

PM “Ask Me Anything” Event

Welcome and Opening Remarks

The meeting officially opened with Mr. Adam Bouffard (the facilitator) explaining the purpose and format of the meeting. The purpose of the meeting was for the industry participants to ask Mr. Alan Rosner, the Electromagnetic Battle Management (EMBM) Program Manager (PM), questions pertaining to the potential EMBM acquisition. Participants were asked to type their question in the Teams “chat.” If a question was too long to capture in chat, participants were directed to use the Teams “raise hand” feature, which would be addressed on a first come, first serve basis. This was also applicable to the questions received in the chat box.

The format included a 45-minute question and answer (Q&A) session, where the PM or other Government staff would answer as many questions as possible during the session. It was stressed that the “Ask Me Anything” event was for market intelligence purposes only. The intent is to share information collaboratively between the Government and industry for possible future requirements.

Mr. Rosner thanked everyone for participating in the event. He highlighted that there was no guarantee this event would lead to a contract and reiterated that this event was part of market research to help guide the Government in terms of how it moves forward. However, the Government is quickly developing its EMBM strategy, and it is partially based on some of the input that industry has already provided as part of their response to the EMBM Request for Information (RFI).

Mr. Rosner recommended the participants avail themselves of the publicly released Electromagnetic Spectrum Superiority Strategy (https://media.defense.gov/2020/Oct/29/2002525927/-1/-1/0/ELECTROMAGNETIC_SPECTRUM_SUPERIORITY_STRATEGY.PDF). One of the key objectives of the strategy involves developing robust electromagnetic battle management capabilities and that is in part what is being talked about here today. In the publicly released version, it shows a picture of a warfighter looking at a terminal for the Electronic Warfare Planning Management Tool (EWPMT), which is slated to become part of EMBM for the joint solution. Mr. Rosner reminded participants that EWPMT is the Army solution, which is a different program from EMBM. Mr. Rosner referenced Objective 1.4 on page 9 of the Electromagnetic Spectrum Superiority Strategy document, which is focused on EMBM. He stated the other objectives are also key and there are a lot of other things that tie in, such as data, that are all part of that process. The importance of this issue to the department overall is evident, in that EMBM is a key part of the strategy that was presented. Mr. Rosner went on to say there are a couple of things to keep in mind. EMBM is a joint program; EMBM is not providing a Service-specific solution. The responsibility to provide specific solutions still rests with the Services. EMBM is

supporting combatant commands who have joint task force and joint electromagnetic spectrum operations cells. The objective is to do the following:

- 1) Understand what is going on inside the electromagnetic operational environment, and;
- 2) Ultimately present courses of action to the commanders there in that Joint Task Force (JTF), of what they can do.
 - a. What are the courses that they can take?
 - b. What do they have to control and potentially push out in terms of commands to the individual component commanders to ensure that we're moving towards spectrum superiority much like we've moved in the past towards air superiority?

Mr. Rosner stated that everyone is recognizing the importance of the electromagnetic spectrum in everything we do. It's really just another area where the Government has to focus and provide capabilities so that our warfighters can be well informed for the accomplishment of their mission.

Mr. Rosner concluded by informing the participants that this was their opportunity to ask him questions, although the Government may not be able answer all of them due to where we are in the acquisition process. However, it is the Government's intent to keep everyone informed. As such, some of the information collected as part of this market research process will be going back out through beta. Sam.gov as an update to the RFI posting.

At this point, the meeting was turned over for questions.

Q&A Session:

Q1: There are so many people that are dialed in and cannot get the Teams to work. Will you also be reading the questions out loud?

A1: Yes. In addition, the questions will be posted with the RFI. Once this session concludes, the information will be distilled, and we'll put the information out with the RFI so that all vendors will be able to take access it.

Q2: Will you be posting a draft RFP and specifications for any of the stuff going forward?

A2: The process we're looking at making use of is the Other Transaction Authority. That process is a little bit different. Ultimately, it gets down to some sort of RFP at some point, which might be posted in draft. I don't know the final answer to that right now – that is, whether we're going to end up posting a full RFP.

Q3: We are currently the users of many of the tools of Joint Spectrum Data Repository (JSDR), Spectrum 21, and End-to-End Supportability System (E2ESS). Is the EMBM the first iteration of that? Because I heard the Electromagnetic Spectrum Situational Awareness (EMS SA) is the first iterations of EMBM, which is the situational awareness. Is that being developed currently?

A3: I will give you the quick overview of what we're doing and how we're doing it. I'm dual hatted, and so is my whole program office. We run GEMSIS, which is the Global Electromagnetic Spectrum Information System, a traditional acquisition. Sometime in December, the Department (DoD) changed a lot of their policies and created the Adaptive Acquisition Framework that we are following for EMBM. We are all dual hatted, with respect to the work that we've been doing. We did get some resources in FY 20 that were focused on improving situational awareness. What we were doing with those resources is making additions and improvements to our JSDR, under GEMSIS to be able to provide those enhancements. We have been road showing those enhancements with the combatant commands and getting input from them and their associated capabilities. The input gathered will be released shortly.

We are trying to feed as much information as possible to the combatant commands in an organized way, so they can figure out what some of those activities are. An example might be bringing together interference reporting into a geographical environment that has the same information with things like frequency assignments, and other sources of information. When someone is experiencing interference, this allows us to potentially have a faster path to resolve what some of those conflicts are.

That is the EMS SA. In EMBM, as we prepare to start it here, most of the RFI that you have seen, is focused on what we are calling Minimum Viable Capability Releases (MVCRs) 2 and beyond. We have two MVCRs set for EMBM. The first, MVCR1, is focused on situational awareness. For that we are largely making additions to the JSDR. We have an existing contract vehicle in place that we were able to leverage and add additional tasking that is within scope to be able to cover MVCR1. That will get started shortly.

With the official kickoff of the EMBM program, I'm waiting on an ADM, an Acquisition Decision Memorandum. The RFI will focus on what we are calling MVCR2 and beyond. The RFI is focused on the entire EWPM piece going forward as that capability comes in, and the integration over time of all of this into a single product. We are funded over the whole Future Year Defense Program (FYDP). We see this as a five-year program that is working to meet the requirements of electromagnetic battle management. However, if you look at the superiority strategy, it is likely to go beyond five years. I believe it is focused on 2030 for some of its objectives, so keep that in mind. While right now we're only funded for five years, we're guessing that there'll be more requirements coming in, ultimately.

The term that I used, MVCR, comes from the new Adaptive Acquisition Framework. With each of those (MVCRs), we get basically one (1) year to go from a contract start to having something

operational inside of that one-year timeframe. After that, we intend to have an agile development process to meet the rest of the requirements. So that'll apply for MVCR1, which we're about to kick off, and MVCR2, which the focus of the potential OTA that we're considering.

Q4: Will the team be sharing insight on the aggregation of data from a volume, velocity aggregation, and retention perspective?

A4: It depends on what you mean by that. First, from a data perspective, the data requirements for this are extensive. A lot of the sources end up coming in, in terms of feeds and things like that. Some of the data we don't want to necessarily keep and retain over time. That might be anything from like what is actively being sensed. We're not building sensors here, I'm not in the sensor business. But if sensor feeds are available to us and we end up using that information, it's not likely we're going to retain a whole lot of it. I, along with the rest of the world, don't have enough disk space for that. However, there's a lot of information that we do retain and retain historically. We do keep information on frequency assignments, interference reports, as well as information that will ultimately become or may be considered records. Those records are required to be kept and retained for some fixed periods of time.

Q5: Can you speak to the size? Are we talking terabytes per day? Petabytes per day? What is your vision for aggregating the situational awareness element?

A5: I know we're already over terabytes in the in the JSDR. We're already exceeding terabytes. That's not terabytes per day. A lot of that information is stagnant, and it changes at different rates. We currently do not have a lot. We do not have feeds of sensed data yet, but that is the type of information that would change quickly. We are working to include feeds of force movement and that is the type of information that does change.

Q6: Is the program office entertaining Commercial Off the Shelf (COTS) solutions as part of this acquisition or is it looking to build a Government Off the Shelf (GOTS) solution without COTS components?

A6: We use a lot of COTS components today even when we build a GOTS solutions. That is largely how we built the JSDR. It is an amalgamation of COTS configured to produce a GOTS solution. We very much have an open mind to it, although one thing we do prefer is that we retain some kind of data rights to the whole software system. That is our preference, but we have an open mind to possible options.

Q7: Please compare and contrast the envisioned Joint EMBM solution with a Service level EMBM solution like EWPMPT or Real Time Spectrum Operations (RTSO).

A7: This has been kind of a debate for a long time, which is the joint program providing a solution for the Services. I was literally told by one senior leader, inside of the department at the time, not to try to solve the Service problem because we would get bogged down in trying to do that. Instead, focus on the single problem at hand, which is at the JTF level, and supporting the Joint Electromagnetic Spectrum Operation Cells (JEMSOCs). Now, I will say that part of what we are likely to produce here at the joint level is data that goes back out in support of the individual component commands.

So, while we will have a joint solution, the services are moving to build their own capabilities that meet their own requirements. An example is obviously the Army and EWPMPT. It is focused on the Army, the Army's business process. Under Navy RTSO, it is again focused on the Navy's requirements. The Marine Corps has the Spectrum Services Framework. I don't think the Air Force is doing a lot in this area yet, but again, they are focused on meeting their own individual requirements. Where we have to come together is how the information is interoperable, how it feeds up into the JTF, and then how ultimately, we potentially feed out the whole Electromagnetic Operating Environment (EMOE) picture. Additionally, if you need to see it down at the component level, they should be able to subscribe to our aggregation of that information.

Q8: What is the data store database technology that comprises the JSDR? Does JSDR include a Kubernetes architecture to support deployments of SA apps as containers.

A8: It will be containerized. We are in the middle of transitioning to containerized environment. However, I won't go too deep into the technical details of how it works, but it is an amalgamation of COTS components that ride on both Linux and Windows Enterprise environments and talk to each other and store information. We are in the midst of trying to move all of that into commercial cloud environments to enable a more DevSecOps type operations for both programs moving forward. Ultimately, this will allow us to be able to go from requirement to deployed capability very quickly. I told the Defense Information Systems Agency (DISA Director just two weeks ago, I'd like to be in a situation at some point where I can go from requirement to fulfillment and operations inside of one quarter. Traditionally, that's been a real challenge for the department (DoD) because of how long it takes to go through deployment and test. We are fully embracing a move to DevSecOps and we want to be able to take advantage of that. We want to be able to push button deploy capabilities quickly. We get those types of capabilities by moving in a commercial cloud. Those things will allow us to very, very quickly build and deploy systems so we're fully embracing all of that.

We're in the process of trying to move GEMISIS products into the commercial cloud services and we are intending to utilize Kubernetes after we are deployed in the commercial cloud. We don't currently have Kubernetes, but we are planning to use it.

Q9: What process is DISA using to solicit requirements and needs from the Combatant Command (CCMD), J39, J6 and J2 shops? Will the CCMDs be participating in the OTA procurement to provide direct user feedback?

A9: I would say they are participating indirectly. Under the Adaptive Acquisition Framework, we have an established User Agreement. That User Agreement exists between the users of the combatant commands, the user representatives which is the Joint Electromagnetic Warfare Center (JEWEC), and the requirements owner, which is United States Strategic Command (USSTRATCOM), and we all work very closely together between JEWEC, USSTRATCOM and DISA on this subject. Now, obviously the combatant commands have a day job and so we limit their direct engagement, but the JEWEC reaches out to them on a regular basis for the purposes of collecting and refining those requirements. The J8 out at STRAT is the requirements owner and they've been very good. They're responsible for the Capability Needs Statement which some of you may have seen as the Information Technology Box Capability Development Document (IT Box CDD) that went through for Electromagnetic Battle Management. They are responsible for that. We turn to them for guidance on the requirements. We are putting in place a process for refinement as all of this gets started through user engagement. Once we start developing as part of this agile process, there'll be a mechanism by which we work with JEWEC, STRAT, and the users to be able to get continuous feedback to improve the products. There's probably a diagram that shows how the combatant commands work with JEWEC and STRAT funneling those requirements as well as how we, as the program, get those requirements and work with the customers, JEWEC and STRAT on refining all those requirements to a capability.

Q10: Can you share a briefing on the current product under contract and how you envision it merging with future contracts?

A10: It's not cleared for release yet, but we do have a roadmap that kind of describes that. This roadmap is portrayed on a one-page slide has three swim lanes. The top swim lane is the work we're doing for MVCR 1 and the bottom swim lane is the work we're doing for MVCR 2 and Electromagnetic Battle Management inclusion. There's a big triangle in the background that says how all of this comes together over time. We will work to get that publicly released. We had to produce this roadmap as one of the requirements that you have for adaptive acquisition that you have a roadmap in place. We will work to clear the roadmap for release and get it out to the community.

Q11: How will the JEMSOC solution created under this acquisition be aligned with the analytic and data products provided by the Joint EMS Information and Analysis Fusion (JEMSIAF) at the JEWC? How will RFIs and data needs be conveyed by the JEMSO community to the JEMSIAF?

A11: I'm not going to talk much to JEMSIAF other than we are working to include the data that comes out of JEMSIAF into the JSDR as well or to make that linkage, so all of that information is available. Our goal is to really have an overall singular repository of information so that the combatant commands can reach in and get what they want as fast as possible. I cannot stress that speed is one of the things that we're trying to achieve here by eliminating the need for people to search multiple places for information.

Q12: Are there experimentation events and venues being identified to allow for a demonstration and solicitation of feedback on potential solutions from the CCMD JEMSO cell organizations?

A12: Yes, we are working on that. Obviously, Joint All Domain Command and Control (JADC2) gets a lot of attention. Another effort we have been involved with is a Joint Capability Technology Demonstration (JCTD) that is being worked between EWPMT there's a spectrum data repository and the spectrum services framework with the Marine Corps. The JCTD is called EMS-VIEW and it allows for the exchange of information. I don't know the use case off the top of my head. If I remember correctly, the Marine Corps is asking for jamming support or something like, that from the Army and vice versa. The Army is also asking for jamming support from the Marine Corps and having the ability to have some of that information flow through that process.

We see this as good risk reduction for everything coming together and the demonstrations that are slated for early this summer. It was delayed a bit due to Coronavirus Disease (COVID), but everything is progressing on that. That's one item. And by the way, in concert with the JEWC, there is a continuing effort to pursue other avenues as well for potential demonstrations and exercises. We're already engaged with JADC2. What we've done is set up the Joint Information Operations (IO) range, which is often used with JADC2. We've got a connection to that at DISA up at the Joint Interoperability Test Command (JITC) lab, which we're wired into. We have the ability to take the JSDR up there and put components of it in the laboratory in support of future exercises. Right now, we're trying to figure out, once we get out of COVID and more of these exercises start to come back, what the nature of those exercises entails. Again, as a program manager I see these as opportunities for risk reduction. They tell us what we need to know and what we need to adjust. I'm a big fan of exercising capabilities in real world environments to the greatest extent possible because that's going to reduce my risk going into full operations.

Q13: Is the expectation that in year one there is an ATO capability at all three classification domains?

A13: We are pursuing that now, so I'm going to leverage, to the extent that I can, existing ATOs that I have under GEMISIS that were approved for Secret Internet Protocol Router Network (SIPRNet) and Non-Classified Internet Protocol Router Network (NIPRNet). We will then be adding Joint Worldwide Intelligence Communications System (JWICS) to that as well. Before we get fully into the EMBM, we're looking to pursue an ATO for our capabilities on JWICS. To the extent that I can add to that I will. I will say that there is an intentional focus to try to do most of the work for this at the Secret level and the reason doesn't have to do with the information system. The reason has to do with getting the appropriate people cleared up to the right levels. While that's not really a problem for us, it could be for the combatant commands. As a result, they're trying to aggregate as much information as they can at the Secret level for the purposes of the work that has to be done. We believe that can be done by obviously not bringing down some of the intelligence related information. The fact that something is sensed in a given area usually might top out at the Secret level. It's the content of the signal that might go up even higher than that. We're really trying to do as much as possible at the Secret level, but we will have capabilities up at the Top Secret (TS) level because we are running into other communities that do their work at that level. They will need access to understand what the electromagnetic operational environment is as well. With respect to your question about the first year, I would say if I'm talking about MVCR 2, I'm believing that the first-year focus of that to be operational within a year should be planned to be operational on SIPR for the first target year. I'd be willing to hold off on TS after that.

Q14: Is there an expectation of a deployable solution?

A14: Yes, and some of that we want to do through cloud capabilities. Commercial cloud providers have the ability to deploy forward. I've seen pictures of them, and they can be a container of servers, if we need one in the JTF. That way we can push forward capabilities that have been built, that are web based, if we feel we have a need to do that. We can also do that by just having multiple instances spread around the world. That's another approach. There is likely a need to continue to support disconnected type operations. Although a JTF by itself, typically doesn't have the need for disconnected operations in today's world, but it is a consideration that we may need to address. We can either address it by having disconnected capabilities or being able to push those capabilities forward into a deployed server farm. That approach may be just as good.

Q15: And what is the expectation for disconnected operations?

A15: I will stress again; I think most of the disconnected operation needs come from the individual Services. They're the folks that have people hard out in the field, in battalions, and such, that might be doing things. I would say that our requirement for that is less. Again, we are focused on what's going on inside of the JTF. Sometimes you see CENTCOM running their wars from back here, right? They have great connectivity available to them, but we must be able to provide options if there is a situation where that connectivity might be limited. It could be a deployable set of servers or something like that. Or, with some of the cloud providers, I could just say I may need to buy something, I need to buy it here. Give it to me, ship it in, I don't care what you have to do. I just want to look like I'm on the network. Just drop it in at this particular location. That today is possible with cloud providers.

Q16: Does JSDR provide APIs to enable streaming sharing with the broader EMBM?

A16: It does have an open service for sharing information. One of the components coming out of the JCTD is what we call a stub server. It's kind of a stub of the JSDR that goes into EWPMPT and it's their stub in the Marine Corps capability as well. That stub server allows for the enhanced exchange of information. We do have an open service as part of the JSDR. It pushes information back in a using JSON for that. It can offer data in other certain specific formats as well. And by the way, open to changing any of that to meet data need requirements.

Q17: What role do you envision AI and machine learning to play in the EMBM?

A17: I hope you heard me earlier because I can't say it enough. It is fundamentally about time. In fact, if we go towards the far distant future, hopefully all the people are out of the loop and devices are making their own decisions about what to do with spectrum. That's going to require artificial intelligence. We really think that some of the problems that must be solved are primed for artificial intelligence to help solve them. Particularly if you're looking at a mass of data in a given environment, which is the EMS. How do you interpret and understand that data quickly enough to be responsive to a commander in today's day and age? There's a limit by which people are able to address these issues. Now, the reason we have subject matter experts involved is for just that reason, they're the experts in their field. What we want to be able to do is determine how we take that expertise and put it into the Information Systems going forward. We know there are problems with getting our data in good enough shape that we can use artificial intelligence and machine learning to help solve problems faster. I can't stress enough, it's about time and keep in mind that we're competing with adversaries that are doing the same thing. So, if you want to consider it a space race or something like that, you could.

Q18: Is EMBM envisioned to be primarily an EMSO planning tool or real time EMS C2 tool or both?

A18: I characterize it as command and control the EMS. It needs a more extensive brief on the whole processes that occur. I'll refer to a JEWIC document that was called the OEG, the Operational Employment Guide, where they laid out the processes that had to occur inside of JTF. There is a whole deliberate planning set of phases that occur sometimes six months in advance. All that information flows into the JTF, goes through a set of processes, and ultimately results in a set of commands or orders that come out of that JTF. As you get closer and closer to operational time, it becomes more current operations, and you're dealing with issues that are occurring in near real time. I liken it more to the command and control of the EMS, because what we're seeing is that we will be tied into other aspects of commanding control, to understand where forces are, and what actions may need to be taken as part of command and control in order to further the objectives that a particular commander is trying to achieve in the EMS. This is an area where we still need to figure this out, while the department is figuring out JADC2 as well. If anybody has seen it, the EMS is essentially one of the five domain areas of JADC2 and EMBM sees itself as the provider for those capabilities inside the JADC2 environment.

Q19: Is this an unrestricted or small business set aside opportunity?

A19: We're tracking towards using Other Transaction Authority for this. We could have a whole meeting on OTs and qualifying for them and all that kind of stuff, but if you're not familiar with them, just look up Other Transaction Authority and that's the direction that this one's planning on going in. I cannot stress the value of partnering. We can achieve our objectives if we have the right partnering in place. We can't direct that, but certainly we can encourage it. Partnering is a very valuable way to bring in different expertise across the department and be able to move towards providing solutions, particularly to a complex problem like this.

Q20: What is the relationship between the upcoming EMBM OTA and the 2020 EMBM SA contract award that has a pop until 2025?

A20: First of all, EMS SA is a vehicle that we use for the JSDR contract under GEMISIS. The relationship is that in the EMBM we have the ability to use and leverage whatever we need from GEMISIS, including the JSDR. When we did some of the early situational awareness work we bolted some of that on to that contract and the reasons for doing it were multiple. One of them was that the contract was within scope and we had ceiling and surge capability on it. The other was that the EMS SA requirements were within scope of requirements that we were looking to fulfill. A policy from the department directs that the JSDR should be that kind of repository of information for EMS related information. I do tell people it will never be finished,

meaning that there's always some new piece of information, new data source, or new COTS capability that we can bolt onto it. However, we do want a relationship to be there between the work that we do under MVCR2 and how we bring EWPMT in. EWPMT already today gets data from the JSDR. That capability we want to continue going forward. That's part of what I described in this big picture is that ultimately the information as it flows into the joint system has to then flow back out and provide that overall EMOE picture out to the components that are doing their individual service-related responsibilities. I see a continuous relationship there. Whether that's all consumed by one contract going forward remains to be seen, but that contract exists today because it is supporting GEMISIS. We are using it to support the work of MVCR1 as well.

Q21: With the DoD-wide push for information warfare cyber electromagnetic warfare, etc. is there a plan to integrate EMBM with the cyber systems?

A21: We think we have that in the out years, but I don't think that's the immediate need, and cyber still figuring out a lot of what they're doing as well. That might come at some point in the future, particularly in the areas where we might overlap. Right now, we're focused on 1) understanding what's going on inside the electromagnetic environment and 2) being able to respond to it as quickly as possible. The key goals for EMBM are situational awareness, decision support, which is provide courses of action and send to a commander to allow him to make decisions. And then command control and training as well.

Q22: Is there a value in an EMBM that is integrated to joint Cyber Command and Control and their efforts for Cyber SA and cyber battle management?

A22: I would say that in the long term – eventually, yes. However, like I said previously, we're mostly focused on the EMS requirements right now.

Q23: Is EMBM working with US CYBERCOM on the Joint Cyber Warfighting Architecture (JCWA)?

A23: I have to say, I don't know what that is, so the answer is no.

Q24: Will this OTA acquisition follow the same challenge-based approach that DSO used for TARDyS3?

A24: For now, the plan is tracking towards that. Within the Reverse Industry Day invitations, we're trying to get some feel for if the challenge-based approach would be welcomed as well as any ideas towards challenge scenarios.

Q25: What type of user engineers or technicians or both do you envision for EMBM?

A25: Assuming this is referencing end users, this includes electronic warfare officers, spectrum managers, and maybe intelligence analysts. I cannot say yet that I have a complete understanding of the complement of a JEMSOC. I think they're probably mostly electronic warfare officers, telecom specialists, in a position that are focused on solving problems; with the appropriate mix of the appropriate military folks.

Q26: What are the companies scheduled for the Reverse Industry Day?

A26: The invitations for Reverse Industry Day have gone out to the companies that have been chosen to participate. If the company has been notified, then you've already been invited, but we're not going to disclose the whole list. Again, we're not using the Reverse Industry Day for source selection.

Q27: Can we have the weekend to factor these answers into our submission and deliver Monday morning instead of Friday?

A27: Yes, if you want to submit your information on Monday, I believe that's fine. What we'd like for you to do is to submit the request for an extension via email to Yolanda Dixon or Craig Carlton. Then they will release it as an amendment once it's approved by the team. It looks like there's not an issue with the extension. Please submit that question via email to the POCs and we'll get that out as an amendment for an extension for everyone.

Q28: Can you please provide an overview of the OTA timeline?

A28: That that hasn't been fully decided or vetted yet. Therefore, the answer currently is no. However, if the Government moves forward with doing an OTA in a possible challenge base, then that will be released later.

Closing Remarks

Mr. Rosner thanked everybody for their participation. He reiterated that the Government, both DISA, STRAT, and the Joint Electronic Warfare Center intend to get the EMBM program started and moving forward. Having this event, reflects the Government is serious about the next phase of EMBM. Mr. Rosner assured the industry participants that more information will be forthcoming and is encouraged by industry's eagerness to participate. He urged industry to

look at the Spectrum Superiority Strategy because there's opportunities in lots of other places beyond EMBM. He asserted the Spectrum Superiority Strategy is all likely to lead to a significant amount of work so that the department can achieve its objective of superiority in the EMS. In conclusion, Mr. Rosner thanked industry for their time and participation.