear 102:14
underscores 36:12
understand 20:7
 53:19 58:20 64:11
 78:16 80:5 130:4
understanding
 46:11 47:22 48:1
 48:19 52:11,14
 79:14,18 113:21
underway 28:18
unique 28:11
university 12:16
 21:2
unknown 133:22
unlicensed 87:16
 98:1 100:2 105:6
 106:4 108:3 109:9
 109:20,21 111:18
 114:12 115:5
 126:15
unlocked 105:7
unrelated 99:18
unresolved 123:7
unusual 133:8
up-front 102:21
update 4:9 24:4
 40:13 91:7 102:1
 116:9,11 118:13
usable 66:7
use 3:16 55:17
 56:11,20 58:10
 64:18,22 65:3,8
 65:20 66:17 67:12
 68:14 83:18 87:16
 88:12 90:22 92:5
 92:6 99:17 100:7
 107:9 109:20
 110:1,12 115:3
useful 49:21 52:10
 94:8 120:19
 123:22
users 81:18 87:14
 87:17,21 88:4,5
 91:10 96:22
 109:21
uses 79:16 108:9

utilization 88:10
 92:2
utilized 88:7
UTIM 104:1,3

V

validate 57:15
 59:22
valuable 61:15
 95:10
valuation 16:17
value 35:4 62:21
 95:5 126:2
variety 16:16 17:11
 18:1 58:3 109:4
various 27:20 45:8
 71:11 100:15
 116:6 118:13
vast 100:7
Verizon 13:20 14:3
version 5:4
veterans 5:15
Vice 14:16 15:10
 15:19 16:5
view 53:7 107:7,17
 123:1
Virginia 14:13,18
voice 35:13
void 122:16
volunteer 128:2
voting 94:12

W

waiting 41:7,11
 98:10
walk 25:7 42:4 72:8
 72:11 91:20
walking 83:1
walks 7:5
want 9:18 21:19
 22:11,14 23:9,12
 23:21 24:1 33:13
 40:4 41:21 42:22
 45:17 48:21 51:1
 60:17 61:13,20,22
 62:1 70:16 71:1
 74:1 75:4 79:17
 85:17 89:4 94:17

95:7 96:12 98:9
 98:13 106:16
 108:10 116:3
 125:5 128:4,13
 135:19
wanted 6:13 7:14
 20:9 27:2 30:11
 34:13 47:1 71:19
 93:4 94:5 95:4
 113:12 115:18
 129:12
wants 8:10
Warren 2:7 3:13
 13:1,1 25:20 26:4
 26:5,10,12 34:12
 34:13 37:21,22
 67:16,16 78:11,12
 93:3,3 110:22,22
 111:6,12,15
Washington 1:13
 104:22 106:1,19
wasn't 47:22 94:3
watching 9:16
wave 62:1
way 25:17 35:16
 48:1,14 51:3
 66:11,20 82:4
 83:7 84:18 91:13
 91:22 92:1,2
 103:20 105:17
 109:5 110:5,16
 114:15,20 117:13
 135:10
ways 27:19,20
 47:22 63:3,20
 71:11 102:14
 104:17 107:9,15
 109:4 110:3 130:8
we'll 5:7 7:5 8:14
 9:12 10:15 15:14
 20:6 22:19 24:4,9
 28:2 41:19,22
 43:19 49:5 53:18
 68:10,22 70:21
 83:10 84:4 85:21
 86:4 91:2 101:21
 103:9 106:12

116:11,11 124:8
 134:11
we're 6:6 7:18 8:6
 8:9 10:1 11:22
 14:2 19:3 20:10
 21:17 25:6 26:20
 30:6,22 31:10,14
 31:20 32:8,9 33:6
 35:20 36:3 39:16
 39:19 41:7,20
 42:18,19 43:2
 45:2,11,19 46:8
 47:17 54:3 57:1
 63:16 64:5 66:10
 66:18 67:11 68:4
 68:19 74:14 75:1
 75:8,10 82:1,3
 84:16,20 85:5,15
 86:16 90:11,15,19
 91:21 98:9 101:15
 102:14 106:11
 109:13 110:10
 112:5 113:4 114:1
 115:4 117:4
 118:10 119:10,13
 124:2 127:22
 129:2,15 131:22
 132:10 136:3
we've 10:9 23:17
 29:10 30:20 31:19
 37:4 38:19 39:1
 39:11 42:3 47:17
 51:15 57:5 59:18
 60:20 63:19 68:18
 70:12 73:11,21
 81:3 90:4 98:8
 114:17 115:14
 122:1 123:7 124:6
 124:11 132:14
 135:15
weather 56:9
weather-type
 119:12
website 87:3 124:7
week 9:7 41:10
 116:18,20
weeks 101:22

<p>welcome 3:2 5:3 6:4 8:3,9 9:18,19 10:21 20:10 39:5 84:1 welcoming 98:10 went 40:17 45:21 57:15 89:6 95:11 95:21 120:15 136:5 weren't 47:19 west 30:18 Wi-Fi 122:3,12 123:2 wide 16:15 wider 100:16 Wiley 1:13 2:12 19:18,22 20:7 Wilkins 12:19 willing 52:1,3 wireless 11:5 15:6 15:20 16:3,10 19:1 126:14 Wireless@Virgi... 14:14 wish 134:2 words 133:15 work 7:20,22 8:4 9:3 11:1,9 14:5,8 15:15 16:8,13,19 17:6 21:10 22:10 26:2 27:11,15,18 28:22 34:20,21 36:12 37:18 38:4 38:7 40:11 43:7 44:21 45:2,4,7 46:12 50:8 53:8 54:9 56:1 57:14 57:15 58:15,18 60:21 61:5 68:5 71:4 73:10 90:19 92:15,20,21 95:8 106:17 110:16 114:7 122:7 123:9 123:16 125:8,22 127:17 133:13 135:4,7 workbook 120:1</p>	<p>worked 18:14 118:21 working 6:4 9:22 12:12 16:15 17:5 23:18,22 24:2,5,7 24:19 25:8,12,13 25:22 27:7 28:19 29:9 30:3 33:6 36:20 39:11,13,17 43:19 49:2,3 50:14,18 51:17 52:8 53:4 57:7,11 57:13 60:21,22 61:14 66:18 69:5 69:5,7,10 70:13 70:16,19 71:2,6 71:15 73:3 74:7 79:19 83:15 84:3 86:3 103:2 117:12 117:16 118:13 119:10 122:6 126:6 129:2,16,20 130:8,9,11 131:6 133:18 134:16 135:16 works 78:16 102:8 130:8,10 world 35:20 72:15 81:1 114:1 worms 97:19 worried 75:1 worry 8:14 worth 58:18 worthwhile 59:14 wouldn't 36:21 90:1,4 Wow 20:20 wrap 115:19,21,21 write 33:18 91:16 91:18 135:11 written 33:7 wrong 111:7</p> <hr/> <p style="text-align: center;">X</p> <hr/> <p style="text-align: center;">Y</p> <hr/> <p>yeah 62:15 year 6:19 7:3 21:9</p>	<p>40:15 48:17 58:17 99:4 years 7:12 8:19 9:21 11:3,14,17 11:19 12:16 13:21 14:1 15:5,13,15 15:21 16:10 17:2 17:3 18:4 19:12 19:19,20,21 21:7 31:8 45:22 82:19 100:10 122:4 133:18 134:17 135:9 yield 27:18 York 18:6 young 13:14</p> <hr/> <p style="text-align: center;">Z</p> <hr/> <p>ZIP 120:2 Zoller 7:21 zone 40:1,2,2,3 48:18 83:19 zones 83:19</p> <hr/> <p style="text-align: center;">0</p> <hr/> <p style="text-align: center;">1</p> <hr/> <p>1:00 1:14 5:2 10 1:10 3:5,7 43:21 100 66:4 100-page 24:16 45:14 11 44:14 119 4:10 126 4:13 133 4:16 134 4:20 15 15:15 1695 56:2 61:18 119:11 1695-to-1710 42:12 1710 61:19 119:11 1755 32:18 1755-to-1780 31:21 1776 1:13</p> <hr/> <p style="text-align: center;">2</p> <hr/> <p>2 39:9</p>	<p>20 3:8 15:5 16:10 2000-something 11:18 2001 18:9 2006 98:22 99:1 2009 18:8 2010 11:18 16:15 2014 1:10 5:4 21 3:10 17:3 24/7 8:6 24th 27:5 25 3:11 14:1 15:20 19:20 26 3:13 28 15:21</p> <hr/> <p style="text-align: center;">3</p> <hr/> <p>3 17:5 3.5 46:7 71:20 74:3 100:4 107:11 108:1,13 120:10 3:00 136:5 30 11:14 19:12 31:7 55:8 30-volume 24:16 39 3:14</p> <hr/> <p style="text-align: center;">4</p> <hr/> <p>40 31:8</p> <hr/> <p style="text-align: center;">5</p> <hr/> <p>5 3:3 40:7 114:5 121:6,13 50 88:7,8 51st 21:9 5350 121:6 5470 121:7 5850 121:15,19 5925 121:15,19 5th 65:2 124:10</p> <hr/> <p style="text-align: center;">6</p> <hr/> <p>61 3:17</p> <hr/> <p style="text-align: center;">7</p> <hr/> <p>7 40:14 70 3:19 82:19</p>	<hr/> <p style="text-align: center;">8</p> <hr/> <p>8 43:2 80 82:19 87 3:21</p> <hr/> <p style="text-align: center;">9</p> <hr/>
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This is to certify that the foregoing transcript

In the matter of: Commerce Spectrum Management

Before: DOC/NTIA

Date: 07-10-14

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