SPRAGUE: Good morning, everybody. I'd like to call the meeting to order. Thanks for coming in this morning. At least we didn't have a major snowstorm here. I guess out in Sheriff Gerace's world, it's snowing pretty hard. Hopefully, he will keep it there and not send it our way; we'd greatly appreciate that.

So with that, I'd like to just go ahead and get started. Let's start with the roll call.

Board Members Present:

Michael Sprague
Brett Chellis
Charles White
David Kislowski
Joseph Gerace (by phone)
Marianne Buttenschon (by phone)
Richard Anderson
Brian LaFlure
John McBride
Rodney Delisle
Todd Murray (by phone)
William Bleyle
James Voutour (by phone)
Richard Tantalo (by phone)
Michael Volk
Allen Turner
Anthony Tripp
Dominic Dagostino (by phone)
Wes Jones
Ryan Greenberg

**Board Members Absent:**
Kimberly Beatty

**Guests:**
Matthew Delaney
Jay Kopstein
Joann Waidelich
Larissa Guedko
SPRAGUE: Thank you very much. The first thing I'd like to do is go for the approval of the minutes. Everybody receive their minutes? Any comments, corrections, deletions? (No response.)

SPRAGUE: If not, I'll entertain a motion to approve.

LAFLURE: So moved.

SPRAGUE: Motion to approve. Do I have a second?

JONES: Second.
SPRAGUE: Very good. Any further discussion?
(No response.)

SPRAGUE: All in favor.
(Affirmative responses.)

SPRAGUE: Anybody opposed?
(No response.)

SPRAGUE: Carried.

Let's see. How about approval of the agenda? Do I have a motion to approve the agenda?

LAFLURE: So moved.

SPRAGUE: Motion made. Second?

JONES: Second.

SPRAGUE: Any discussion?
(No response.)

SPRAGUE: All those in favor?
(Affirmative responses.)

SPRAGUE: Anybody opposed?
(No response.)

SPRAGUE: Carried. Okay. A couple of details. The emergency exits are labeled. If we have an emergency for some reason, we'll go out through the center, meet out here in the parking lot between the cars and keep the area clear in front of the building for responding apparatus and we'll do accountability out there.
If everybody would please put their phones on stun. We're all here because we're important people and we assume you could get some calls. Please feel free to take those out in the lobby. Restrooms are directly out across in the hallway. I think that's most of our etiquette and safety issues.

I want to review the ground rules for the board meeting. Board members attending by video conference shall constitute presence at such meeting for all purposes, including forum. Participants must make notice of their location pursuant to the Open Meetings Law. Guests or persons having relevant knowledge or information may attend and speak as part of the agenda upon acceptance of the meeting agenda by the Board. All other guests must be recognized by the Chair before addressing the Board and participating in discussion. If a board member is unable to attend in person or by video conference, his or her designee may attend the meeting and vote on behalf of the member unless they are an appointee not representing a state agency.

And just a quick reminder for anybody who is on the phone, please announce your name and your location before speaking to follow the Open Meetings Law.

PSAP, SICG and Targeted Grant. Larissa.

GUEDKO: This is our quarterly update for the grant program,
PSAP, SICG and Targeted Grant. This is the most recent spending on the grant program, mostly for the Statewide Interoperable Communications Grant. Those that you see in black were Round 1, 2 and PSAP Round 2, those programs have been closed. The rest are still open. Just recently, those starred items that you see here we have expanded the deadline.

There are various deadlines for each county and might vary on the grant period, but we did approve several extensions for projects that are still ongoing with counties.

This is the PSAP grant and, so far, there's been no spending on the most recent one, but the spending on this year program is going up. It's still not there. Hopefully, the vouchers will be submitted by the end of the year, especially since this program is not extendable. We do accept vouchers after the new year as long as the spending has happened during the project period.

Next year the RFA is anticipated in the program schedule. 2019 SICG formula RFA will be posted sometime in the June-July time frame and 2019 PSAP Operations Grant will be posted sometime in the May-June time frame next year. We are anticipating announcements for the Phase 1 of the Targeted Grant program. The announcements probably will happen, if not today, then by the end of the week most likely.
As of today, we have $450 million in grant and spending, excluding Targeted Grant program. And historical RFAs can be found on our website. We have organized it a bit. And if you have any questions about any of our programs, please contact our office.

Because there's still so many questions about the Targeted Grant program, I'll spend a little bit more time talking about how exactly -- what the process, how it's going to be happening, how we are awarding this grant funding.

So, this is just the appropriation of this. We have $65 million for the Targeted and Formula-Based Interoperability Grant and $10 million for PSAP Operations Grant.

As I said, Targeted Interoperability Grant, those are major goals that we're trying to accomplish with the program. We are implementing CALLing channels and TACTical channels on the county system. We do require monitoring, 24/7 monitoring, of CALLing channels. All CALLing channels must be implemented in direct simplex mode. This is important for New York State.

We are spending funding on backhaul enhancements. Since we understand for system to operate, we have to ensure that the system has a strong backhaul element.

This is continuation of the same goals that you saw in the previous slide. There's no secondary importance to those,
but this is more as an extension of the primary goals. And this is implementation of TACTical channels. And these will be monitoring and making sure that the private units also have interoperability channels programmed. The governance, once you implement all those CALLing channels, TACTical channels in the system, once you program your subscriber equipment, you might have to change your procedures, you might have to change your TICPs and, most definitely, MOUs with neighboring counties. And of course, all these new assets that you have implemented in the system, now, have to be input into CASM. This is components which are mandatory components of all the Interoperability Formula Grant funding and also Targeted Grant funding.

What exactly is the process that we follow when we award Targeted Grant funding? First of all, there's a total this year of $65 million; $65 million available for counties under this program. The maximum award for each county is $6 million.

Now, the grant performance for this program is different from the formula or PSAP; it's four years from the very beginning. We understand that implementation of all those channels will take time. The infrastructure enhancement the county might have to do will take time. Building a tower is not like a
six-month project.
Now, we did have an RFA which is now closed. Almost all counties applied for that RFA and we are contacting counties directly to develop projects for the Targeted Grant program. The application process is completely different from what you saw on the formula program or the PSAP program, for that matter. Now, first of all, we have made an analysis based on 2017 SICG applications, and that was our base. Now, we are closing gaps for counties that have the least interoperability channels implemented on the system level. So those are counties where there is priority. We give you a call, we sit down with you and OIEC engineers will develop the project itself for this Targeted Grant program. We don't tell you what our requirements are and you don't tell us what exactly -- how you can support this project to accomplish the end result. The biggest difference is the development of projects takes place individually.
Do you have any questions on that?
(No response.)

GUEDKO: And that was all for me.

BLEYLE: Quick question, Larissa. For the elements of the Targeted Grant, other than the national interop channels, for example, backhaul is one of the items, how do you -- since none of those questions are asked on any of the other grant
applications, how do you determine that there's a need in a particular county for that?

GUEDKO: That's where the individual approach takes place. When we know, for example, a certain county does not have interoperability channels on the system, they make a phone call, we set up a meeting. And we ask all those questions whether backhaul is sufficient to implement additional base stations, because we are asking to implement all interop channel bands, which is VHS, UHS, 700 and 800. 700, we do give leeway, because not all counties can operate on 700, but we would confer. But in some counties, we decide whether it's possible for them or not.

In some cases, we see that the tower can't support this many equipment and that tells us we need to provide funding for tower improvement. In some counties, we saw that there was no connectivity to towers, actually, and the enhance part of the project to provide that connectivity. This is the direct conversation with the county, their engineers, their technicians, where we determine what exactly we need to do to accomplish those higher goals and that's how we determine it.

You're right, there is no questions in the RFA. All this information is developed during our meetings, multiple meetings.
BLEYLE: Do you foresee revisiting the Targeted program at any time soon? I know the goals have been the same pretty much for quite some time as far as, you know, the focus on the national interop channels. I know there are other needs for regional interoperability, for example, which improving regional capabilities is one of the target areas. Do you foresee any changes in the foreseeable future in that?

GUEDKO: The Targeted Grant program right now covers a multitude of goals that concern interoperability. Regional connectivity is one of those goals. So partially, in our conversation, we do request counties to let us know how they interoperate with their neighbors, whether there is connectivity between different counties, neighboring counties or even consortiums. And we do incorporate that into the project scope. We don't just leave it up to interoperability channel development. The picture is much, much bigger.

I'd say revisiting our goals, probably not in the near future, because we still need to do a lot of work to accomplish what we set.

BLEYLE: Okay.

GUEDKO: But expanding the scope, it is possible that some other goal will come into place.

BLEYLE: Are the awards publicly announced? I know I find
out through e-mails and things whereas I always get something from my county --

GUEDKO: I'll let Mike address that.

SPRAGUE: That's been a challenge. We anticipated an announcement yesterday, however, there were other issues that came up where the announcement didn't go out. Yesterday was the first time that they've asked us to actually reach out to the counties to notify them before the award went out and then it didn't go out. So that kind of tripped up.

It's supposed to be going this morning as far as I know, knock on wood, we hope to get it out, and I can revisit that.

A couple things I want to add to your question. This targeted grant; we have to keep in mind that this was part of the change from the competitive. When we went from competitive, we went to the formula-based to all counties and then targeted was part of that that was driven up. This is really the first round finally of targeted grants that we're going to be able to get out. And we're doing a round right now. We'll probably do another one about February-March time frame.

It's very labor-intensive, because we have to sit down with the counties and actually explain what the program is. It's nothing where somebody can just generate a budget, because
they don't understand the scope. It's very easy to put in a targeted or an interop base. The problem is do you have the tower to put it on, do you have the tower space, do you have the capability to get it, all the way back to the council and does the council have the capability? Those are the pieces and parts that we're trying to figure out and also, at the same time, then we take a step back and look at the counties around it and the consortium input to find out, okay, we don't want to put a tower on this side of the border and a tower on this side of the border. Is there a way to share that? And we've actually found that already in a couple of the grants that we're going to be awarding.

We're working through that first process and I would say once we get through the first process and we get it out there, we'll have some dialogue with the consortiums and in particular with the Chairs to kind of get some feedback as to where this has gone and where we need to go. We anticipate another $20 million being available to the pot that we already have for next year. We'll adjust it as we go. But the biggest thing I think is we really have to sit down and kind of work through the process. Once we explain it, then they can figure out at a county level what projects they're working on and how it fits, and then they come back
to us with some suggestions. We refine it, they put together a budget. And the awards we're going to be announcing very shortly are actually shovel-ready projects. Those are things that they're just waiting for that to come out and then move forward. Knowing that, we're trying not to fund anything that has to be developed over the winter. If we can get something going now, we can then hit it March time frame and that will be ready for springtime, because we have a limited construction season for New York.

GUEDKO: Another point that I wanted to touch. Even though you see that RFA is for $65 million, the Phase 1 announcement that you will see is going to be approximately for half of that. And the reason, as Mike explained, that we did not want to wait to develop all projects for all counties that we have on our list. We wanted to make sure that counties that are ready to start, they have the funding available to them.

JONES: Can a county apply for more than one funding cycle and/or combine those fundings?

GUEDKO: You mean for the targeted grant program?

JONES: Yes.

GUEDKO: Right now, there's no second RFA just yet. It will have to be developed and approved by Commissioner, by Governor's office, by our legal department. But I will
anticipate that if the county's already in the process of the project and the whole scope, for example, is covered, one thing.
But if, for example, the county's in the process of the project and there are two phases of the project and they are RFA only first phase, perhaps, they will be allowable under the second RFA as well to make sure that they complete that installation and whole project. But the RFA hasn't been developed yet.

JONES: Okay.

SPRAGUE: Any other questions?

(No response.)

SPRAGUE: Okay, very good. Thank you.

I'd like to welcome our Commissioner.

PARRINO: How are we doing? I came down to wish you a Merry Christmas and Happy Holidays. How is everybody doing? Everybody okay? Mike's taking care of you? Of course, he is. If you have any questions for me, don't ask me, ask Mike. It's all good. I just wanted to come down and say hello, wish everybody a great holiday, get through this. This is good stuff that Mike is trying to get out to you, so I hope you feel the same way. All right? Take care. Thank you.

SPRAGUE: We do have a new person to DHSES. Jennifer Wacha is now the Deputy Director for OEM, she comes to us from
Westchester. Do you want to introduce yourself a little bit?

WACHA: Sure. Jennifer Wacha. I spent 13 years with Westchester County, both with emergency management and then the Department of Emergency Services Leadership there. I'm really happy to be a part of the state and I know some of you and looking forward to getting to know more of you, and thank you.

SPRAGUE: And as long as we're going through personnel changes, I wasn't sure if he was going to stop down or not, but Commissioner Wisely, Deputy Commissioner Wisely, is actually leaving OEM. He will be done the end of the month and he's going somewhere else in the state to be determined. We have no idea where. Somewhere. But he will be leaving DHSES. So that's a big change. I know he was a big part of this group for quite a period of time. And communications, he's assured me, will stay an important part of his thought process as he moves forward.

Any other questions on the other discussion we just had? (No response.)

SPRAGUE: The Targeted Grant is going to be interesting. It's an evolving process and we're learning a little bit -- I'll explain a little bit of the award announcement.
I was very careful to try to keep the PSAP and the SICG grant announcements very separate so when it came to this, there wasn't a lot of confusion about didn't we just do that and having to go back through a whole big explanation process. We're learning as we go with this and bear with us.

Like Larissa said, this is kind of the first installment part of it. It just made more sense for us to get it out the door to people that needed it now than to wait and we'll continue to evolve it. But again, to your point, the connectivity within consortiums is a big piece of the puzzle that we're definitely trying to support.

We did get the request, just to add to that conversation, from the Adirondack consortium about a deficiency within their region and we're trying to address that from a separate pot of money altogether. So again, we're having these conversations with the consortiums and if the consortium comes up with a desperately needed piece, we're willing to consider it from a bunch of different directions, not specifically out of this.

Moving right along. 911 Advisory Committee. Sheriff Gerace, how is the snow out there?

GERACE: Got a couple feet, nothing big. And we'll get probably 250 by the end of the year if it goes as normal. The Committee has nothing new to report, we have not met.
I do need to, I guess, notify everybody that this will be my last meeting. I'll be retiring, not by choice, by election. So, you probably need to appoint somebody else to chair that committee.

SPRAGUE: Copy that. I was not aware. And we definitely have appreciated your long term on this committee and this Board. So hopefully, we will continue to hear from you.

GERACE: Well, that depends on where I land, but I appreciate everything everybody's doing and has done. It's been really intriguing and interesting. I would very much encourage members of the Board to keep their eyes on the 911 issues that we need to keep focused on. It's not all about radios. And I want to thank everybody for all the hard work they put into it and will continue to put into it, and I appreciate the opportunity to serve.

SPRAGUE: Very good, sir. Thank you.

GERACE: You're welcome.


CHELLIS: Thank you. I wanted to give a quarterly update for the Next Generation 911 Working Group. Staff is continuing to meet biweekly on conference calls and so on. The Working Group is really active.

There are some changes in the 911 program in staffing. It's been a priority of the Director and Commissioner to stand
up for the 911 program in the division and get us moving on Next Generation 911 and so forth.

So, they appointed me as the state 911 coordinator. It's the first time New York has had such an appointment. Thank you for that challenge, Director, and I intend to move forward on our mission as we laid it out.

We have also assigned me a full-time radio engineer position. Tyler Lemire started a few weeks ago with the office. He comes over from SUNY Albany, he's from state service over there. He has an emergency services background and communications background both in the military and in emergency services. He has been assigned full time to the 911 program. He's a quick learner. He's gung-ho. He's chomping at the bit. This week, he's away at a class. So hopefully, at the next meeting, you'll get a chance to meet him.

Other OIEC program staff, I've been assured, will be assisting us in the 911 program as needed. Larissa, Matt. Mark Balistreri, most of you know he's also in the same class as what Tyler is and Mark comes from 911 experience from Rensselaer County. So, all together, we have Phil and Joann, everybody as a team working together to put our heads together around this.

Other ways that we brought to the program some leverage, some
assistance in the program from the Federal Office of Communications. As you recall last month, we applied for the TA consultants to continue and we have been granted; Joel McCamley, requested that he come back, he has a lot of experience working with a number of states around the country on getting their programs moving forward in Next Gen. He recently just finished California in June and they freed him up to come back to New York and help us.

Nancy Dzoba from the LaFayette Group as well has been working with us as a lead in that, in the TA consultants. We want to thank DHS OEC for that assistance. They've been working mostly on -- we had done some previous work with them on a draft State 911 Plan and they've been compiling all the edits the Working Group has done and producing an updated document that we could work from. The consultants as well as Mike, have been working on procuring a professional support services consulting group to come work with us as well to help supplement our staffing and our ability. We want them to work on the State 911 Plan development, completing that, Next Generation 911 Project Roadmap, an implementation framework for Next Gen and also provide project management and quality assurance to our program.

That has gone into the procurement stage. I can't really
announce it yet, because it's in approval and procurement process, but we are in that process of acquiring that.

The Working Group is continuing to work on the State Plan, as I reported. We also are planning a workshop in February where we bring the whole Working Group in. We felt that it would be much more productive versus conference calls; that we actually get bodies together and work. We're going to work with our consultants and our program staff and develop a real plan for the two days to make it as beneficial as possible.

Our real goal is to finish the State Plan by the end of the first quarter of next year, and that's our target, and we'd like to have that done and have the assistance of the working groups, make sure that all the stakeholders have input into the plan.

As I said, many times, we don't want this to be a state top-down thing. We want it to be the PSAPs working on the plan with us and developing what works for all the PSAPs in New York State and all the counties and regions. Therefore, everybody's got to be involved, stakeholders, the state agencies, counties, other PSAPs, New York City, everybody needs to be at the table. So far, so good on that but we need to keep the ball moving. We felt this workshop, and we'll do other ones if needed, to get the group together and
to work on this.

SPRAGUE: If I can just add to that. We're trying to lay out a timeline that provides as much feedback and interaction back and forth. Once we have the two-day session, at some point, we'll move on to more of a final draft and we'll actually bring people back in to go through that.
The goal is to actually be able to take that to the 911 Coordinators meeting in May to be able to have that all presented for their input, their feedback and discussion there as well.

We're trying to figure a way to get it out to as many of the folks that are actually part of the process as we can.

CHELLIS: Thank you. I attended a summit that California hosted on September 20th and 21st in Sacramento. It was very beneficial. They invited basically all the states' 911 administrators to come talk about NG911 for two days. They had a nice layout and a plan to go through the basic steps of implementing NG911; we could learn from each other and discuss things.

I was like a sponge the whole time, because we're early in the process compared to some of the other states like Washington, California, Utah, Iowa; some of the others are further down the road.

We were able to basically pick up an awful lot from them.
Took tons of notes. I'm actually doing a White Paper about it to make sure that's all documented so the Working Group can benefit from it and we're going to go over it point by point as we go. But a lot of lessons learned.

Just one off the top of my head was several of the states had discovered that when they RFP'd their ESInet, they didn't put in the RFP that that ESInet would be allowed to handle services other than actual 911 calls in terms of transfer and delivery of 911 calls. They wanted to add other services to that ESInet like CAD-to-CAD connectivity or things like that between their PSAPs. Their vendor said, "No, you can't put anything else on that ESInet. It's only for the phone service."

And they were like, "Well, wait a minute. We built this big enough for a reason."

So, they had this kind of back and forth thing. So, they said, you know, lesson learned, make sure that's all in the RFP and set forth in the contract what services will be able to be delivered to that and what it can be used for and how you're going to provide those and put the proper security and so on in place.

That's just one off the top of my head, but there's many of them down the road that we hope we can learn from so we don't hit the same challenge. We'll probably come up with other
challenges, I'm sure. We'll come up with our own. But mainly, again, just learning about what the key steps are and then hurdles and lessons so we benefit from that. They plan to continue that process. In attendance there, along with a number of the states, was the Chief Executive Officer of NENA, and representatives from the military talked about their involvement, how they want to work with the states with the military facilities within the states. They want to work under the state plans. They don't want to build their own world that's not compatible with the states they operate in. It's more important to them that their base is within a state and to be able to deliver and transfer calls within that state than it is to each other since they're states away from each other.

We actually have 13 military facilities still in New York State. I wasn't aware we had that many. The biggest one being in Fort Drum. They actually have a full PSAP up there, but we'll be working with them as well.

NENA is going to -- it was suggested they possibly pick up this process and continue having meetings either regionally or nationally to continue the dialogue.

I also attended the NASNA Interim Meeting in Kansas City. That's essential to state 911 administrators and provided
a report from New York State. It referred to the National 911 Program Office, a lot going on there, and from the FCC on their location accuracy studies and requirements for the wireless providers, what the wireless providers have reported back to them as the required mandated reporting, how accurate they feel about some of the independent testing going on.

Z axis. The wireless providers have said the most accurate right now is 15 meters. That's quite a distance. That would be like several floors. That's not going to tell you what floor somebody's on, so there's pushback on that. Also, the implementation of Kari's Law and the Ray Baum Act, which is the multiline telephone systems. They have to be able to directly dial 911 once that's totally implemented. And the Ray Baum Act has the provided location of where that phone is in the building.

So that FCC is actually open for comments right now on the whole implementation of that and that's due on December 10, and will go from there for NASNA in different states.

Federal 911 grant. We did apply for that on September 10th. It was estimated if all the states had applied and were certified as being eligible, New York would have received about $4.7 million in funding and with the 60/40 match, it looks like the project would have had to be around $8 million.
We did receive a denial notice on that. Basically, the reason was they stated that for the purposes of the federal 911 grant, they consider the New York surcharge a 911 fee and, therefore, due to the 40-some percent by statute that goes in the General Fund, they consider that a reason for denial.

They did deny our application and it's being reviewed, basically, for New York's response. I don't know when that's going to be. That's where we stand on the federal 911 grant. I believe that is all.

Any questions?

(No response.)

SPRAGUE: Jay.

KOPSTEIN: Good morning. First, with your permission, we have Mike Davis here. Mike is from Ulster County 911. He's also public safety member at large of SAFECOM. Mike.

DAVIS: Hi. Thank you, everybody, for allowing me to attend, I guess. I appreciate being here. Obviously, Jay mentioned, too, I've also recently been elected to the first vice president of the APCO chapter. APCO represents New York State and all New England and New Jersey. I'm here for that as well just to get information that I can provide to my members.

KOPSTEIN: As we move along, on the 16th of November, OEC
as we know it ceases to exist. OEC is now the Emergency Communications Division. It's no longer part of the National Protection and Programs Directorate. It falls under Cybersecurity and Infrastructure Security Agency. So apparently, it's been elevated within a different arm of DHS. The National Emergency Communications Plan, the first draft was just released to those of us who were involved in writing it for comments. The Communications Unit Task Force is having a major meeting next week at the NCSWIC SAFECOM meeting in Oklahoma. That's where we're looking to create a section chief level for communications and splitting into two branches, IT and communications.

In the first quarter of '19, we anticipate a model RFI/RFP program brochure coming out from SAFECOM and NCSWIC. In New York State, we're pretty good. There are other jurisdictions that need guidance and, hopefully, that model program will do it.

On October 30th, Region 2 FEMA along with the New York City ICC and other participants did a late biannual communications vehicle rally and that was held at the MetLife stadium. It was the first time we had FEMA co-hosting it and the next time we do it in two years first, hopefully, it won't be six months late and we'll be in the spring when it's warm. Secondly, improvements are always welcome.
We'll leave it at that.

SAFECOM and NCSWIC will be meeting the week of December 3rd in Norman, Oklahoma and, again, the week of April 22nd in Pittsburgh, Pennsylvania.

And last but not least, Senator Schumer has endorsed a T-band legislation to keep T-band from giving it back. It's good for two reasons. First, we've got another senator, a democratic senator, behind it. But more importantly, he's also endorsing it as the minority leader and that brings weight to it.

For those who don't know what T-band is, those of us in urban environments and the like across the country use it. It's the old UHF TV channels that have been converted to LMR usage.

And with that, I turn it back to you, sir.

**SPRAGUE:** Very good. Chris Tuttle, would you like to touch base on that piece for a second?

**TUTTLE:** Certainly. Really quick just to follow up on what Jay said. On November 16, the NPPD, or National Protection and Programs Directorate, ceased to exist and was changed to the Cybersecurity and Infrastructure Security Agency system. OEC used to be under CS&C, which is Cybersecurity and Communications, within NPPD.

What that means is it was always down to the bottom floor. Now, with the reorganization of NPDD becoming CISA, OEC has
become the Emergency Communications Division; it's actually elevated to a division level. 

So that's good. We have more visibility now for the Department. We don't have to go through multiple layers for personnel maneuvers or budget requests, things of that nature. So, we're at an elevated level, if you will, within the Department of Homeland Security.

CISA also is an operational agency, which provides more flexibility in the field, more opportunity to coordinate field courses. We see more synergy with the regional director for infrastructure of protection in the region along with comm security advisors and cybersecurity advisors. There's a lot of people in the field that are currently doing different types of work, but it can be coordinated better once we get started. So that will be coming up in the future as well.

OEC in name is gone, but we still are the same with a different name, Emergency Communications Division. I'm not going to go poof and disappear, I'll still be around, and technical assistance will still be around. OEC as you know it still remains, just within a different naming convention. I can't get rid of Jay and Jay can't get rid of me. If anyone has any questions, please feel free to see me afterwards and we'll talk about it further. Thank you.
KOPSTEIN: Mike, if I may.

SPRAGUE: Yes.

KOPSTEIN: Chris represents Region 2. There are two regions within the country, Region 2 being one of them, where the relationship between the local, state and the federal agencies have become very, very tight. When we have a major event in the flatlands, the agencies in Connecticut but, more importantly, New York City, Westchester and New Jersey combine their information with Chris, including the federal agencies that generally don't like to share.

The relationship is built to the point where Chris puts together or helps to put together a document that includes everything. And we're very, very lucky to have Chris in the region. Thank you.

SPRAGUE: I'll back that up and I'll take him out of the flatlands and say that he actually works up in the hill countries, too. He's been kind of instrumental in the CAN-US process. We just had a working group meeting here a few weeks ago, and they're going to have an in-person meeting in Detroit coming up March time frame.

He has helped kind of motivate a lot of us. We had that one in Erie County not long ago, and they now know we are very interested to the point where Dusty Rhodes has opened up an
invitation for the SWICs and other persons to attend that meeting on their dime. That tells me that we've had some impact with the CAN-US thing. We will definitely continue to push that.

So, between CAN-US and the work in the flatlands and stuff in the hilltop and working with some of the nations that we have out there, because I know he's met with them quite a bit. He's a very active member of our communications team.

WHITE: You can also add Puerto Rico and Virgin Islands.

SPRAGUE: Yes, that's true.

TUTTLE: I appreciate all the comments.

SPRAGUE: Just a couple things I want to add. Mark Balistreri has been very active with our COMU program. I just want to add a little bit to that. He's in an exercise design class this week, so he's going to be able to design some exercises.

We just went through a COMT class downstate out on the island. We've done some credentialing. But we're going to begin that process really in earnest this next year. It follows on the heels of what we've been doing with the COML process. So, the COML process, we're now up to 37 state-recognized COMLs. We've been having quarterly meetings with those guys to get them an understanding of where the process is going and getting their feedback as well.
There's been a lot of energy in that group. I've been very pleased with that. We've got another meeting scheduled for February 27th where we're going to do some more hands-on training. And they really seem to be grasping that and they want more. I'm really happy about that.

We're doing a train-the-trainer for March 19th through 21st, again, sponsored through part of our TA program. That hopefully will give us 13 trainers that we can then use across New York State. There may also be a movement to try to regionalize training with some of our neighboring states that already have instructors as well. We're really looking forward to the possibility of pulling that one off.

So just a quick update on where we're going with our COMU program. There's more, but I'm just doing a quick update.

Matt, you're up.

DELANEY: Good morning. Quick presentation today. Just a couple quick updates on the FirstNet front from the last time we met. We had a kickoff meeting last week with FirstNet/AT&T for discussing emergency management integration to emergency communications, ESF-2 and EOC planning.

FirstNet/AT&T are working with the State on developing an emergency management plan tailored to each state. Asset deployment and prioritization, restoration, ESF-2, EOC
staffing, on-demand devices. Basically, what they're looking to do is integrate into each state's structure and plan for response for an incident, whether it be planned or emergency.

They know they have and will have more public safety customers. So, when deployables are needed especially when you have a large incident where you may have a number of deployables needed, how to coordinate them at a state level versus maybe a local request, how to restore, where to prioritize, restoration, how to fit into the state ESF-2 structure, which is the emergency services function regarding communications, EOC staffing.

They have offered for each state to have someone available to sit at the EOC or ESF-2 desk to provide that directly, between FirstNet and AT&T and the network restoration for support and provide that directly to the state.

They know that each state will be different; some states may want somebody sitting there, and other states may not. Some states may want a different level of coordination or visibility in asset employment and prioritization.

So, we had a kickoff meeting. We're now going to work with them in their process to develop that plan for how we want it to function in New York State. Of course, it will evolve over time. As FirstNet evolves, as public safety evolves,
their use of FirstNet, that will evolve as well. But they really, I think, realized after the 2017 hurricane season that there's a lot of things that are unique to a public safety response that maybe didn't exist in their previous experience in the commercial world and the consumer response to restoring communications. And they really understand that. They really are putting quite a foot forward here. They're building a rather large group within AT&T to really work on this emergency management.

I don't know if any of you know Fred Scalera from New Jersey. He was the FirstNet state point of contact in New Jersey. He's now leading this effort for AT&T. He has a lot of experience. He's a public safety person. He's been a firefighter for many years. He's worked in emergency management. He's a good choice there.

The other thing I just want to mention, Public Safety Broadband Working Group, we're going to have a meeting in January for members. If you're a member of that group, stay tuned for an e-mail with the date and WebEx invite. It is open membership to public safety and government here in the State.

If you're not participating in the user group and -- okay, that should say user group, I apologize -- please let me know and we will add you to the invite list. That's all I had
for a quick update.

TUTTLE: Under the FirstNet into ESF-2 and state process, from a lesson learned in the Caribbean in 2017, and even in Florida recently, it's equally as important to have your other partners there, too. All the other commercial carriers have to be at the equal point, because as we all know, emergency communications start with someone picking up the phone and dialing 911. If they don't have the capability to do that, everything else is pointless. We had that in the Virgin Islands and in Puerto Rico where we had no capabilities for citizens to even start the emergency communications process. So, while I plug FirstNet coming in and working on the public safety side of the house, I would also, you know, really urge you to get the other partners from commercial carriers in as well to have the same dialogue and have one team. Don't look at one carrier over the other as more important.

DELANEY: Right. They're the ones who approached us and have looked to integrate. We are willing to talk to any of the carriers who come to us with that same approach.

ROWLEY: Mike, may I ask a question?

SPRAGUE: Yes.

ROWLEY: Along the same lines, I was going to ask a question. Does FirstNet/AT&T operate as a separate unit from AT&T
commercial? Because that is a big issue when we start staffing EOCs and ESF-2. The counties want representatives from each of the individual cell companies and the major telecom players. I'm just wondering: Do they differentiate themselves from AT&T in that regard?

DELANEY: Yes and no. There are components that are the same, you know, from a network side, it's the same. There is a different component from a sale perspective, from the emergency management perspective is a different group focused on the FirstNet component. I mean, certainly, behind the scenes and the network and stuff, that's the same group, because it's the same set of sites and the same network that function for both. But to your point, you know, I think that's something that we can plan in discussions with AT&T and FirstNet how that will integrate and how they will make sure that their staff, AT&T/FirstNet representatives here, that they're also communicating or acting for or do we need to have two people here, one for each set within AT&T.

ROWLEY: Yeah, because it gets very complicated and quickly when, you know, you start asking for resources. And I mean, even AT&T, as big as they are, there's only a certain amount of deployable assets. And who is going to get that priority and is FirstNet a separate entity?
DELANEY: Deployable assets, one thing in particular they have expressed to us that within their organization, they will prioritize FirstNet requests for assets over the general network requests for assets. But that one in particular -- and of course, it's a larger scale in terms of restoration and stuff, too.

ROWLEY: The last time we had a deployment, I mean, they're asking for assets and AT&T has four of these nationally. It's not like one of the bigger satellite deployables.

DELANEY: There's a lot more now. And in terms of FirstNet alone, the requirement was 72 deployable assets and part of our opting in New York was two of them to be located within New York State and not that they're the only two available. I mean, they can move the assets around the country. But they have told us based on what they've learned during the hurricane and other responses that within their company, assets will be prioritized on what FirstNet requires first for deployable assets. There's long-term restoration concerns, too, of how you coordinate those as well. Priority needs long term, where do you restore first or how do you restore?

TUTTLE: I have one follow-up question. In conversation with FirstNet, did they have any dialogue with you that they would -- if there's a town in New York that was a FirstNet
subscriber, would they deploy to that town without coordinating with the state?

DELANEY: That is something that's going to be discussed in the planning and develop. What each state, New York and every other state, wants the process to be in that state. Some states may want that coordination and some states may not want that coordination.

SPRAGUE: What I'm hoping out of this whole thing is that as AT&T becomes more involved with ESF-2, some of the other vendors will also become as active with that. The state has been moving to an ESF-2 function, but there's a lot of components that are needed to make that ESF-2 piece work. And I'm hoping that this is something that gives us that ability to move forward.

KISLOWSKI: I'm just wondering how it would be advantageous for ESF-2 to incorporate, introduce vendors into the actual ESF group?

Right now, the only vendor that I'm aware of that's in any ESF structure is ARC. I'm wondering if that doesn't open up a huge red box for introducing all these different vendors, whether it be from a telecommunications perspective or network or anything like that. It opens it up.

DELANEY: It does to a degree, and that's something that has to be considered. You know, where is there integration to
ESF-2 specifically? Are they a member and available too? Is there some sort of one level up type, so they're not part of ESF-2 but they're directly connected or available to ESF-2?

And then you have to look at vendor versus vendor service provider. Are you relying on a vendor for your communication and, therefore, they're a service provider and they need to have that integration because the operations depend on that particular operation?

So yes, that is something that has got to be worked out, I think. Over time, I think we'll see how that works. As you know, New York is still a fairly new ESF-2 structure and something we're transitioning to.

And I'm sure they're probably going to come up with some of the other ESF-2, not communications related about integration of vendors as well.

**Tuttle:** I'll just kind of throw this out there: If you want to do an ESF-2 working group, I'd be more than happy to be part of it with whoever else from the state. We can start to identify some of these challenges, these gaps, see what's worked and what hasn't worked in other states and apply it to the State of New York.

**Delaney:** I think that would be great. Mike, this goes back to your previous presentations on the communications
coordination as well.

**SPRAGUE:** Yes. The communications coordination group that was highlighted at our symposium from Texas is kind of a key component of that, because they actively enlist their vendors, their people that provide services as a part of this group that actually works directly with ESF-2. And it was very, very successful during their big flood and stuff they had down there.

That's a key component that I think we can learn from. They managed to somehow integrate it so that they were getting services. It wasn't sales. It was service supported. But they actively do it and they bring in all of their vendors as part of that process. That was the one incident that I can think of over the last 17 million years that I've been doing this, it's been a while, where the after action report did not list communications as the number one failure; it was the number one success when they did it, which was like, okay, tell us more, you know, we really need to know how you managed to pull that off.

The really cool part of this is, and I'm not really -- for what it's worth, but it puts some reality, I think, in the PSAP group that's working now with FirstNet, but the new PSAP chair is Todd Early who is the Director of Communications Emergency Management for Texas. He's got a really good
knowledge base to be able to try to direct some of the PSAP directions that is working on the FirstNet delivery of whatever they're doing. Maybe there's some reality that will filter in along with this. But I hear what you're saying.

KISLOWSKI: Yes, because I think right now, you can see New York State agencies only within ESF.

KOPSTEIN: If I may, Mike. Oftentimes, it depends on the type of incident and what's happening ancillary to the communications function. So, you may have your contract holders with you, AT&T, FirstNet, Verizon, if you want to go back, Nextel, people who actually contracted to your government agency. Then, you have that support function, if you will, which is tied to but not actually part of. For example, after 911 when you set up and you have a corner of the room where people and all they did was fix cellphones and radios, and another corner of the room with another group and all they did was charge and exchange out batteries. A hundred batteries came in, they're not holding charges, they're not working, well, here's a hundred batteries charged and put to work immediately. They were vendors, yes, but they were tied to somebody else and they were providing the function, that functionality.
And it really depends on the size and the number of operational periods in an incident. You may have 30,000 people and 15,000 radios, but you're having because of the event and you're working 12 on, 12 off, initially 16 on, 8 off, all of a sudden, you need to lay your hand on radios. So fortunately, now, we have the radio caches we can put hands on, but batteries are something else. Batteries have shelf life and sometimes you need somebody available that can just give you batteries and that works into the EOC process and kind of an umbilical cord to the ESF-2 function.

**SPRAGUE:** Very good. Okay, thank you. State Agency Working Group. Normally, we don't have an awful lot to report, but we have some stuff to report this time around. We've been kind of busy. Through the State Agency Working Group, we did a subgroup to kind of look at interagency communications and coordination within the state. We've had three conference calls in the process of doing that. And one of the things -- these are some of the different agencies and people involved in the meetings themselves. And I'm just going to do a quick review. But one of the things we're looking at is trying to come up with a way to better coordinate among state agencies when we are responding and kind of developing a process for that.
There are several different things we looked at. We came up with some sort of a short-term support. And one of the things that kind of got confused in the process is everybody is looking at an incident commander as being in charge of everything. Well, that's true to a point. But after a certain point, you know, whoever the incident commander is, which is probably somebody local, really doesn't know the operations of state agencies and some of the details that go along with that. So one of the things that's being spun out there is that we come up with someone who is kind of responsible, identified to be that state coordination person, that state lead, not the incident commander but a coordination person and how would we put that together.

So, that's one of the things that we're trying to come up with is a very, very simple process to make that happen. We took a basic 205, we put in a little bit of purpose, some operational deployment. You know, under most circumstances, State Police is the most identifiable person out there, because they're in uniform and so that person easily could be the person everybody's going to go to. So, one of the things we're trying to do is trying to identify that and come up with a way to assist that person, whoever gets kind of stuck with the ball, to be able to kind of work
their way through it and come up with a simple way for him
to know who's arriving on scene.
And part of this process is going to really push state
agencies to have to report in to somebody from a state
perspective when they show up. They're not necessarily
reporting to them because this is my job or you're going to
tell me what to do, but at least somebody from the state has
an idea of who all is involved in an incident.
So, we've worked on a sample document. The thought is we
laminate that thing and put some information on the back and
kind of work through it to make it a simple thing.
There's obviously going to have to be an educational
component and a training component to go along with it.
We've done some additional discussion back and forth. We've
looked at different assets and resources that are out there.
State Police right now are really considering using a
statewide channel and car channels through use of this, which
they're double checking their MOUs. And Chuck, I won't put
you on the spot, you've been doing a lot of work on this,
and I appreciate your help with it. We're just trying to
come up with a way that we can put this together.
The last meeting we had, we were basically talking about what
we're going to identify. State Police is coming up with a
map that is going to allow us to identify where they have
common CAD locations that could be used as coordination points.
We're going to identify and streamline some things to make sure our processes internally are better. And we've looked at some pieces of FCC regulations and state legislation and how that actually impacts this, opens the door for us.
We've revamped this form a little bit to put the main channel upfront, the coordination point right up front, and then anything else can be fill in the blanks behind this.
As of the last meeting we just had, Lieutenant Morris is working on developing a map for us, we're reviewing some other information that DEC and DOT have sent and we're going to put this thing together and then float it amongst the state agencies.
There's quite a bit of activity between the state agencies. Just the fact that we're talking about this and coordinating is a big plus. So that's it.
Anything you want to add to that, Chuck? You don't have to.
It's up to you.
WHITE: No, that was a very good summary, Mike. I think we are close to getting this pretty much nailed down. I look forward to being able to actually put information in the agency's hands so when something happens, they'll know where to contact and, from there, develop the response plan.
And to your point, logistics and knowing who's on scene and what their role and responsibility is early on is critical to, I think, establishing a cohesive response to any event. And then through our emergency management lieutenants and our county partners, those dialogues can commence and that's when we're going to be able to, I think, branch off into other channels to operate on. But the initial response for situational awareness and, obviously, the command and control early in the stage is our critical focus at this point in time.

SPRAGUE: Yes, there was actually one thing I wanted to -- the purpose of this -- and we've managed to get this assimilated, I guess, out into some of the state agency operations is that, the purpose of this guidance established state agency communication and coordination at the scene of a rapidly developing incident involving numerous state agencies, this is the key one: "Life safety is the number one priority during any emergency incident. Establishing effective coordination of deploying resources is key to eliminating duplication of efforts and miscommunication."

This thing is meant to fill that gap. What we've really been experiencing to some extent is the fact that the first few hours, everybody's out there doing whatever they're good at doing, but there's nobody out there
thinking about communications. It's kind of an afterthought for any of the folks that are in charge. And what we're trying to do is we're trying to say, okay, just tell somebody else to do communications. You guys do the thing you do, because we don't want you to stop rescuing people, but somebody needs to think communications early on, establish this.

What we're trying to do is put something together for the very first few hours until we can get somebody out there that can actually develop a communications plan. If we have an idea of who's out there and who's playing, it's going to make what we bring in and how we ramp up communications a lot more effective.

It's not going to be for any one of those fancy trucks out there, you know, we need help, then you get out there and it's like "What are you doing", and they have to do this research process. So that's what we're really trying to do. Any questions?

(No response.)

SPRAGUE: Matt.

DELANEY: Channel Naming Working Group. One thing that we are thinking about doing based on some events that happened over the summer is an encrypted interop channel. We're looking at 700 MHz specifically, because it's the only band,
of the national interop channels, where you can encrypt the TACTical channels. Because if you use encryption, the other bands have to be analog, which pretty much precludes encryption.

We're looking at potentially setting up a 700MHz interop channel. There are about 33 available. Certainly, there's a large number of channels and we don't have coordination issues and stuff. This would be relatively easy to pick one or two 700MHz national interoperability channels and turn them into an encrypted interoperability channel. The question is one or two. We thought about maybe two, one for law enforcement specific and another one, general public safety encrypted. But then how to handle the encryption. There's a couple ways we can do the key. We can standardize on a key, say this is the State encryption key for this encrypted interoperability channel. It's one way to do it. It's probably a little less secure, because you're probably not going to be rekeying that key very often, it will sort of be out there on a lot of radios.

But on the other hand, if you're looking at what's the purpose of the channel, maybe it's sufficient enough. There are federal keys that are available. There's a process for using federal encryption keys for interoperability. That has some complexities, too, regarding how to get those and
the actual loading them in the radios and stuff.
A third option is a key on a per event basis, so event interoperability. If everyone is going to be out there at the Baseball Hall of Fame, okay, radios are preprogrammed with the frequency, preprogrammed with the key ID as referenced and then somebody takes a key loader at that event and generates a key and loads it in each of those radios. You don't have to reprogram the radio, you just have to re-key the radio. So that's another thing we're thinking about.
We're going to take the list of members who have been previously involved in the Common Channel Naming Work Group and schedule a call and start discussing some of these.
I know there are some people who weren't on that who have been involved in encryption. We'll add them into the list.
If anyone in the room here in local or State government wants to be involved in that as well, let me know and we can add you to the list of membership. We really want to work through that issue and try to figure out the best way to do this with the goal of getting this together and drafted and formally published sometime in the spring, get it in before that, the summer events season which is where we find a lot of times these questions come up, large planned events.
Questions?
(No response.)
DELANEY: Thank you.

SPRAGUE: Okay. Citizen Alerting Committee. Just a couple things on that. One of the things I want to put out there, the public warning annex was finalized October 31st. That's been a draft. We had several months for commentary. Things went back and forth and that seems to have settled out at this point. That will be moved forward as far as the IMAP program is going to go -- the EMAP program, I should say, because that becomes a key part of that.

The other discussion that came up along with this is that this is the state's warning annex. The actual state plan, state EAS plan, is done by the broadcasters. The broadcasters now have to follow on with changes and make their adjustments that go along with that. That was talked about at the last meeting. That's one of the things that is high on the agenda of the TAC Committee moving forward is getting the broadcasters to update their program.

The other thing that's out there is the feasibility study for streaming EAS alerts. Just a little bit of a background. We've actually come together with a report on that working with DPS or Public Service Commission. Mike Rowley's team has been very active on this thing. We're actually looking at taking this report, which is in draft form, to the DPC on December 17th for it to be reviewed there.
and then I think it goes up from there. Mike, anything you want to add to this?

**ROWLEY:** No. Only that we're looking forward to getting more input on it and just general ideas on acceptance.

**SPRAGUE:** As we've kind of gone through this, we've discovered in talking with the IPAWS folks that really no other state is really talking about this. They are very interested in partnering with us. We have talked with New York City Alerting Group and they are very interested. So that's our suggestion. This is a very deep subject. You could put a huge amount of time into it and still not really have an answer. Because how do you originate it? How do you pick it up? How do you geo-reference it? There's so many different ways you can go.

The report basically is coming up with it is technically, probably feasible. This is an option that we can entertain. But our recommendation is we need to know how much time and effort and personnel that the state wants to focus on this going forward. That really, I think, is kind of where we're at.

**ROWLEY:** Yes. And the issue we always encounter with the vendors and with the providers, they're not going to -- not that they're not being helpful on it, but it's not really
a priority for them and it's something that they're in business for business purposes. You know, they'd rather sell you something that they have than add to the development part of it. It's out there, though.

SPRAGUE: Any questions?

(No response.)

SPRAGUE: Okay. New business. I'm going to pass it to Joann, because Joann has kind of laid out a list of dates possibly going forward for next year. You all have a calendar in your packet there.

WAIDELICH: There is a calendar for 2019 in your folder. I tried to spread them out so that we have the four quarterly meetings maybe every three months. Started out with the end of January, beginning of February and then March, May, July-August, October-November.

Any thoughts or do any of the highlighted dates look like they cause a major problem for anybody?

KOPSTEIN: Joann, just for information, I mentioned it earlier that the Director is probably not going to be in the state the week of the 22nd of April.

WAIDELICH: Right, and I do recall that. Let’s take a look at May 1st and maybe go with that one.

SPRAGUE: The only question I have, and I'm just going to throw it out there and see if anyone has discussion on it.
We have a long gap from May to October. Last year, it seemed like an awful long time between meetings. I know we're doing that so that we don't end up competing with summer events and that type of stuff.

Does that create any angst for anybody? I mean, literally, we go from one month to the next as far as a meeting goes.

WAIDELICH: Is it better to keep them three or four months or have that gap in the summer?

JONES: I think every three or four months. The end of the month works better personally.

SPRAGUE: Anybody else? January 30th, May 1st --

WAIDELICH: July 31st.

SPRAGUE: I got it.

GREENBERG: I have one conflict on January 30th but February 6th, I don't.

SPRAGUE: Anybody else? I'm good with the 6th if you want to do the 6th. Let's try February 6th then. Everybody good with the other dates?

ANDERSON: We've got one January 30th and then February 6th?

WAIDELICH: No, those are options. What we would do is hold one February 6th, May 1st, July 31st and October 30th.

GREENBERG: Just a suggestion. If you go straight down the middle column, February 6th, May 1st, August 7th, November 6th. I know it's a small thing, but October 30th, I have
a family at home and Halloween sometimes becomes important in that time.

**KOPSTEIN:** Halloween is the 31st, right?

**GREENBERG:** I know. That's just a suggestion. I can make either work. It doesn't matter.

**SPRAGUE:** I have a suggestion for the 6th of February, May 1st, August 7th and November 6th. Any issues with that?

(No response.)

**SPRAGUE:** Okay. Anybody against that?

**VOUTOUR:** It's Jim Voutour. Can you repeat them, please?

I just have a whole bunch of dates.

**SPRAGUE:** Sure, Sheriff. February 6th, May 1st, August 7th, November 6th.

(No response.)

**SPRAGUE:** Going once.

(No response.)

**SPRAGUE:** Going twice.

(No response.)

**SPRAGUE:** Sold. Okay. Let's give those a whirl.

Something will pop up tomorrow, I'm sure.

One other piece I have for new business. It goes back to something we heard earlier for the 911 Advisory Committee. I would like to canvas for a new chair and that can be somebody who's on the Board, it can be somebody who wants to pick up
that job.

I'll entertain that. If you have an interest, please let me know. I'd like to canvas and make a decision by the next Board meeting so we can move that forward.

Anything else for new business?

(No response.)

**SPRAGUE:** I really appreciate everybody coming and spending time today. We got quite a bit done. I really appreciate everybody out there.

Sheriff Gerace, I really appreciate everything you've done. Whether you make it back on another board meeting or not, we definitely recognize all the time and effort you've spent on that committee and the frustrations you've had on that committee, and I really am trying to move that process forward.

So, we appreciate all the effort you've put on that. Can we have a round of applause for the Sheriff?

(Applause.)

**SPRAGUE:** So, with that, can I have a motion to adjourn?

**MEMBER:** Moved.

**MEMBER:** Second.

**SPRAGUE:** Motion made and seconded. All in favor.

(Affirmative responses.)

**SPRAGUE:** Anybody opposed can stay. Thank you much.
CERTIFICATION

I, THERESA L. ARDIA, Shorthand Reporter and Notary Public within and for the State of New York, do hereby CERTIFY
that the foregoing record taken by me at the time and place noted in the heading hereof is a true and accurate transcript of same, to the best of my ability and belief.

Theresa L. Ardia
Theresa L. Ardia, CSR, RPR, RMR

Dated: December 1, 2018.