

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION

COMMERCE SPECTRUM MANAGEMENT ADVISORY COMMITTEE
(CSMAC) MEETING

Washington, D.C.
Friday, July 15, 2022

1 PARTICIPANTS:

2 ANTONIO RICHARDSON
3 Organizer, Designated Federal Officer
4 NTIA

4 CHARLA RATH
5 Co-Chair
6 Commerce Spectrum Management Advisory
7 Committee

6 ALAN DAVIDSON
7 Assistant Secretary of Commerce for
8 Communications and Information
9 NTIA

9 CHARLES COOPER
10 Associate Administrator, Office of Spectrum
11 Management
12 NTIA

11 REZA AFEFI
12 Director, Emerging Spectrum Strategies and
13 Planning Intel

13 JENNIFER ALVAREZ
14 CEO
15 Aurora Insight Inc.

15 HILARY CAIN
16 Vice President of Technology, Innovation and
17 Mobility Policy
18 Alliance for Automotive Innovation

18 MICHAEL CALABRESE
19 Director
20 The New American Foundation, Wireless Future
21 Program

20 THOMAS DOMBROWSKY, JR.
21 Senior Engineering Advisor
22 DLA Piper LLP

1 PARTICIPANTS (CONT'D):

2 H. MARK GIBSON
3 Senior Director, Business Development.
4 CommScope

5 DALE HATFIELD
6 Senior Fellow
7 Silicon Flatirons Centers for Law,
8 Technology, and Entrepreneurship

9 CAROLYN KAHN
10 Chief Spectrum Economist
11 The MITRE Corporation, Center for Acquisition
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13 JENNIFER MANNER
14 Senior VP, Regulatory Affairs
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16 PAUL MARGIE
17 Partner
18 Harris, Witshire and Grannis LLP

19 JENNIFER MCCARTHY
20 Vice President, Legal Advocacy
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22 DONNA BETHEA-MURPHY
23 Senior VP, Global Regulatory
24 INMARSAT

25 KARL NEBBIA
26 Senior Spectrum Regulatory Advisor
27 Alion Science and Technology

28 LOUIS PERAERTZ
29 Vice President of Policy
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31 DANIELLE PIÑERES
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Independent Consultant (Co-Chair)

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4 GLENN REYNOLDS
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Government Relations
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7 DENNIS ROBERSON
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11 JESSE RUSSELL
Chairman and CEO
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13 STEVE SHARKEY
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14 T-Mobile US, Inc.

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16 MARIAM SOROND
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18 RIKIN THAKKER
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20 BRYAN TRAMONT
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22 JENNIFER WARREN
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2 ROBERT WELLER
3 VP for Spectrum Policy.
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5 PATRICK WELSH
6 Vice President, Federal Regulatory and Legal
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14 Communications and Information.
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1 P R O C E E D I N G S

2 (1:01 p.m.)

3 MR. RICHARDSON: Good afternoon,
4 everyone, and welcome to the Commerce Spectrum
5 Management Advisory Committee meeting.

6 For those who don't know me, my name is
7 Antonio Richardson. I'm the designated federal
8 officer for this committee. Of course, this is
9 the first meeting of the new term, and I'm really
10 excited to get this going, and I'm also looking
11 forward to working with all the committee members,
12 both new and old, so it's going to be really nice.

13 And with that being said, I'd like to put out
14 a couple of housekeeping notes. One, please mute
15 your phone and or microphones on your computers if
16 you're not talking. I think we're going to do
17 pretty good. I think after two years now, I think
18 we all should be aware of that, you know, open
19 mic, so of course that'll just keep down the extra
20 noise, unnecessary noise.

21 Also, with regards to the ethics briefing that
22 will be done at the conclusion of this meeting, so

1 I'm going to need all the CSMAC members to stay
2 online after the meeting is adjourned, to take
3 maybe ten minutes at the most to do the ethics
4 briefing. Mr. Eli Sherlock will come on toward
5 the end there and we'll go ahead on and conduct
6 that.

7 So, with that being said, this meeting is
8 being recorded to assist with the drafting the
9 summary meeting minutes, and attendees' volunteer
10 participation in the meeting demonstrates consents
11 to this recording, and I will now turn this over
12 to Mr. Charles Cooper, the associate administrator
13 for the office of Spectrum management, here at
14 NTIA, Mr. Cooper.

15 MR. COOPER: Thank you, Antonio. We
16 will start off the meeting with opening remarks by
17 Assistant Secretary Alan Davidson. Little bit of
18 background on Alan, after receiving his recent
19 senate confirmation, Alan has been at NTIA now,
20 but this is also his first meeting, and of course,
21 the first meeting of the cycle. Alan is a
22 internet policy expert with over 20 years of

1 experience, as an executive, public interest
2 advocate, technologist, and attorney.

3 He was most recently a senior advisor at the
4 Mozilla Foundation, a global nonprofit that
5 promotes openness, innovation, and participation
6 on the internet. Alan earlier served in the
7 Obama-Biden Administration as the first director
8 of digital economy at the U.S. Department of
9 Commerce. He started Google's public policy
10 office in Washington, D.C., leading government
11 relations and policy in North and South America
12 for seven years, until 2012. It's my pleasure to
13 introduce Alan.

14 MR. DAVIDSON: Well, thank -- thank you
15 Charles, and thank you everyone for joining.

16 Welcome to our first CSMAC meeting of 2022 as
17 we kick off this new cycle for the committee. I'm
18 excited to join you. And first I'll start by
19 saying, welcome to all our returning and new
20 members of CSMAC. Welcome as well to the public
21 that's joining us today, and we really appreciate
22 the attention. As Charles noted, this is my first

1 CSMAC, my first CSMAC ever I should say. I've
2 been hearing about this committee for years. It
3 does have one of the acronyms that you can
4 actually say, which I think actually helps.

5 But it has a high reputation, a high
6 reputation, I should say in our community. And
7 that's largely because of all of you. It's always
8 attracted dedicated people, dedicated
9 professionals, with a wide range of experiences to
10 help inform our -- our federal work on Spectrum.
11 And it's always had a commitment to evidence- and
12 science-based decision making that we feel is
13 extremely important today.

14 This term, of course, we're welcoming back 15
15 returning members, so thank you for continuing to
16 support this work, and, I think, we've got 13 new
17 members, which is terrific to see.

18 CSMAC this year is going to be co-chaired by
19 Charla Rath and Jennifer Manner, two CSMAC
20 veterans, who have been really guiding lights in
21 our Spectrum community for many years. I just
22 want to say a special thank you to your both -- to

1 you both for your service.

2 You know, as we think about the work of this
3 group, and our work at NTIA, I think there are
4 really three top priorities, three things that are
5 top of mind for me, as we think about promoting
6 effective and efficient use of Spectrum to meet
7 our nation's needs. You know, the first is that
8 NTIA is really working towards a coordinated
9 national approach to Spectrum use, with an
10 emphasis on coordinated.

11 As I mentioned, we really care deeply now
12 about promoting evidence-based approaches to
13 Spectrum allocation, and working through the hard
14 science issues there, and we are going to be
15 leaning on new, innovative technology to ensure
16 that we can meet the -- meet the Spectrum needs of
17 our country in the future, especially at a time
18 of, you know, increasing scarcity, increasing
19 demand.

20 You know, a starting point in those three --
21 in those pieces has been our work to coordinate
22 across the federal government, and particularly

1 with the FCC. And I'll just do a particular
2 shoutout to the FCC chairwoman and the Spectrum
3 coordination initiative that we launched together.
4 The chairwoman's been a -- a terrific partner for
5 me already in this job, very kind and generous in
6 her time.

7 And also, we are very committed to making sure
8 that the commission, and NTIA and the other
9 federal agencies, are all working together well
10 and in lockstep. Some of you have probably heard
11 about the Spectrum coordination initiative that we
12 launched, and a piece of that is making sure that
13 we're exchanging technical information well.

14 And so, today, I'm glad that we're welcome
15 Jessica Quinley, of the FCC's Wireless
16 Telecommunications Bureau, to CSMAC, as the FCC's
17 liaison and representative. We've also similarly
18 sent Doug Brake from our -- from OSM, our Office
19 of Spectrum Management, has been attending the
20 FCC's technical advisory committee meetings as
21 NTIA's representative, and I think that that
22 cross-pollination is really important. It's

1 important symbolically, but it's important truly
2 to make sure that we are well in sync on what
3 we're doing and learning together.

4 I will say, as I think about those priorities
5 and goals for us, CSMAC is really actually an
6 important element in this overall effort. And I
7 know you -- this committee has a long history, but
8 your guidance is really more important than ever
9 for us. I've said in -- in public hearings and at
10 my confirmation process that I hope that our goal
11 in Spectrum at NTIA is going to be increasingly to
12 look ahead. You know, not just think about the
13 next year or two, but to be thinking about five
14 years out, ten years out.

15 It's the old, you know, ice-skating Wayne
16 Gretzky quote that, you know -- "Don't skate to
17 where the puck is now, but skate to where the puck
18 is going." And that's very much where I hope
19 CSMAC can help us. When I was first, you know,
20 getting -- learning about a lot about Spectrum 10
21 or 12 years ago, 15 years ago, the conversations
22 that we're having now about technology, about

1 which bands are going to be of use for the private
2 sector, so different now than what the
3 conversation we were -- I don't have to tell you
4 all, right? So -- but it's amazing to reflect
5 back and think about how much has changed, and we
6 can only imagine how things are going to change in
7 the next decade. And so, this is where I really
8 feel like the -- the input and guidance of the
9 private sector of stakeholders and academics is so
10 important for us.

11 This cycle, we've got a new set of questions
12 for -- that we've -- we're posing to CSMAC to
13 study. You know, topics that include Spectrum
14 Relocation Fund, the impact of 6G on government
15 services, how we can improve electromagnetic
16 capability -- I'm sorry, compatibility, and
17 Ultra-Wideband rules. But all of this is really
18 about how your guidance on these issues will
19 impact, and can impact, government and nonfederal
20 Spectrum usage for years to come. So, it's very
21 important work, and we really value it.

22 Last thing I'll just say is, you know, I'm

1 very committed to making sure that you have the
2 ability to follow the science and the engineering
3 wherever they lead you, in the tradition of
4 evidence-based policymaking that we feel has
5 always guided this committee. You all have access
6 to all the data and tools that NTIA can offer to
7 help you achieve those objectives, and I'm very
8 committed working with Charla and Jennifer to
9 ensure that you can organize yourselves well,
10 performance research as you need to, and reach
11 conclusions and recommendations in a way that you
12 feel is appropriate and accurate.

13 So, I'll just conclude by saying welcome
14 again, I'm really looking forward to the work of
15 this committee over this term, and to receiving
16 your input, and thank you again for your service.
17 And back to you, Charles.

18 MR. COOPER: Thank you so much for those
19 remarks, Alan. As Alan mentioned, we are pleased
20 this cycle to continue what's becoming a
21 tradition, to have two Co-Chairs. And this year,
22 we even have one returning Co-Chair. Charla Rath

1 has served as a member of CSMAC since 2014 and was
2 Co- Chair last CSMAC cycle. Charla is an
3 independent consultant, who until 2019 was vice
4 president of Wireless Policy Development at
5 Verizon.

6 Our second Co-Chair is Jennifer Manner, who
7 became a CSMAC member in 2019. Jennifer is senior
8 vice president of regulatory affairs at Echostar
9 Hughes. On behalf of Commerce Secretary Armando,
10 Assistant Secretary Alan Davidson, all of us here
11 at NTIA, thank you to both of you for agreeing to
12 be CSMAC chairs, and also to the overall 28 CSMAC
13 members. And now, over to the Co-Chairs.

14 MS. RATH: Thank you very much, Charles.
15 I'm really happy to be returning, not only as a
16 CSMAC member, as a Co- Chair with Jennifer Manner,
17 and really looking forward to our first session.
18 Thank you too to Assistant Secretary Davidson for
19 your remarks. We obviously have our marching
20 orders, and we in particular, we really do
21 appreciate the support that has always been
22 incredible from NTIA, just in terms of, you know,

1 the staffing on our subcommittees, and the
2 professionalism of the people involved, so thank
3 you for that, and we really do appreciate it.

4 And you know, welcome to returning members,
5 and a special welcome to new members, and it's
6 actually great to see, you know, as always, that
7 NTIA manages to put together such an interesting
8 and diverse group of people. It does create some
9 interesting moments in subcommittees, and in full
10 committees. But that's what this is all about,
11 and we're very happy that you're all here, and
12 looking forward to kind of just moving forward
13 with the work.

14 As Assistant Secretary Davidson mentioned, we
15 have four topics that NTIA has asked us to address
16 this year -- this session, it's -- actually, will
17 be two years. And we'll be going through that in
18 more detail in not the next section, but the
19 session after that.

20 And, but just briefly again, we are going to
21 revisit the Spectrum Relocation Fund, as, you
22 know, some of you on this committee know, we've

1 actually -- we take a look at this every few
2 years, because it's -- it is a very important and
3 a very challenging thing to be working on. And
4 so, I think we're looking forward to looking at
5 that. 6G and beyond, it goes without saying why
6 that's important. It's important for NTIA and the
7 government to get ahead of things, and I think
8 it'll be a lot of fun to see what comes out of
9 that, and I'm looking forward to it.

10 Electromagnetic compatibility improvements is
11 always an important thing that we look at, and
12 it's -- it's the type of thing, it's -- it's kind
13 of CSMAC's bread and butter, this type of work.
14 So, we're also looking forward to that. And then
15 Ultra-Wideband, which for some of us brings back,
16 you know, some memories of even a few decades ago,
17 will be, I think, interesting to start to reach
18 into that again to just see if there's some things
19 that we can recommend to help -- to help NTIA with
20 some of the issues that are arising as a result of
21 it.

22 So, with that I'm going to turn it over to my

1 Co- Chair, who will roll call to make sure you're
2 all here. So, Jennifer, it's all yours.

3 MS. MANNER: Thank you so much, Charla,
4 and -- and thank you, Assistant secretary
5 Davidson. We're super excited for the start of
6 CSMAC, and Charla and I look forward working with
7 our colleagues to make sure this is a very
8 successful effort on the part of all of us. So,
9 with that, the people who are going to make us
10 successful, I thought I would ask each of you to
11 briefly introduce yourself. Just to remind you,
12 we are on a tight timeframe, so I would ask you to
13 keep it under a minute please. But I'll start --
14 I'm going to go in alphabetical order, so Jennifer
15 Alvarez first. If she's here.

16 MS. ALVAREZ: Hi, everybody. I'm --
17 yes, I'm Jennifer Alvarez. Nice to be here. I'm
18 a new member. I have spent about 30 years as a
19 developer of systems that rely on Spectrum, and in
20 the past 5 years, gotten more into Spectrum
21 policy, so I'm looking forward to bringing my
22 experiences as a Spectrum user to play.

1 MS. MANNER: Thank you so much. Hilary
2 Cain, I don't know if you're on the phone?

3 MS. CAIN: Yeah, hi. Hilary Cain, vice
4 president for technology in the Alliance for
5 Automotive Innovation. I'm at the airport, so I
6 will be with you as long as I can, but we'll --
7 boarding a plane shortly, so, nice to see you all.

8 MS. MANNER: Have a good flight, and
9 thanks for joining us. Michael Calabrese, please.

10 MR. CALABRESE: Yes, hi. So, I'm,
11 relatively speaking, an old hand. I've been on
12 CSMAC since 2009, and I direct the wireless
13 feature project at New America. It's part of the
14 Open Technology Institute. New America's a
15 nonprofit thinktank in D.C., although I'm based in
16 the Bay Area now. I actually moved out here just
17 before the pandemic. So, I really look forward to
18 getting back to these great topics with you all.

19 MS. MANNER: Thank you. Tom Dombrowsky,
20 please.

21 MR. DOMBROWSKY: Hello, I'm Tom
22 Dombrowsky. I'm an engineer. I've been doing

1 this kind of stuff for about 35 years, and been on
2 CSMAC longer than I'd like to admit, but happy to
3 get engaged with everybody again and get going
4 again.

5 MS. MANNER: Thank you so much. Mark
6 Gibson, please.

7 MR. GIBSON: Hi everybody, I'm Mark
8 Gibson. I've been on CSMAC I think since 2010 or
9 2011, so it's nice to see my brethren, and a
10 former Co-Chair of CSMAC, I think I co- chaired
11 CSMAC before Jennifer -- Jennifer Warren and, not
12 Jennifer -- Charla did. My background has been
13 primarily in Spectrum sharing and Spectrum
14 management. I work for a company called
15 CommScope, which has a company called Comsearch as
16 part of it, and that's where I cut my teeth. So,
17 I'm really happy to get involved. These look like
18 really interesting topics, and good to be back.
19 Thanks.

20 MS. MANNER: Thank you so much. Dale
21 Hatfield, please.

22 MR. HATFIELD: Yes, I'm Dale Hatfield,

1 University of Colorado at Boulder. I go back, of
2 course, to the origins of CSMAC, as well. And I
3 just -- I actually started getting involved in
4 Spectrum in 1963, I -- and I'm -- you can do the
5 math. But anyway, I'm really looking forward to
6 working with you all, and with this interesting
7 set of topics.

8 MS. MANNER: Thank you, Dale. I'm
9 trying to figure out, which means you started when
10 you were one year old? So, we're happy to have
11 you join us. Carolyn, please? Khan.

12 MS. KAHN: Hi, I'm Carolyn Khan. I've
13 been working Spectrum issues for 25 years. My
14 expertise is economics policy, but touches across
15 a wide range of different Spectrum topics. So,
16 I'm a returning member, and look forward to
17 working on the great topics. Thanks.

18 MS. MANNER: Thanks, Carolyn. Paul
19 Margie, please?

20 MR. MARGIE: Hello, I'm Paul Margie.
21 I'm a lawyer and have been working on Spectrum
22 issues at -- on the hill and on the FCC, and as

1 part of the United Nations system, and I'm happy
2 to be here. I'm a new -- new member.

3 MS. MANNER: Thanks, Paul. Jennifer
4 McCarthy, please.

5 MS. MCCARTHY: Hi everyone, I'm Jennifer
6 McCarthy. I'm vice president of legal advocacy
7 for Federated Wireless. I'm one of the four
8 Jennifers, I believe, on this committee, which is
9 fantastic, good to be in that great company.

10 I've been in the wireless telecom business for
11 about years now at a variety of companies,
12 including QualComm, and NextWave, and now
13 Federated Wireless, and I'm glad to see so many
14 familiar faces here, and look forward to working
15 with everyone on these exciting topics. Thanks
16 for having me.

17 MS. MANNER: Thank you, and as you know
18 they say, you can never have too many Jennifers.
19 And with that, Karl Nebbia, please.

20 MR. NEBBIA: My name's not Jennifer,
21 sorry. I'm Karl Nebbia. I was a former associate
22 administrator of the Office of Spectrum

1 Management, so, my hope in participating here will
2 be to offer that kind of perspective from the past
3 inside activity, and participation in the process.
4 Since retiring from NTIA, I've been continuing to work
5 as a Spectrum management and Spectrum regulatory
6 consultant through Alion Science, which has now
7 been bought out by Huntington Ingalls Industries. So,
8 that's who I officially work for.
9 So, anyway, looking forward to continue work with
10 folks that I've known for a long time.

11 MS. MANNER: All right, thank you Karl.

12 Louis Peraertz, please. And --

13 MR. PERAERTZ: Thanks, Jennifer.

14 MS. MANNER: Sorry --

15 MR. PERAERTZ: Excuse me, can you hear
16 me okay?

17 MS. MANNER: I -- I can, I was just -- I
18 noticed Charla had her hand up.

19 MR. PERAERTZ: Okay.

20 MS. MANNER: So, Charla, did you need
21 the floor?

22 MS. RATH: No. Sorry, Jennifer.

1 MS. MANNER: No, okay. Okay, sorry
2 Louis, I was just hoping it was something
3 important. So, please go ahead, I apologize.

4 MR. PERAERTZ: Okay. No, no, that's all
5 right. And thanks again Jennifer. And my name is
6 Louis Peraertz, I'm the vice president of policy
7 for WISPA, Wireless Internet Service Providers
8 Association. As many of the folks on this
9 committee known, prior to this I was -- I worked
10 for many years at the FCC and was a wireless
11 advisor to FCC former commissioner Migon
12 Clyburn. I'm -- I've heard an awful lot about the
13 tremendous work that this committee does, and I'm
14 thrilled to be a part of it. Thank you.

15 MS. MANNER: Thank you. And Danielle
16 Piñeres, please?

17 MS. PIÑERES: Hi, everyone. My name is
18 Danielle Piñeres. I'm VP of Regulatory Affairs
19 and Compliance at Planet Labs PBC, which is a
20 satellite manufacturing operator for Earth
21 observation imagery. I've been working on
22 wireless Spectrum issues for the past decade or

1 so, and I've heard a lot about CSMAC. I'm really
2 pleased to join all of you as a new member, and
3 look forward to working on these issues.

4 MS. MANNER: Thank you. Glenn Reynolds,
5 please.

6 MR. REYNOLDS: Jennifer, thanks. Glenn
7 Reynolds from ATIS, the Alliance for
8 Telecommunications Informations -- Industry
9 Solutions, and its latest initiative, which is the
10 Next G Alliance, focused on North American
11 leadership in 6G. In one of my previous roles as
12 chief of staff of NTIA, I was on the receiving end
13 of the, you know, tremendously valuable work that
14 this group does, and I'm excited to be part of it.

15 MS. MANNER: Thank you so much. Dennis
16 Roberson, please.

17 MR. ROBERSON: Hey all, good to be with
18 you. I'm the president CEO of Roberson and
19 Associates, some name association that goes with
20 that, and I have been involved with
21 Spectrum-related activities for a relatively short
22 time, in fact sort of the midpoint of my career 25

1 years ago, and -- not nearly as long as Dale, of
2 course, but beginning to have a good history.

3 And I've been part of CSMAC for a decade now
4 or a little more, and very much enjoy the
5 activities involved, and hopefully was able to
6 provide some level of contribution. And I'm
7 looking forward very much to the activities of
8 this round of CSMAC, and in particular partnering
9 with Paul Margie and undertaking the UWB questions
10 for the committee. So, good to be with you.

11 MS. MANNER: Thanks, Dennis. Andrew
12 Roy, please.

13 MR. ROY: Thank you. I'm Andrew Roy,
14 I'm an RF engineer with 20 years' experience in
15 aviation RF systems, particularly Spectrum,
16 started with the military and now the civilian
17 world. This is my third time on CSMAC, and I'm
18 very much looking forward to working with both the
19 existing and new members on the activities we've
20 got planned for us. Thank you.

21 MS. MANNER: Thank you so much. Jesse
22 Russell, please.

1 MR. RUSSELL: Hi, Jennifer. Thank you.
2 I'm currently chairman of incNetworks, chairman
3 and CEO of incNetworks technologies. Been in the
4 business for about 40 years, and I have been, I
5 guess dubious distinction of starting the concept
6 of Gs. We're responsible for the development of
7 digital cellular communications, small cell
8 technology, and currently focus more on 6G,
9 Spectrum technology, and fractal networks.

10 MS. MANNER: Thank you so much. Steve
11 Sharkey, please.

12 MR. SHARKEY: Hi, Steve Sharkey. I'm
13 vice president in engineering technology policy at
14 T-Mobile. I'm also a long-term or long-time CSMAC
15 member, so, pleased to be back. I've been doing
16 Spectrum policy work for something over 30 years,
17 and a couple of companies in the government as
18 well at the FCC. Thank you.

19 MS. MANNER: Thank you so much. Mariam
20 Sorond, please.

21 MS. SOROND: Thank you, Jennifer. Hello
22 everyone, I'm Mariam Sorond. I've been a member

1 of CSMAC since 2014. Currently I am the CTO for
2 the service provider and edge business unit at
3 VMware. I joined in April, sort of consistent
4 with where the puck is going. But my background
5 is primarily in the Telco cable satellite, most
6 recent positions was chief R&D officer at Cable
7 Labs, and chief wireless architect at Dish. I
8 have been working on Spectrum technology, sort of,
9 topics for 27 years. Great to see some of the
10 familiar faces. Welcome to all the new members.
11 Looking forward to this.

12 MS. MANNER: Thanks, Mariam. New name
13 for me. Rikin Thakker, please. Welcome.

14 MR. THAKKER: Thanks, Jennifer. Hey
15 everyone. This is Rikin Thakker. I'm the chief
16 technology officer for the Wireless Infrastructure
17 Association, WIA, also faculty member at the ECE
18 Department at the University of Maryland, where
19 I've been teaching for the Master's in
20 Telecommunications Program. I'm very honored by
21 this opportunity to start on this prestigious
22 committee. This is my first time, but I am

1 somewhat familiar with the structure, as I've
2 followed many of you, and CSMAC, since my PhD
3 days, and many of you actually advised me during
4 that time, that was ten years ago. I see many
5 familiar faces, so I'm looking forward to working
6 with you all.

7 I am also currently serving on the
8 Technological Advisory Council with Jennifer at
9 the FCC, and at TAC I'm on the 6G working group
10 where we talk about 6G advancements, use cases,
11 Spectrum, and standard development parts.

12 And prior to FCC's TAC, I was serving FCC's
13 BDAC, Broadband Deployment Advisory Committee, and
14 co-chaired the job skills training opportunity
15 working group. Really looking forward to working
16 with you all.

17 MS. MANNER: Thank you so much. Bryan
18 Tramont, please.

19 MR. TRAMONT: Yes, Ms. Manner. I'm
20 Bryan Tramont, I'm the managing partner at
21 Wilkinson Barker Knauer. Previous to that, I
22 served at the FCC for a number of years. This --

1 I've been on CSMAC since, I think, it was
2 originally chartered, and I did a spin as chair,
3 so good luck to Charla and Jennifer, it's a great
4 gig, and I'm looking forward to working with all
5 the new members and the new team at NTIA. Thank
6 you.

7 MS. MANNER: Thanks, Bryan. Jennifer
8 Warren, please.

9 MS. WARREN: Hi, I'm a returning member,
10 and I had the privilege of chairing the last cycle
11 with Charla. I'm looking forward to -- to this
12 cycle, and the topics that have been presented.
13 My expertise is policies, domestic and
14 international, and I bring both an aerospace &
15 defense and FCC background. Thank you.

16 MS. MANNER: Thank you. We have Bob
17 Weller, but I think he couldn't make the meeting.
18 But I did want to at least mention that he is a
19 member. And next, of course, is Patrick Welsh,
20 please. Patrick.

21 MR. WELSH: Hi, I'm Patrick Welsh. I'm
22 a vice president of federal regulatory and legal

1 affairs at Verizon. I've been in the wireless
2 industry for 25 years, with a focus on technology
3 and Spectrum policy. I'm new to CSMAC this year,
4 but I see a lot of familiar faces, and I'm looking
5 forward to working with you and some of the new
6 faces.

7 MS. MANNER: Thank you. And last but
8 certainly not least, David Wright, please?

9 MR. WRIGHT: Yeah, thank you Jennifer.
10 So, yeah. Batting cleanup, I'll just say I see a
11 lot of familiar faces. I think Patrick and Rikin
12 both noted that. So, I am a new member. Very
13 much looking forward to serving with you all.
14 I've been in the telecom space for about 30 years.
15 I'm currently the president of the OnGo Alliance,
16 formerly the CBRS Alliance, so I've worked closely
17 with NTIA over the last, oh goodness, I guess
18 decade now, you know, getting CBRS commercialized.
19 And then, my paying job is with Hewlett- Packard
20 Enterprise, where I head up our global wireless
21 policy initiatives. And we have interests in
22 licensed, unlicensed, and shared Spectrum. So,

1 very much looking forward to working with all of
2 you.

3 MS. MANNER: Thank you, David, and --
4 I'm hearing an echo -- and thanks to all of you.
5 We're very much looking forward to working with
6 everyone. And with that, Charles, I'll turn the
7 floor back over to you, please.

8 MR. COOPER: All right, thank you
9 Jennifer, and appreciate the roll call. It's
10 going to be exciting, an exciting cycle for sure.
11 But since we haven't met for over a year, due to
12 the time involved in rechartering and recruiting a
13 new CSMAC, I'd like to briefly review where we are
14 in the evolution of the Spectrum issues before us.

15 Over the past few years, a total of 533
16 megahertz of Spectrum has been made available in
17 this critical mid-band range. Spectrum from 3450
18 to 3980 megahertz has been made available through
19 a combination of federal and nonfederal resources,
20 and through relocation and Spectrum sharing.
21 We're continuing to work with the commission and
22 other federal agencies to manage these

1 transitions, which involve Spectrum equities for
2 several agencies.

3 We continue to take a close look, in
4 conjunction of course with the commission and the
5 agencies, at what additional Spectrum resources
6 can be made available, all while maintaining the
7 federal agencies' access to Spectrum. They need
8 to complete their critical statutory missions.
9 The administration's current focus is on 3100 to
10 3450. As an initial step, the Department of
11 Defense is evaluating, pursuant to their
12 congressional directive and funding, the potential
13 to repurpose some or all of the band through
14 sharing. NTIA is then tasked to identify whether
15 the Spectrum can be made available. On a
16 technical side, we continue to focus on dynamic
17 Spectrum access, and how we can get best results
18 through efforts, like our concept of the Incumbent
19 Informing Capability.

20 Meanwhile, looking at the past cycle, the
21 CSMAC responses to those 30 questions have been
22 extremely helpful to NTIA. As Assistant Secretary

1 Davison noted, the Spectrum coordination
2 initiative we embarked on earlier this year
3 included a joint taskforce on the MOU we have
4 with the FCC. We are in the advanced stages of
5 reviewing and updating the MOU. I want to
6 highlight that CSMAC previously provided valuable
7 suggestions on how we may improve this MOU, which
8 NTIA took under advisement. We hope an updated
9 MOU will bring a strong vehicle for even closer
10 coordination with the commission, on a range of
11 policy and technical issues. We think it will
12 also embody some of the mutual values that we have
13 identified, such as the importance of
14 evidence-based policymaking, the need for greater
15 long-range planning, and a focus on more frequent
16 meetings with subsidive (sic) agendas, from the
17 staff level all the way up to the leadership
18 level. I hope the CSMAC members will recognize
19 their input in the new MOU, and in other elements
20 of the coordination initiative. I think that this
21 is a good example of how relevant CSMAC work can
22 be, and how quickly it can flow into policy

1 development.

2 In the previous term, CSMAC also addressed the
3 UAS Command and Control Requirements, and we
4 highlighted this important CSMAC work in
5 responding late last year to an FCC public notice
6 on UAS Spectrum.

7 Another CSMAC question was how NTIA's and the
8 FCC's equipment authorization rules could be
9 modified to require transmitter to use a unique
10 identifier as an aid to resolving interference
11 sources. The conclusion of that study group was
12 that a band-by-band or use case approach should be
13 used, rather than some broader mandate and an
14 equipment authorization rules. We are certainly
15 assessing this as we make our regular manual
16 updates.

17 And the final question from last term on the
18 feasibility of requesting information about future
19 Spectrum requirements and current usage from
20 industry and other nonfederal users, that will be
21 helpful to us as we craft a new Spectrum strategy.

22 Looking forward, as Assistant Secretary

1 Davison noted, we have found four new study
2 questions from the current CSMAC term. They are,
3 should there be additional improvements to the
4 Spectrum Relocation Fund? What is the potential
5 impact of 6G on government services? What
6 improvements could be there to increase
7 electromagnetic compatibility? And should there
8 be modifications to the Ultra-Wideband rules?
9 These questions cover a broad range of policy and
10 technical issues.

11 This CSMAC meeting will begin the process of
12 organizing the committee and addressing these
13 challenges. I and our team stand ready to engage
14 in the discussions and help in any way that we
15 can. As Assistant Secretary Davison noted, you
16 have access to all the resources and support you
17 need for your research.

18 I'm also like to take this opportunity to
19 welcome our new Designated Federal Officer to this
20 cycle, Antonio Richardson. Thank you, Antonio,
21 for being willing to take on this big
22 responsibility. I want to conclude by again

1 expressing my thanks and appreciation that you are
2 willing to take the time and attention to devote
3 to the effort to serving on CSMAC. It is the hard
4 work and dedication of yourselves and others who
5 preceded you that have made this membership on the
6 CSMAC an important and well-respected position
7 within the Spectrum community. I look forward to
8 working with you to add to that legacy. So now,
9 back over to our Co-Chairs, and I'm also happy to
10 take any questions from CSMAC members. Note, I'll
11 be available during the public comment period,
12 too. Thank you.

13 MS. RATH: And -- and Charles, this is
14 Charla. Just as a reminder to folks, if they do
15 have questions, you can just raise your hand, and
16 we'll call on you. Don't use the chat function
17 like we did the last time, for those of you who
18 are returning members. It's just purely raise
19 your hand. So, if anybody has any questions for
20 Charles now, just let us know.

21 Well, I think it -- I think it looks like
22 we're ready to move on to the next.

1 MS. MANNER: Yeah. So, thank you
2 Charla. I did want to just note one thing. I did
3 want to note that April Delaney, whose NTIA's
4 deputy assistant secretary, is on the call today
5 as well, and we're honored to have her join us as
6 well. She of course has a very long and
7 established career in Spectrum and
8 telecommunication. So, April, I just wanted to
9 recognize that you were on with us.

10 So, next on our agenda, we're going to
11 introduce our topics in more detail, and our
12 subcommittee Co-Chairs. And I -- as someone who
13 served last term as a subcommittee Co-Chair, these
14 people really deserve our thanks, because they
15 lead a really big effort, working with the members
16 of the CSMAC to end up creating the reports that,
17 of course -- and the recommendations that CSMAC
18 does release at the end of our term, or during our
19 term, it depends when different questions are
20 done. So, I wanted to thank them all in advance.
21 But I also want to encourage our members to please
22 get actively involved in each of the four subject

1 areas, because, of course, without that, we won't
2 be successful.

3 So, I'm going to turn it over to Charla to
4 introduce our first two subcommittee Co-Chair
5 groups. So, Charla, with that?

6 MR. RICHARDSON: Can I get -- can I ask
7 you guys to hold up a second? April, were you
8 trying to speak? I'm sorry.

9 MS. DELANEY: No, I just wanted to say,
10 I'm thrilled. I've -- it was great to see many
11 friends, old and new, and that this is really
12 important work, and I really am thrilled to -- and
13 I love to see Dale Hatfield, and I know he's been
14 going to where the puck has been going for a long
15 time. And so, it's thrilling to be here, and I
16 will just be listening in. I'm actually on the
17 road today, but I will be listening in the whole
18 way, and I'm just glad to see friends old and new,
19 and to work with all of you.

20 MR. RICHARDSON: Okay, thank you. I'm
21 sorry there, Charla and Jennifer. Over to you
22 guys.

1 MS. RATH: Oh, no. No apologies. Yeah,
2 no -- no apologies necessary. Just, as Jennifer
3 said, I'm going to introduce the first two
4 subcommittees. We -- for Spectrum Relocation
5 Fund, it is Mariam Sorond and Patrick Welsh, and I
6 think Patrick, you are going to speak first?

7 MR. WELSH: Sure, thank you Charla. So,
8 Mariam and I will be co-chairing the Spectrum
9 Relocation Fund working group. This is an issue
10 that's been near and dear to my heart since it was
11 enacted by the Commercial Spectrum Enhancement Act
12 in 2003. I've worked on both the AWS1 and AWS3
13 auctions, and partnered with federal agencies to
14 make sure that the transition was as smooth as
15 possible, and that they were fully compensated for
16 their work. This -- this Co-Chair will be
17 focusing on, how do we improve the SRF by
18 providing greater incentives to the agencies,
19 repurpose Spectrum for commercial use, both on
20 exclusive use or shared basis.

21 We'll be looking at a couple of issues, like
22 reimbursing agencies that are not currently

1 eligible for reimbursement, covering the long-term
2 cost for sharing, replenishing the fund, and
3 perhaps expanding some of the use, as well as
4 assessing some of the studies that were funded by
5 the Spectrum Pipeline Act in 2015, as well as
6 other improvements that the CSMAC members may
7 have. So, turn it over Mariam, the -- maybe talk
8 about the structure of the committee and the
9 timing of engagement. Mariam?

10 MS. SOROND: Yeah, thank you, Patrick.
11 I'm going to be really looking forward to working
12 with you. And just a note on this subcommittee is
13 that it -- the work will be staggered, so
14 basically when Subcommittee 4 finishes its work in
15 July -- in Spring of 2023, we will kick off
16 Subcommittee 1. So, for all of you who are eager
17 to see all the good work that's coming up, we're
18 going to have to wait until next year. But other
19 than that, look forward to -- to this work.

20 MS. RATH: Great. Thank you both. Any
21 questions for either of them right now? Anyone
22 want to volunteer to be on the subcommittee, even

1 in advance, that's fine. You can do that, just
2 send Antonio your names.

3 So, next we have the 6G and beyond, and the
4 Co- Chairs are Reza Arefi and Carolyn Khan, and
5 Carolyn is going to talk about how the committee
6 -- that subcommittee is going to move forward.

7 MS. KHAN: Great, thanks Charla. So,
8 Reza and I are -- we're looking forward to working
9 with all the new CSMAC members and also the
10 returning members on this important topic of 6G
11 and beyond. So, some background as provided by
12 NTIA, research and planning is well underway for
13 6G. 6G is expected to be the next major evolution
14 of commercial wireless technology, and as the
15 commercial -- as the U.S. interest in 5G -- the
16 interest for the U.S. to be the world leader in
17 5G, this is expected to only increase for 6G. So,
18 we want to get started early, and really work to
19 lay down the foundation for success for the U.S.
20 as a leader in 6G.

21 So, our question is that NTIA is seeking input
22 on 6G use cases. Importantly, NTIA would like

1 CSMAC to consider use cases beyond traditional
2 wireless communications, including safety, sensor,
3 radar, space, and other scientific applications,
4 and address 6G's potential impact on federal
5 government users.

6 When considering Spectrum bands that could be
7 used for 6G, NTIA has observed that terahertz
8 bands have been identified for potential use. So,
9 they would like to ask us, how would such use
10 impact government users in that range, and what
11 recommendations could be made to help prepare for
12 this, and are there other Spectrum bands that
13 might be appropriate for 6G and beyond use? So,
14 we will be kicking off shortly and getting started
15 with collecting contributions from the
16 subcommittee, potentially conducting interviews,
17 analyzing information, and iterating on that as a
18 group. So, really looking forward to that, and
19 yeah. Back over to you, Charla.

20 MS. RATH: Thanks, Carolyn. Any
21 questions for Carolyn at this point? And just as
22 a reminder, Mariam mentioned that the SRF

1 subcommittee isn't beginning until next year, but
2 all of the rest of the committees will actually be
3 forming and starting to have meetings after this
4 meeting. So, in any event, over to you, Jennifer,
5 for the following two subcommittees.

6 MS. MANNER: Thank you, but I just see,
7 Karl Nebbia raised his hand.

8 MS. RATH: Oh, he did. Okay, sorry
9 Karl. Sorry, I didn't mean to -- didn't mean to
10 miss you.

11 MR. NEBBIA: No problem. I just wanted
12 to be clear whether this group is going to focus
13 on government use of 6G, and therefore impacting
14 government capabilities, or talking about the
15 impact of commercial 6G on government operations,
16 particularly up in the terahertz area.

17 MS. RATH: So, that -- that's actually a
18 really good question, and I guess that is
19 something -- Carolyn, I don't know whether you've
20 had, you know, a chance to sort of think through
21 those (inaudible), but it also is a question that
22 we can, you know, go back to Charles, and sort of

1 talk to, you know, talk to NTIA about how they
2 want us to form a question.

3 Because, you know, I was viewing it primarily
4 as, you know, government, you know, government use
5 of these technologies, but in a way Karl,
6 government use of these technologies just
7 naturally sort of also overlaps with the potential
8 of the -- you know, using commercial technologies,
9 too. So, I think it might be hard to separate
10 them out, but I think that is something we can
11 talk to NTIA about for further guidance. And
12 Charles, I don't know whether you want to say
13 anything right now, or that would be something we
14 can, you know, take offline. And Carolyn, also,
15 if you've got anything to add to that.

16 MR. COOPER: Yep, so this is Charles.
17 We're making notes of this, and of course we're
18 going to have a, you know, besides our Designated
19 Federal Officer, we'll also have an NTIA
20 individual staff member assigned to each committee
21 as well that can take back questions that can come
22 back to NTIA. So, we're noting it, and appreciate

1 the question, Karl.

2 MS. RATH: Thank you. Any -- any other
3 questions for Carolyn, or others? All right.
4 Now, over to you, Jennifer.

5 MS. MANNER: Thanks so much, and I'm
6 pleased to introduce, right now we have one
7 Co-Chair, but we will have two Co-Chairs of the
8 Electromagnetic Compatibility Improvements. The
9 second chair we're still finalizing, but in the
10 meantime, I'd like to turn it over to Tom
11 Dombrowsky to perhaps give a little bit of thought
12 on this question.

13 MR. DOMBROWSKY: Does this mean I get to
14 talk twice as much, since I'm just one Co-Chair,
15 or does it --

16 MS. MANNER: No.

17 MR. DOMBROWSKY: Okay. So, my subgroup
18 is going to be located -- the Spectrum
19 environment, the fact that it's becoming more and
20 more congested. We have Spectrum sharing, and
21 there's greater and greater use of the Spectrum
22 across the board, so we really need to figure out

1 how we can improve EMC between, whether federal
2 and commercial, federal and federal, commercial
3 and commercial, et cetera, as all the folks at
4 home on this committee you're well aware, we've
5 had never-ending battles at the edge of services
6 between different parties, and I won't name names,
7 but everybody knows those names, and what issues.
8 In fact, we've actually had stuff making it into
9 the nightly news, which I didn't think would ever
10 happen in my career, so. Clearly this is sort of
11 a hot, hot issue. I think we have four issues at
12 least as a starting point that we were going to
13 address, since that's what's been tasked to us,
14 but I also welcome other ideas as we get the group
15 up and running, and hope to have broad
16 participation from everybody in the committee on
17 the group.

18 So, the first issue is really about radar, and
19 how radar and other systems can better coexist in
20 cochannel, non- cochannel areas. Folks that have
21 been involved in CBRS, or in the lower 3 gigahertz
22 efforts, where we had radars for the feds, and we

1 had the commercial interest in there. So, we've
2 done some work there and looking at that, so I'm
3 hoping we have some lessons learned and things
4 that we can do to improve the process going
5 forward, because I do think we have other bands,
6 1.3 gigahertz, even lower than the 3 gigahertz
7 bands, and some other places where we had radar
8 issues, that have coexistence issues coming
9 forward.

10 In addition, we have the second point, it's
11 statistical risk-based analysis techniques.
12 Because we're getting more congested in the
13 Spectrum realm, we can't just sort of say point A
14 to point B, let's look at the interference
15 analysis, do a link budget, when you figure out
16 real quickly. And instead, we're really needing
17 to look at more statistically based approach. The
18 FCC has started down that path, NTIA has done that
19 for years, but I think the question to the
20 committee is really to figure out, how can we
21 improve on that, how can we better use those
22 techniques? Especially when we're looking at

1 operational impacts to the federal systems. So, I
2 think that's a really important and a very timely
3 question as well.

4 In relationship to that, one of the inputs to
5 sort of looking at a statistical based analysis
6 is, propagation modelling. We keep pushing into
7 new and different bands, there's not a lot of
8 propagation models as we get into other bands and
9 other uses of bands that have never been modelled,
10 so I think from my perspective, you know, maybe
11 going on ITS. We're calling on other experts to
12 look at propagation models and how we can improve
13 and or increase different capabilities of
14 propagation models that can plugged into these
15 statistical based analysis, or other analysis.
16 This is a very big and important point, and just
17 as one example, so when we moved in the millimeter
18 wave for mobile, there was no propagation modeling
19 available there, because no one had really looked
20 at mobile use at millimeter waves. So, another
21 important and timely question.

22 And then the final one was, what role should

1 NTIA play for each of these interference
2 scenarios?

3 So, those are the four main points, and I'm
4 looking forward to working with everybody, and
5 again, I hope others will join in and help us to
6 look at these, because I think they're really
7 interesting questions. Back to you Jennifer.

8 MS. MANNER: Thanks so much, Tom. Thank
9 you. Does anyone have any questions for Tom? I
10 see Andrew Roy.

11 MR. ROY: Thanks, Jennifer. Sorry
12 Jennifer.

13 MS. MANNER: Oh, no, please go ahead.
14 And then I was going to say, Dale will go after
15 you.

16 MR. ROY: Okay. So, I did have a
17 question. So, government radar bands, obviously
18 we all think radars about the spinny heads
19 sometimes you see at airports on the ground, but
20 there's also the aeronautical, maritime, and even
21 space, and go down to HF and you go all the way up
22 to higher. So, are we looking at every single

1 possible option that there could be? It gives us
2 a lot of options, but also when you start talking
3 statistical analysis and propagation, it can be a
4 varied environment as well. So, I was curious if
5 there was thoughts on, is there going to be a
6 particular focus or aspect we're -- we're not
7 going to consider at this point?

8 MR. DOMBROWSKY: I mean, I'll go first,
9 and then I'll defer to NTIA on those too
10 (inaudible). From my perspective, I think the
11 work of the committee is to -- to raise these
12 questions, and sort of try and figure out how we
13 can manage it. I mean, usually when you have a
14 broad question like this, if you try and answer
15 every single possibility, you'll never get
16 anywhere. So, I think, from my perspective, we
17 have the question -- I think your question's a
18 valid one, and I think it's one we should discuss
19 in the subcommittee and see if there's a way to
20 narrow it in the most useful way. And I don't
21 know if Charles or Jennifer or Charla had other
22 thoughts on that.

1 MR. COOPER: Yeah, this is Charles. I'm
2 going to -- again, like we did with the 6G
3 question. I'm going to take this one back as
4 well, and again, we're going to have an NTIA staff
5 member assigned to this subcommittee as well that
6 can certainly help with -- with the questions.
7 Certainly, from an engineering perspective, I
8 appreciate it when it is scoped out, so I wouldn't
9 be surprised that if there are some bands that are
10 flagged of more interest than other bands. I
11 think that's a fair question.

12 MS. MANNER: Thank you. So, just moving
13 on. Dale Hatfield has a question, please. Dale.

14 MR. HATFIELD: Actually, it's more of a
15 comment. And my comment really applies to both
16 EMI and the 6G. And that is talking about
17 enforcement. I think it's very important that
18 very early on we talk about enforcement. Because
19 without enforcement -- without enforcement, rules
20 are valuable -- are not valuable, unless it can be
21 enforced. If they're not enforced, there's
22 essentially no rule. That leads to lawlessness,

1 and with the environment that we're living
2 in today with people who can try to do bad
3 things, I think it's awfully important that we
4 think about enforcement, including the detection,
5 identification, location, reporting, mediation,
6 and remediation of interference incidents. Thank
7 you.

8 MS. MANNER: Thank you, Dale. I think
9 those are wise words, and ones that certainly are
10 -- I'm sure, Co-Chairs will take to heart. Tom, I
11 don't know if you have anything else to add?

12 MS. RATH: Actually, it looks like
13 Jennifer has her hand up too.

14 MS. MANNER: I know -- I know, I was
15 going to Tom just as Co-Chair, just in case,
16 Charla.

17 MS. RATH: Yeah.

18 MS. MANNER: I was going to call on
19 Jennifer after that, if that's okay.

20 MR. DOMBROWSKY: Nothing to add for me,
21 and Dale and I have talked about enforcement for,
22 again, longer than I'd like to admit, so.

1 MS. MANNER: Okay, thank you. And then
2 now, of course, to Jennifer Warren, please.

3 MS. WARREN: Right, you now have to
4 differentiate which Jennifer, so, thank you.

5 MS. RATH: Good point.

6 MS. WARREN: So, I had my hand raised
7 before Dale's comment, but I want to second Dale's
8 comment, take the opportunity to do so about
9 enforcement. I couldn't agree with him more, so
10 I'm glad to hear that that will be part of the
11 discussion. But my comment goes back to Tom's
12 introduction of this item, and one of the issues,
13 or the first issue was radars, and connecting it
14 to the comments that Charles made in his opening
15 remarks about the process already in place for 3.1
16 to 3.45, and that there's a process in place that
17 then NTIA will look at. Can I assume from that
18 discussion, then, that part -- at least that band
19 is not part of this discussion, so that we're not
20 duplication resources and efforts with a process
21 that's already well underway? Thank you.

22 MS. MANNER: Thank you, and I look to

1 Charles on that. Charles?

2 MR. COOPER: Yeah, had again the usual
3 fumble for the mute key, here. So, thank you
4 Jennifer. Yep. I think, you know, in line with
5 the other -- other ones, we're going to take that
6 back. But it's certainly an interesting point and
7 a wise point you raise, Jennifer. Thank you.

8 MS. MANNER: Thank you so much. Mark
9 Gibson has his hand up next. Mark, please.

10 MR. GIBSON: Hi, yes. And I also note
11 that in previously CSMACs there were five marks.
12 So, now I think that I'm the only one now, so I'm
13 happy to pass the torch to the Jennifers.

14 But I guess I have a question that parses
15 maybe a little too much, so if we want to wait
16 until we get into the actual meetings that's fine.
17 But the first question says, how can radar and
18 other systems better coexist in cochannel and
19 non-cochannel relationships. And I presume that
20 means adjacent, whatever. But the -- so, it seems
21 the focus is on radar and other systems, as
22 opposed to other systems coexisting with radar.

1 So, am I reading too much into this? Is the focus
2 of this trying to make radar systems coexist
3 better, or other systems better coexist with
4 radar, or both?

5 MS. MANNER: So, I'm going to look --
6 I'm channeling Charles, if you can tell, but I
7 think he's probably going to say he's going to
8 take this back and we'll have someone who can dig
9 into this. So, I think at this point, we should
10 probably save these for the first meeting that Tom
11 and his mystery Co-Chair has, if that's okay.

12 MR GIBSON: All right. That's fine.

13 MS. MANNER: And then Dale, you needed
14 the floor again, please.

15 MR. HATFIELD: Oh.

16 MS. MANNER: Dale, we can't hear you,
17 you're on mute. Dale, we still can't hear you, I
18 think you're on mute.

19 MR. HATFIELD: I -- I think I put my
20 hand up by accident, which I profoundly apologize.

21 MS. MANNER: No worries about that. So,
22 unless there's any other questions, I'm going to

1 move onto the next subcommittee, which is
2 Ultra-Wideband. Our Co-Chairs there are Paul
3 Margie and Dennis Roberson, so I thank you both,
4 and I'll turn the floor over to Dennis, please.

5 MR. ROBERSON: Yes, so I'm happy to
6 introduce by far the most exciting question that
7 has been posed to the CSMAC. Obviously, we are
8 enthusiastic about it, and I say that a little
9 tongue-in-cheek, but not completely, because
10 Ultra- Wideband has been something of a neglected
11 technology, not studied by any organization that I
12 know of, as you most perhaps all know in our long
13 tenure with the TAC, and we certainly didn't ever
14 cover it there, and it's not been covered in CSMAC
15 in a decade either. So, I think it's really an
16 interesting topic to jump into. The concerns from
17 the write-up seem to be around the proliferation
18 of Ultra-Wideband and the waivers that are coming
19 in that may collectively cause damage to -- to
20 systems that are important to the government. We
21 would like to have -- as is so often the case with
22 others, we would like to have more clarification

1 on exactly what the concerns are, what
2 applications, what frequencies and the like. But
3 that will come, I'm sure, in due course. Because
4 Charles is going to take that back and get it
5 (Laughter) taken care of. Good smile, Charles.

6 That's the nature of the topic, the specifics
7 -- there are actually four specific questions, and
8 those relate to the potential modifications of the
9 UWB rules that would make it a more valuable and
10 viable technology.

11 Secondly, federal bands without the FCC
12 involvement that -- where we could make changes to
13 NTIA rules, independent of the FCC, and what those
14 might look like.

15 The third was minor potential changes that
16 could be explored in the areas of power limits,
17 definitions, and application categories, that
18 would have impact from an international standpoint
19 -- international harmonization standpoint. So,
20 that would be interesting.

21 And then finally, NTIA's modifications of
22 restrictions, or including new ones, that would

1 expand existing frequency bands.

2 So those were the four areas of focus for the
3 start, and I'm sure we'll evolve that as we get
4 into the discussions. I am -- I'm really pleased
5 to be co-chairing this with Paul Margie, because
6 he is a very hard worker. I -- we had an initial
7 meeting about the topic, and we've moved along to
8 establish direction, which he will talk about.
9 But I talked to him about pulling together a
10 general plan about what we ought to do, and what
11 he'd provided was an outline for our final
12 document. So, we already have the outline for the
13 three chapters with a dozen subsections that we
14 will be covering as a start out draft.

15 So, having someone that aggressive as your
16 partner is an absolute delight. And with that,
17 let me turn things over to Paul to take us home on
18 this topic.

19 MR. MARGIE: Thanks for that, and if,
20 partly that's because NTIA spooked me by saying
21 that we have to go first and get this draft, get
22 this document done before all the others, so I

1 think Dennis and my goal is to be really focused
2 here. It is a broad question, but I think we can
3 produce a document that is useful in the time
4 period that's given to us.

5 And so, I thought what I would do is just
6 describe some initial thoughts as to the kind of
7 work so that people can decide if they want to
8 join us, so you have some specificity in doing so.
9 I think we're going to need engineering technical
10 help as well as legal policy help to do a good job
11 for NTIA here to answer their four questions.

12 And so, I think, one, we're going to take a
13 look at the effect of a period of waivers, right.
14 We adopted these rules back when Bryan Tramont,
15 for goodness's sake, was on the 8th floor of the
16 FCC a long time ago. We haven't changed them
17 since then. There's been a long period of
18 waivers, especially since 2010. We have to stitch
19 those together and figure out what the real rules
20 on the ground are now from this kind of crazy
21 quilt of waivers to understand what the
22 environment is.

1 Number two, the expectations of what
2 Ultra-Wideband is and is useful for on the ground
3 now are very different than they were in 2001 and
4 2002, and the type of applications that are there
5 are very different. Back then, I think we were
6 looking at ground penetrating radar and kind of
7 wireless ethernet, you know, as the way that
8 Ultra-Wideband was going to be. Now we're seeing
9 location services and much more commercial
10 operations that are very, very different. So, we
11 want to have some invite in or some talks, some of
12 the Ultra-Wideband people to understand how those
13 changes have made, and I think it'll be a really
14 good opportunity to hear about those from the
15 people that are building them now so that we give
16 a recommendation that's based on the real world.

17 Third, and really critically is going to be
18 discussions with government users to understand
19 both government Ultra-Wideband use and the effect
20 of commercial Ultra-Wideband use on the government
21 because I really want to take it from what we've
22 been hearing from NTIA and DoD and other is about.

1 We have to look at this both as government as user
2 and government as neighbor. And so, we're going
3 to try to do both of those by talking to people.

4 There are going to be a consideration of legal
5 and policy users related to the NTIA question
6 about the relationship between what the FCC does
7 and what NTIA does. That's not an engineering
8 question, but that's a legal policy question to
9 try to figure out, do they have to do it in
10 tandem, you know, what's the relationship with
11 NTIA rules over commercial for when they are, when
12 their government bands are not. So, we've got
13 some interesting legal questions as well as
14 engineering.

15 So, and look, I think bottom line, the fact
16 that NTIA gave us as one of their four questions
17 that Ultra-Wideband was a concern, the fact that
18 it was chosen as one that they needed answered too
19 quickly, and the big increase in Ultra-Wideband
20 devices means that something is afoot at the
21 Circle K here on Ultra-Wideband. And so, I would
22 encourage you to join us. It hit so many bands,

1 too. I think it'll be a good experience. And as
2 I said, we're going to try to be really focused
3 and get this document out rapidly. Thanks.

4 MS. MANNER: Thank you, Paul, and
5 someone who worked with Bryan and Paul and
6 Ultra-Wideband just a couple of years ago, it has
7 a very long history, and I can second that, Paul
8 Margie. I'm used to make the other advisors look
9 pretty bad because he was a really hard worker,
10 and good, too, not just hard working.

11 So, with that, any questions for Paul and
12 Dennis? Okay. Well, I encourage everyone to sign
13 up and participate in the work in the
14 subcommittee. That work is so critical to our
15 success, and with that I'm going to turn it over
16 to Charla for the next part of our agenda.
17 Charla, please.

18 MS. RATH: Great. Thanks, Jennifer.
19 And I just have to say though that Paul you should
20 actually be writing the PR for all the
21 subcommittees because you made me want to join it
22 so excellent, excellent. I think you all need to

1 take some lessons from that in terms of getting
2 people to join your subcommittees.

3 In any event, I think before we move on to
4 public comment, I just want to make sure that
5 there aren't any questions from CSMAC members on
6 any of the subcommittees or anything you might
7 have forgotten to ask Charles before. And it does
8 look like we have a couple of questions. Tom,
9 you're first step, Tom Dombrowsky.

10 MR. DOMBROWSKY: Yeah, just wondering.
11 I know you asked us to sign up for the committees.
12 I didn't know as a Co-Chair wondering when we're
13 going to get our list of people that have signed
14 up so we could get rolling. I think that's the
15 question I had.

16 MS. RATH: Antonio, I think you're
17 working on that list, aren't you?

18 MR. RICHARDSON: Yes, that's correct. I
19 was hoping to have it out to you guys here this
20 afternoon here. Definitely you'll have it by
21 Monday who we have so far are, which groups. And
22 also again, hopefully I get a whole lot for Paul

1 here to join up really quick, but, yeah, so if you
2 guys would send me which groups you would like to
3 sign up with, I'd appreciate it. I've already
4 received about 10 or 12 emails or so, probably a
5 couple of more, but definitely by at least 10 or
6 12. So, hoping to, and if you want to go across
7 various groups, that's fine too. It could be a
8 lot of work though I have to admit, you know, and
9 I'm sure you all know that. But if you would,
10 please just send me a request, and now I'll get
11 the current list out to the co-chairs of who they
12 have right now signed up. Now, like I said, I'd
13 have that out by Monday at the latest.

14 MS. RATH: Yes, thanks, Antonio. And
15 just to sort of underscore Antonio's point, for
16 new members, you should consider, you know, more
17 than one, you know, want more than one
18 subcommittee but keep in mind that the
19 subcommittees do, you know, they meet frequently,
20 and but I would still urge you not to just limit
21 yourself to one, and, you know, it is also one of
22 the reasons why NTIA actually did stagger, you

1 know, two of the questions so that the workload
2 would be, you know, would be a little bit more
3 reasonable. But please do send Antonio your names
4 and hopefully they will be able to get started
5 pretty quickly.

6 Mark, I think you were next, Mark Gibson, and
7 I don't have to say Mark Gibson anymore. Great,
8 Mark, just Mark.

9 MR. GIBSON: Thank you. I wanted to go
10 back and ask a question about the SRF working
11 group or subcommittee. Is it fair gain to include
12 funding of NTIA activities necessary to port
13 support SRF? I know that that's not, it's not
14 covered in the Act. The Act covers only agencies
15 that have spectrum assignments that are subject to
16 being relocated. But it occurs to me that NTIA
17 does a whole lot of work to support the SRF
18 activities and a lot of us dealt with that, you
19 know, for AWS, for example.

20 So, I'm just wondering if it's, if that's
21 possible, too. I know it seems self-serving for
22 NTIA committee to, you know, go fund NTIA, but I

1 think that's something that's sort of lacking in
2 the Act. So, is that something that we can be
3 looking at in that discussion?

4 MR. WELSH: Yeah, Mark, this is Patrick.
5 Before Charles Johnson, because I know he will
6 have some thoughts on this, you know, as a coach
7 here I definitely think that should be on the
8 table, that's been one of the bottlenecks.

9 MR. GIBSON: Yes, good.

10 MR. WELSH: To, you know, getting the
11 most value out of the SRF. So, I hope that the
12 members can look at that and that way we don't
13 have to put Charles on the spot.

14 MR. GIBSON: I know, great.

15 MS. RATH: Next up, I think, Louis, you
16 have your hand up?

17 MR. PERAERTZ: Yeah, excuse me. And
18 Antonio, you will be getting at least one of my
19 subcommittees that I'd like to join this
20 afternoon. My question is, does it have to be
21 decided today? There's another subcommittee I'm
22 interested in, but I haven't quite, I might not be

1 able to give you that, you know, decision today.

2 Can this wait until next week or sometime?

3 MS. RATH: Yeah, I can answer that
4 question. Yes, absolutely.

5 MR. PERAERTZ: Okay. And then the last
6 question since this is the first time I've been
7 part of the CSMAC, but I'm part of other advisory
8 committees like one at the FCC and everybody does
9 things differently, I think. So, procedurally if
10 I have attendance issues, who should I be
11 contacting? Should I be sending an e-mail to all
12 36 people on this call or to just you and
13 Jennifer?

14 MS. RATH: Jennifer, me, and Antonio.

15 MR. PERAERTZ: Antonio.

16 MS. RATH: Yeah.

17 MR. PERAERTZ: Okay, got it. Thank you.

18 MS. RATH: And actually, I think one of
19 the things that we're probably going to talk to
20 NTIA about is actually, you know, you can never
21 schedule so that everybody can make a meeting, but
22 to talk about how to schedule, and at least, you

1 know, get some opportunity to hear who can or
2 can't make specific dates. But we can talk about
3 that offline.

4 MR. PERAERTZ: Okay, thank you.

5 MS. RATH: Karl, you have a question?

6 MR. NEBBIA: Yeah, I just wanted to be
7 clear. I understand that group, Working Group 1
8 is starting later, certainly after number 4, but I
9 wasn't clear on 2 and 3, when they were starting
10 and whether we could actually get each of the
11 co-chairs broken out a list of things that they
12 see it underneath these subjects that we could get
13 that and some sort of written form and then it
14 also calls Charles' clarifications on the
15 questions have been asked. That would certainly
16 help me determine which ones that I actually
17 wanted to sign up for. Thanks.

18 MS. RATH: Yeah, and just to answer the
19 first part of your question. Three of the
20 subcommittees are beginning immediately. The
21 Ultra-Wideband, which will be the first reporting
22 out there, NTIA would like to have a report out

1 within a year, 6G and beyond, and the electromatic
2 compatibility. The only one that's being delayed
3 and staggered is Spectrum Relocation fund to pick
4 up when, you know, approximately when UWB is
5 ending so that it just gives the numbers a little
6 bit more, you know, ability to participate in all
7 of the committees' subcommittees.

8 But, you know, second part of your question, I
9 will, you know, I think we can ask the
10 subcommittees, you know, how their subcommittee
11 co-chairs, how they're planning on handling it,
12 and also, I think, just, you know, to Charles,
13 too, for a little bit. Does anybody have any
14 thoughts on that?

15 MR. DOMBROWSKY: You know, jump in
16 without a hand raise, but I mean I think the
17 questions that were, that I went through, I think
18 you can share them with people, as far as I'm
19 concerned. I have no trouble with that being
20 shared, and frankly I thought they had been shared
21 so people had an idea what they were signing up
22 for.

1 MS. RATH: Yeah. no, the full questions.
2 And Karl, I don't know if you were asking
3 something different than the document that we sent
4 around a couple of days ago that has the full list
5 of questions on them. Actually, it was last week.

6 MR. NEBBIA: Yeah, I, to be honest with
7 you, I've not seen that document so.

8 MS. RATH: Okay. We'll send it around
9 again. I think it was either Wednesday or
10 Thursday of last week, and it's from me. So,
11 yeah, that actually answered, may answer your
12 question?

13 MR. NEBBIA: Hey.

14 MS. RATH: That's good.

15 MR. NEBBIA: I'll raise my hand up again
16 when all the work's done, so.

17 MS. RATH: Anything else before we move
18 on to public comment? Jennifer, anything from
19 you? All right, so we're now in the portion of
20 the meeting where the public who, you know, or are
21 dialed in have an opportunity to ask questions.
22 Antonio, I don't know if there is, is there a way

1 for you to manage that, or, you know, because I
2 can't see if someone wants to ask a question.

3 MR. RICHARDSON: Currently, yes, I am
4 managing that, and right now I don't see anything.
5 Actually, I would just ask if anyone from the
6 public wants to make a comment to go ahead on and
7 just start speaking, and we'll just recognize
8 them, but we ask that you identify yourself and
9 then go from there, please.

10 MS. RATH: Is there anything we need to
11 do to come off mute, or are they?

12 MR. RICHARDSON: No, I'm sorry, I said
13 that, they're not muted right now. Actually, it's
14 been pretty good. They've, we've had no problems
15 doing this and crossing my fingers now.

16 MS. RATH: Excellent, great.

17 MR. RICHARDSON: But I'm hoping we get
18 something here, maybe. If we don't, again, you
19 know, the public have an opportunity, they can
20 send questions to me at arichardson@ntia.gov, and
21 I will pass them on or something more to that
22 effect. But yeah, right now I'm not seeing any

1 movement out there, from the public that is.

2 MS. RATH: Okay, well, I think we should
3 move on and if somebody breaks through while
4 Jennifer is doing her closing remarks, we'll just,
5 we'll deal with that because I know sometimes it
6 can be a little bit cringy.

7 MR. RICHARDSON: Let, I'm sorry, let me
8 just do a check here, make sure everything is fine
9 there. If I could have Rich Orselak, please,
10 speak for a moment, I'd appreciate it. Rich
11 Orselak, do you hear me? Let's try one more.
12 Rebecca, can you hear me? Don't be afraid,
13 Rebecca. I won't say the last name. Wow, this is
14 unusual. I'm not feeling any movement or, and
15 anything right now.

16 MS. RATH: There's no need.

17 MR. SHARKEY: Hey, Tony.

18 MS. RATH: Yeah, there you go.

19 MR. SHARKEY: Tony, can you hear me?

20 MR. RICHARDSON: Yes.

21 MR. SHARKEY: This is Steve. I don't
22 know if this passes the test or not, but, you can

1 hear me and I can hear you.

2 MS. RATH: If you're on the phone, it
3 passes the test. Excellent Steve, thank you.

4 MR. RICHARDSON: Yeah, actually Steve
5 maybe in another way. I just got a text, someone
6 from the public is saying something, but we, we're
7 not hearing them. Give me a second to do a check
8 here to find out what might be happening here,
9 give me one second.

10 (Pause)

11 MR. RICHARDSON: Are you guys hearing me
12 on the phone?

13 SPEAKERS: Yes, yeah, yes, yeah, yes.

14 MR. RICHARDSON: We can hear each other,
15 we can't hear you.

16 MS. RATH: Actually, I could hear both,
17 we can hear each other, and I could hear you,
18 Antonio. Were you just calling in on the bridge?

19 (Pause)

20 MR. RATH: I can't hear you anymore.

21 MR. RICHARDSON: So, I've actually lost
22 everyone on the bridge here. I would actually

1 have to go back and connect. Not quite sure what
2 was going on there but let me try and do another
3 connection here really quick. You guys are
4 hearing me on the Teams, correct?

5 MS. RATH: Yes.

6 MR. RICHARDSON: Okay. about this guy.

7 MS. RATH: Sorry about this, guys. If
8 we can just wait a little patiently.

9 (Pause)

10 MS. RATH: Antonio, are you still there?

11 MR. COOPER: We can give it another
12 minute or so. I just saw another number pop in on
13 the Teams here.

14 MS. RATH: Okay. I was just going to
15 ask.

16 (Pause)

17 MR. RICHARDSON: Yeah, I'm not sure
18 what's going on here with Teams. This is, it's
19 not merging both calls though.

20 MR. KHLOPIN: Hey, Antonio, it's Derek.
21 But if they get back connected by a voice, would
22 one option be to offer your email address again

1 and they could.

2 MR. RICHARDSON: Okay, you might hear a
3 little bleed over for a minute. Did anyone hear
4 Christine?

5 MS. RATH: No. We only hear you,
6 Antonio. And there's a hand raised from
7 703-336-9247. I don't know who that is.

8 MR. RICHARDSON: Okay. It seems like no
9 one on the public side can hear. We can hear
10 them, however they can't hear us speaking here, so
11 I'm going to ask anyone from the public, if you
12 would please email me at arichardson, that's
13 A-R-I-C-H-A-R- D-S-O-N, at ntia.gov with your
14 questions and I will, and that way it will, we'll
15 get some type of response out to your questions
16 here and go from there.

17 Again, I just received a note, so again, the
18 email address is arichardson, that's
19 A-R-I-C-H-A-R-D-S-O-N, at ntia.gov. Also, if you
20 have a public notice, you'll see my email address
21 in there just in case, and you can, again email
22 me, and I will make sure that your questions are

1 answered from the committee. If you have a
2 question to a direct person, again, just let me
3 know and I will ensure that your question is
4 answered. And again, my apologies. I'm not quite
5 sure what happened here, but we'll get an answer
6 out for you guys. Thank you.

7 MS. RATH: Thanks, Antonio. Jennifer, I
8 think that means moving back to you to, for
9 closing remarks.

10 MS. MANNER: Thank you so much, Charla.
11 I did confirm I just got an e-mail from someone
12 confirming that they've been cut off so, just an
13 FYI. So, with that, I do want to say it's an
14 honor to be able to co-chair with Charla this
15 year's, on this term's CSMAC with such critical
16 spectrum policy issues that will help the
17 government as they start to move forward into the
18 future on critical spectrum issues. And more
19 importantly I'd say it's really an honor to be
20 able to work with the members of the CSMAC. I've
21 known many of you for a long time, and some of you
22 I'm just meeting today. I think we're going to

1 have some great conversations and discussions as
2 we work through these critical issues.

3 Finally, I'd like to thank Assistant Secretary
4 Davidson, Charles Cooper, Antonio Richardson,
5 April Delaney, Derek Khlopin, and the rest of the
6 NTIA staff for supporting the important work of
7 the committee, and we really look forward to
8 continuing our work this time and, of course,
9 working with my co-chair, Charla Rath. And so
10 with that, Charla, I wanted to turn it over to you
11 to see if you have anything else to add.

12 MS. RATH: No, I think that's it other
13 than I would love for somebody to actually add up
14 all the years of spectrum experience of all the
15 people on this call. It's really kind of amazing.
16 So, thank you all and looking forward to
17 subcommittee meetings and our next full committee
18 meeting. Thank you very much, and also just a
19 reminder, we all need to stay behind after the
20 meeting closes to have our ethics briefing. So,
21 Antonio, I guess it's over to you, we're
22 adjourned.

1 MR. RICHARDSON: Yes, thank you and that
2 will complete the CSMAC meeting for today and
3 again if those out there in the public can hear me
4 again, by all means please email me, and like I
5 said, we'll get answers for you, guys. And at
6 this time, we'll consider it adjourned and just
7 again, just to CSMAC members, please stay on. And
8 if I have Mr. Eli Sherlock, if you're on the call.

9 MR. SHERLOCK: I'm here, yeah.

10 MR. RICHARDSON: Okay, good. So, I'm
11 going to disconnect the public now and then you
12 can go ahead and start the ethics briefing.

13 MR. SHERLOCK: Okay. Just let me know
14 once you've disconnected the public. Antonio.

15 MR. RICHARDSON: Okay.

16 MR. SHERLOCK: This, yeah, at this
17 point.

18 MR. RICHARDSON: Okay. Go forward now.

19 MR. SHERLOCK: Okay. Hi, everyone. My
20 name is Eli Sherlock. I am an Ethics Attorney for
21 the Department of Commerce. As part of your
22 advisory or as a special government employee

1 advisory committees, you have been selected to
2 provide CSMAC and thus provide the Department of
3 Commerce overall with consensus advice based on
4 the personal expertise that you carry.

5 The concern with doing that is we want to make
6 sure that you do not inadvertently give any advice
7 that could lead to, you know, benefiting yourself
8 and so for that reason SGEs are considered partial
9 government employees for the purposes of the
10 ethics rules applicable to federal employees,
11 which means that some federal ethics rules are
12 going to be applicable to you as you move forward
13 in the enactment of the responsibilities of your
14 position. So, I'm going to take this time to go
15 over what those duties are. If anyone has a
16 question throughout, you can feel free to just
17 unmute yourself and ask away.

18 Okay. So, first off, as I'm sure you're all
19 aware, the financial conflicts of interest are
20 applicable to you. That's why you are responsible
21 for filling out F450s, which are financial
22 conflict of interest disclosures. The main rule

1 is that you cannot participate in any federal
2 matters, including by giving advice or
3 recommendations where you or your spouse, minor
4 child, partner, household members, or employers
5 have financial interest.

6 There are some exceptions to this general
7 rule, including situations where we're aware that
8 you have a financial conflict, and we grant a
9 waiver for you, but if that's the case for you, it
10 has to be done preemptively so we have to review
11 your conflict of interest, and then, you know,
12 make the determination that you're going to be
13 working on a particular matter involving a party
14 in which you might have a financial conflict or
15 financial interest and we'll create a waiver for
16 you.

17 So, yeah. Again, there are other exceptions.
18 The biggest example that I can give is that if
19 you're going to be giving, let's say consensus
20 advice about, you know, a contract with a specific
21 company, or you're saying, for instance, this
22 entity or this company provides the best services

1 in X-realm, we want to make sure that you don't
2 have a financial interest such as, you know, stock
3 holdings in the company that you're recommending
4 or endorsing at that point. So, like I said,
5 there are exceptions to that.

6 So one that I've already gone over is if the
7 conflict of interest is covered by a waiver. If
8 the conflict of interest stems from an investment
9 that you have through a diversified and
10 non-sector-specific mutual fund, mutual funds
11 never create conflicts. If you have
12 sector-specific mutual funds, but they're worth
13 under \$50,000, then you can still give advice on
14 whatever that industry is that's covered by that
15 sector's specific mutual fund. Publicly traded
16 stocks under \$15,000, those don't create conflicts
17 if you're advising on specific party matters,
18 which are matters that only affect one specific
19 company or entity, or if you're giving policy
20 advice that might affect an entire industry or a
21 group of companies, and you have interests in that
22 group of companies, but they are not more than

1 \$25,000, in any one company or \$50,000 overall.

2 Yeah.

3 Additionally, you are barred from using
4 insider information to make investment decisions,
5 which means that if you're aware, you know, if you
6 have non-public information or insider information
7 from, you know, from this position or from
8 information that you've obtained from your work
9 with FACA that's not public, you can't use that to
10 make investment decisions. All this should be
11 fairly straightforward.

12 Okay. Let's see, moving on, and again if
13 anyone has any questions, you can just feel free
14 to ask me. So, you want to avoid any situation
15 where it appears that you've lost your
16 impartiality in enacting the duties of your
17 position while working as a committee member. And
18 what that means is that not only can you or should
19 you not engage in outside activities that would
20 conflict with your, you know, duties or
21 responsibilities for this community, but you also
22 should try to avoid any situation where there's an

1 appearance that you are, you know, that you have
2 lost your impartiality or that you might be biased
3 and giving advice to this committee, you know,
4 about a matter that you might have a personal
5 stake in.

6 So, the general rule for this is you can't
7 participate in a matter where a person that you
8 have a covered relationship with is before the
9 government as a party and your participation would
10 cause a reasonable person to question your
11 impartiality.

12 So, you have a covered relationship with
13 either current or, you know, like potential
14 employers. So, people that you're seeking a
15 business relationship or employment-based
16 relationship with, people who employ your spouse
17 or your parents or dependent children, or clients
18 of your spouse, parents, or dependent children,
19 and recent employers and clients of up to one
20 year.

21 So that means that if you've worked for a
22 company within the last year, you shouldn't give

1 advice on that specific company. There is a big
2 exception for this if you're going to be giving
3 advice about a group of companies, and one of them
4 is your current employer. So again, if you guys
5 have any questions about that, you just reach out
6 to me or reach out to the ethics attorney assigned
7 to this committee, Jeffrey Harrington, who
8 unfortunately was not able to make it here.

9 Again, there is an exception also where we can
10 create a waiver if you are weighing in on a matter
11 where there might be a conflict created by our
12 relationship that you have with a party outside of
13 the federal government, but the determination is
14 made that your importance in assisting the federal
15 government in that specific case outweighs
16 appearance-based concerns.

17 Okay. Also while you're serving as an SGE,
18 you cannot be a registered lobbyist, you can't be
19 your registered foreign agent, and you can't
20 represent someone or be compensated from someone
21 else's representation before a federal agency or
22 court about a matter involving specific parties

1 that you participated as an SGE. Now that is
2 extremely unlikely to happen. In fact, it is more
3 than likely that you guys will not be working on
4 specific party matters which are federal matters
5 that only impact one specific company or entity.
6 Yeah.

7 So generally advisory committees give
8 consensus advice on broad policy matters. So,
9 when we're talking about matters that might impact
10 one to find company that rarely if ever occurs.
11 But you know, I'm telling you this just in case.

12 Let's see. So, for gifts, the general rule
13 for federal employees is, you may not accept the
14 gift offered from someone with matters before
15 commerce or who's offering you the gift based on
16 your federal position unless an exception applies.
17 And for the purposes of that rule, a gift is
18 anything that has value. Now in your specific
19 situation, there are a lot of exceptions that
20 apply, and there are a lot of people who might be
21 offering you gifts. And for the most part that's
22 fine. But if anyone offers you a gift or

1 something of value based on your position as an
2 SGE for CSMAC, you should reach out to ethics to
3 determine whether or not it would be acceptable or
4 permissible for you to accept.

5 Okay. And honestly, that about covers it.
6 The only other real rules that I would give to you
7 are, if you're given access to non-public
8 information which, for the purposes of the rule
9 that I'm about to say, I would just assume to be
10 any information that's given to you outside of the
11 public meetings, you should treat that as
12 non-public information. You shouldn't use that in
13 your personal capacity or for your own benefit.
14 Just hold that really close to your chest. Don't
15 do any, like don't use it unless you have explicit
16 permission outside the context of, you know, your
17 work as an SGE.

18 You also cannot use federal resources for
19 anything other than federal purposes, but for the
20 purposes of these rules, I don't really think that
21 you guys as SGEs are going to have access to a lot
22 of federal resources. So generally, we're talking

1 about things like, you know, a work computer, a
2 phone, email address, stuff like that. And I
3 don't believe that you guys have any of that. If
4 you've been given access to federal letterhead and
5 stuff like that, you should not be using that, and
6 you definitely should not use your title as a
7 committee member of CSMAC outside of the scope of
8 or the context of the work that you're performing
9 for CSMAC.

10 So basically, that means that when you're not
11 in meetings with CSMAC, you shouldn't be going
12 around making representations and saying that
13 you're, you know, making statements as a committee
14 member of CSMAC, if that makes sense. And I'm
15 saying that largely because we've gotten questions
16 before from community members who have been
17 contacted by journalists to ask about the work of
18 their committee and it's outside the scope of, you
19 know, it happens outside of their, you know, the
20 hours of their work on the committee.

21 If that happens, if you're asked the question,
22 you know, for whatever reason, by, you know, a

1 journalist or reporter, anything like that outside
2 of these committee meetings, and they're asking
3 you about the work of CSMAC or they're asking you
4 to, you know, provide input in your official
5 capacity as a committee member, I would try not to
6 answer that question and just give them the
7 contact information of your DFO, Antonio, and we
8 can figure out what to do from there. But that's
9 really important. You should not be giving
10 substantive input or speaking on behalf of the
11 Advisory Committee outside of your, you know,
12 Advisory Committee working hours.

13 And that about covers it. There are one or
14 two other ethics rules that apply, but they are
15 not very likely to come up, and my understanding
16 is you've all been given the SGE guidance that we
17 give to everyone, so you should be able to review
18 that and just look at all the rules that are
19 applicable.

20 If you have any questions, you can either ask
21 them now or you can feel free to reach out and ask
22 us at any time, you know, and we'll answer you as

1 promptly as we can. Yeah, and that about covers
2 it. Thanks so much for your time. If anyone has
3 any questions, you can feel free to ask now. If
4 not, we can move on.

5 MR. MARGIE: Hey, this is Paul Margie.
6 I'm, as I'm new, I just want to make sure I'm
7 understanding what you said correctly on a couple
8 things. One is, it sounds like we can still meet
9 with NTIA on behalf of our company or a client,
10 even if we're serving this year. That's right.

11 MR. SHERLOCK: Yeah, so you can as long
12 as it's not related at all to the work that you're
13 doing for this advisory committee. And it
14 doesn't, so, like, yeah, does that make sense?

15 MR. MARGIE: I think it does, but if
16 there's a topic like 6G, does that mean that none
17 of us could meet with NTIA on the topic of 6G?

18 MR. SHERLOCK: No, no, no, that's
19 broader. So, the technical restriction is that
20 you can't represent someone before a federal
21 agency about a specific party matter that you
22 participated in as an SGE. Specific party matters

1 are, it's a pretty tight legal definition. It's
2 basically matters that you worked on well in the
3 federal service that only affected one clearly
4 defined party. So, a good example that I would
5 give, and this doesn't really apply to your
6 committee, but, you know, if your agency was a
7 compliance enforcement agency and you are enacting
8 an enforcement action against a company, that
9 would be an example of a specific party matter
10 because it only touches that one entity.

11 For the most part, you know, if you guys are
12 working on 6G, you're working on a really, really
13 broad policy matter and so there's no restriction
14 against you representing your client before NTIA
15 about that. With that being said, you also
16 shouldn't be using any non-public information that
17 you have, you know, for your own benefit.

18 So, you know, putting that one specific legal
19 restriction aside, if you have information about,
20 you know, things like, if you have non-public
21 information about 6G, I would advise you against,
22 you know, contacting NTIA on behalf of your client

1 as a way of like monetizing on that, if that makes
2 sense.

3 MR. MARGIE: It does, very helpful. And
4 then just the other side of that coin is it sounds
5 like as long as we're giving generalized advice to
6 the advisory committee that's not company
7 specific, we don't need to seek a special, a
8 specific waiver for you if our company or one of
9 our clients has an interest in 6G, right? It's
10 only for company specific things.

11 MR. SHARKEY: Yeah, I mean, I would also
12 say we should try to cross that bridge when we get
13 there because it kind of depends on what the
14 situation is. So, for instance, if you guys were
15 involved in funding opportunities relating to 6G,
16 then that would be probably different. And there
17 won't be restrictions against your company going
18 before NTIA, but there would be restrictions
19 against you going before NTIA on behalf of your
20 company, worst case scenario. But yeah, that's
21 kind of a, it's a little bit more fact specific.
22 Alright, I see Jennifer has a question.

1 MS. WARREN: Thank you. This has been
2 helpful, and I wanted to kind of just follow up to
3 remind myself of this conversation. I know there
4 was a link in the emails that went out with our
5 financial disclosure certifications. The link
6 didn't work, but it was the link to the summary of
7 the ethics rules. Could a new link, at least, it
8 didn't when I opened it, tried to open it. Could
9 either an attachment go out with that or a resend
10 of the link because I would like to just on my own
11 time read those again in case I have further
12 question. Thank you.

13 MR. SHERLOCK: Yeah. So, what I'm going
14 to do is I'm going send Antonio, and I just sent
15 it to him. I sent him a link to the ethics rules
16 applicable to SGEs that's on our website at
17 commerce.gov, and he can circulate it to you guys
18 after this.

19 MS. WARREN: Perfect, thank you.

20 MR. SHERLOCK: Yep. And again,
21 generally, if what you guys are working on is
22 broad policy matters, so, you know, things that

1 aren't related to funding that are just kind of,
2 give me advice on the direction that you think,
3 you know, the U.S. needs to go down relating to
4 things like 6G. You know, that's such a broad
5 subject matter.

6 Generally there aren't a lot of ethics
7 restrictions that would actually apply to you.
8 The general ethics restrictions about, you know,
9 you being able to weigh in on federal matters or
10 you know there being an appearance that you might,
11 you know, be able to benefit personally or that
12 like a company that you have an interest in, might
13 benefit from the advice you're rendering. Those
14 are generally based on the presumption that you're
15 going to be rendering advice that is more narrowly
16 tailored so things that would affect a specific
17 industry or things that would affect a specific
18 set of companies, or just one company, stuff like
19 that.

20 If, you know, you're giving advice that could
21 affect the entirety of the U.S. economy, or, you
22 know, that doesn't really have much of an economic

1 effect, that's the type of stuff where financial
2 conflict of interest rules and relationship- based
3 conflict of interest rules would not apply. But
4 with that being said, you know, it's important to
5 at least know what those ethics rules are.

6 Okay, does anyone else have any questions for
7 me? Okay. Well, if not, if you have any
8 questions later on, you can either reach out to
9 Antonio or you can reach out to the ethics
10 division. We have an email address and a phone
11 number that's kind of a hotline. You also have an
12 assigned ethics attorney who unfortunately just
13 wasn't able to make it today. His name is Jeffrey
14 Harrington. Antonio has his contact information,
15 so, you know, if you have any questions, worst
16 case scenario, you can reach out to Antonio, and
17 he can reach out to us. But, you know, these are
18 just important rules to keep in mind as you move
19 forward. So, thank you all very much for your
20 time, and I hope you have a great day.

21 MR. RICHARDSON: All right, thanks Eli.
22 We appreciate that. I'm assuming there's no

1 further questions from any of the committee
2 members. And since I, oh, I thought someone had
3 raised their hand. I guess they put it down.
4 Anyway, that's it. I want to thank you all for
5 coming and again, Jennifer and Chara, thank you
6 for co-chairing this committee and that's all I
7 have. Does someone have something for me because
8 I'm a little frustrated right now. So, other than
9 that, that's it for me. Anyone? No one? You all
10 have a great weekend and look forward to emailing
11 you and getting those subcommittees you want to
12 work on, so thanks a lot and.

13 MR. PERAERTZ: Thanks for the support,
14 Antonio.

15 MS. RASH: Thanks, everybody.

16 MR. RICHARDSON: Thanks, everybody.

17 (Whereupon, at 3:00 p.m., the
18 MEETING was adjourned.)

19 I Charla Rath and Jennifer Manner do hereby certify
20 this transcript as Co-Chairs of the Commerce Spectrum
21 Management Advisory Committee.
22

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