1	GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
2	SHRIMP MANAGEMENT COMMITTEE
4 5 6	Hilton Palacio del Rico Hotel San Antonio, Texas
7	August 23, 2021
8	
9	VOTING MEMBERS
10	Leann BosargeMississippi
11	Kevin Anson (designee for Scott Bannon)Alabama
12	Patrick BanksLouisiana
13	Dale DiazMississippi
14	Dave Donaldson
15	Robin RiechersTexas
16	Andy StrelcheckNMFS
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18	NON-VOTING MEMBERS
19	Susan BoggsAlabama
20	Billy BroussardLouisiana
21	Jonathan DugasLouisiana
22	Phil DyskowFlorida
23	Tom FrazerFlorida
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26	Lisa Motoi
27	Bob ShippAlabama
28	Joe SpragginsMississippi
29	Greg StunzTexas
30	Troy WilliamsonTexas
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32 33	STAFF Assane DiagneEconomist
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36	Beth HagerAdministrative Officer
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38	Ava LasseterAnthropologist
39	Mary LevyNOAA General Counsel
40	Natasha Mendez-FerrerFishery Biologist
41	Emily MuehlsteinPublic Information Officer
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TABLE OF MOTIONS

<u>PAGE 27</u>: Motion to not incorporate Draft Options 2b and 3b in Action 1 of the draft framework action. <u>The motion carried on page 28</u>.

 PAGE 29: Motion in Action 1 to add the following language to Alternatives 2 and 3. Alternative 2: The owner or operator of a shrimp vessel with a valid or renewable Gulf shrimp moratorium permit (SPGM) would be required to install an approved vessel monitoring system (VMS) that archives vessel position "when on a fishing trip in the Gulf of Mexico" and automatically transmits that data via cellular service to NMFS. Alternative 3: The owner or operator of a shrimp vessel with a valid or renewable SPGM would be required to install an approved electronic logbook that archives vessel position "when on a fishing trip in the Gulf of Mexico" and automatically transmits that data via cellular service to NMFS. The motion carried on page 32.

PAGE 33: Motion in Action 1, Alternative 2 to add the following language: Alternative 2: "Implement a VMS requirement for the Gulf shrimp fishery." The owner or operator of a shrimp vessel with a valid or renewable Gulf shrimp moratorium permit (SPGM) would be required to install an approved vessel monitoring system (VMS) that archives vessel position "when on a fishing trip in the Gulf of Mexico" and automatically transmits that data via cellular service to NMFS. The motion carried on page 34.

The Shrimp Management Committee of the Gulf of Mexico Fishery Management Council convened on Monday morning, August 23, 2021, and was called to order by Chairman Leann Bosarge.

ADOPTION OF AGENDA APPROVAL OF MINUTES ACTION GUIDE AND NEXT STEPS

CHAIRMAN LEANN BOSARGE: First, before we jump right into the Shrimp Committee, I would like to -- On behalf of the shrimp industry, I would like to congratulate Andy on his new position. Andy, I think that hard work and dedication is what got you that position, and we are very proud of you and very excited to have you in that position, and so thank you.

I would also like to welcome the new council members around the table. I know I'm not there in person, and I apologize, but, in this world of COVID, we are in quarantine right now, my kids and I, and so it is in our household, and so bear with me.

I also like to welcome our new council members and encourage them to participate in the Shrimp Committee, to whatever extent you feel comfortable, and I always welcome feedback and input from both committee members and council members that may not be on the committee, and so feel free to do that.

One question for Chairman Frazer, and is it possible -- I was just kind of listening to how the last committee went, and is it possible for staff to put the names on the board for me of not only people that raise their hands on the webinar, but also people that raise their hands in the meeting room, to kind of make it more efficient, and is that possible?

DR. TOM FRAZER: Yes, we can give that a whirl, Leann. I think the issue really is just I was trying to help save a little time, but we can certainly do that approach, try it and see if it works, and so I will identify the hands, and I will get them over to Bernie, so you can see them.

CHAIRMAN BOSARGE: Okay. All right, and, if you think it ends up being less timely, then, please, we'll go back to the way it was, because, honestly, that's why I was trying to go that route, was to make it more timely, because you know I always run over budget on my time, and so I will follow your lead. You tell me if it's not working, and we'll punt, and we'll go back to the way you were doing it before. I have no problem with that.

All right, and so, with that, I would like to call the Shrimp Management Committee to order. I will remind you of the membership, which is myself as Chair, Mr. Banks as Vice Chair, Mr. Anson, Mr. Diaz, Mr. Donaldson, Mr. Riechers, and Mr. Strelcheck.

The first item is the actual adoption of the agenda, which can be found under Tab D, Number 1. Were there any additions or changes to the agenda that anyone wanted to make? All right. Seeing no hands on the board, and no feedback from Dr. Frazer, I will assume that the agenda is adopted as presented.

The next item on our agenda is the Approval of the June 2021 Minutes, which can be found under Tab Dr, Number 2. Were there any modifications or amendments that needed to be made from those minutes from our last committee meeting?

DR. FRAZER: I am seeing no hands, Leann.

CHAIRMAN BOSARGE: Thank you. All right. Seeing no hands, the minutes are adopted as presented. Next is our Action Guide and Next Steps, which can be found under Tab D, Number 3, and I will let Dr. Freeman go through that as we get into each agenda item, and I think that would probably be the most efficient way to do that, and I believe that Dr. Freeman is participating virtually as well. With no further ado, the next item on our agenda is the Update on Effort Data Collection for 2021, which is Tab D, Number 4. Before we turn it over to Dr. Lowther, I am going to turn to Dr. Freeman to just introduce that agenda item, please.

UPDATE ON EFFORT DATA COLLECTION FOR 2021

DR. MATT FREEMAN: Thank you, Madam Chair. With this agenda item, the committee will be presented with an update on retrieval of data from the cELB units in use aboard federally-permitted Gulf shrimp vessels since 3G transmission was discontinued back in December of 2020. The committee should consider the presentation and ask questions. This information does not require any formal committee action.

CHAIRMAN BOSARGE: All right. Thank you, Dr. Freeman. Dr. Lowther, are you ready, sir?

DR. ALAN LOWTHER: Yes, I am. Thank you, Madam Chair. What I will be providing is an update on how the retrieval of the vessel position recorder data is going from what we're calling the cellular electronic logbook, even though the cellular portion of it is no longer working.

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I am Alan Lowther, and I'm with the Fisheries Statistics Division, and I work with Dave Gloeckner and John Walter, who are also on this call, and I am new to the shrimp world, and so bear with me. If I can't answer all the questions, I can at least find people who can answer all the questions, and so I am getting immersed in the ways of this effort collection.

I wanted to do is just start off kind of reminding everybody where we are in this process, and then we will -- I will give an update on kind of how the process is going, and so, first of all, the units ceased transmitting their location data to us, and so we had no way to retrieve the data from the cELB still collect the They data, but they're transmitting, and so, as a stopgap measure, it was decided that what we would do is continue to use the units, but we would need to actually have the SD cards, which records the location data, sent back to us from the shrimpers.

In order to maintain the data collection, we worked out a process where the first step was to develop the instructions for the fishermen to remove the old card and install a new card and then send all the fishermen a new SD card in a mailer with these instructions, along with a return-address mailer for them to send it back to our Galveston Lab, and so these were both — This part of the work was completed in the middle of May.

We asked the Gulf States to be able to take the SD cards from us and load them onto their server, in order for us to isolate potentially infected cards. We had some issues with being allowed to put it onto a federal government computer, due to IT security restrictions, and Gulf States was able to facilitate that process for us, and we really appreciate that.

They downloaded the data from the cards and then transmitted the data to us, and so they developed the table, and then our IT staff worked with them to be able to pull down the data that they were putting onto their server and then get it into a table that we could access, and that was fully tested and implemented by the end of June.

Before we sent all the mailing materials to everyone, we did send a postcard explaining that it would be coming, that these changes would be coming, and then the letter was sent with the return package, and that was sent by May. We completed all these things by the schedule that we had laid out, for the most part, and there were a couple of things that were maybe a couple of weeks behind, but, ultimately, we sent 493 packages on June 1

with these that had the SD card, the return mailer, and the instructions.

The text that's in black is what we had provided, and the blue is just to update you, and so we did receive -- We received the SD cards at Galveston and then forwarded them to Gulf States. We agreed that Gulf States would try to do this procedure within one month of receiving them, and they've actually been able to do it much quicker than that, and so we really appreciate that. They told us that the process has gone quite smoothly, and so we're very appreciative of that.

Then what we are doing is then we receive data back from Gulf States, and we're in the process of looking at the data we're receiving and trying to identify whether we're receiving good data or bad data from the units, and we did send a large number of replacement units on June 7, and these were ones that were identified as needing replacements before getting the data back, and so, now that we have received the data back, we're examining those, and we will see how many replacement antennas we potentially need to send.

Then, after Gulf States downloads the data, they return the batches of used chips to Galveston, and then the idea was that that we would repeat this process as needed, but once in the fall.

Where are we in this process? As I mentioned, 493 replacement SD cards were sent out. So far, we have received -- Well, as of probably a week ago, we had received 212 returns, and we have probably received a few more since then, but these are ones -- I'm sorry, but, as of July 26, and these were sent to Gulf States Marine Fisheries Commission in two batches. 103 were sent on July 13, and 109 were sent on July 26.

Of the first batch, ninety-five contained data, and we were able to successfully transfer the data to our cELB server in Galveston, where we're in the process of analyzing the data. Then, the second batch, we're currently looking at, and so I think, in total, and so I have a little bit of updated numbers, but we have had 212 come back, and we have 196 with data, in total.

When we looked at that, and this is not on the slide, but this is just some basic information, but we have 4.5 million rows of data. Of that, 1.3 million rows had what appears to be bad location data, and so, in other words, data where the antenna seems to not be working, and so that's about 23 percent of the

data rows.

We just did a very quick comparison this morning, to see how that compares with the electronic, when we were receiving the cellular transmissions, and it's quite a bit higher, and I think this makes sense, because we don't have the instantaneous feedback, unfortunately. It's a slow process of sending out cards and getting them back, and so we're seeing more antennas that appear to not be working, and the process for replacing them will take some time.

We're in the process of analyzing the data we've received so far, and, like I said, that has just started, and so I gave you some very preliminary numbers, but we really need to kind of delve into it a lot more. One of the things that is perhaps concerning is that, of the 493, we have received back 212, as of the end of July, and I imagine that we have a few more that we have received in the intervening weeks, but we're still looking at approximately 50 percent of the SD cards have been returned, and so one of the things that I would like some -- Something that maybe we can have a little discussion on too is how do we get the other half of the fleet, who have received these, to send them back to us?

Some potential ideas would be reminder postcards for the folks we haven't received, but I think we may need other methods to get these back, and I know that people don't always look at everything they get in the mail, and maybe we can engage with the industry groups and have some better outreach, in terms of that.

We do plan on sending thank-you postcards to those that have returned them, and then, like I said, we need to look at the data that we're receiving and provide feedback to those who did return them who may have a faulty antenna, and I suspect that we're going to have a few of those. I think that may have been the last slide. That's what I have, in terms of an update on how the process is going. Thank you very much.

CHAIRMAN BOSARGE: Thank you, sir. That was a very thorough presentation. Did anyone have any questions or feedback?

DR. FRAZER: Leann, I think it is actually, if it's okay with you, going to be easier if I can just identify folks.

CHAIRMAN BOSARGE: Sure. That's fine. Go ahead, Tom.

DR. FRAZER: Mr. Riechers.

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MR. ROBIN RIECHERS: If I am reading the last update on the progress so far report, and you just said it, and I want to make sure that I got it correctly, but, basically, half of those that were sent out have been returned back, and then, as I'm understanding it, about half of the ones that we have analyzed from Batch 1 -- I'm sorry. Almost 100 percent of the ones that came back have data, and so is there any reason -- Dave, have you all had a chance to look, and are we thinking that Batch 2 is going to be positive in that same rate, basically?

MR. DAVE DONALDSON: I don't have any indication that it wouldn't, and so, no, I haven't talked to them to know for sure, but I don't anticipate any issues.

MR. RIECHERS: Then, as a follow-up to that, and I know this was -- Certainly we have talked about this when Benny has been here presenting in the past, the outreach that he provided to vessels and getting those cards picked up and that sort of stuff, and I guess I'm -- Since we sent out 493, what was our expected rate of return, and does the 493 match what we had on vessels before and what we needed to collect, or is it -- Did we build in a return rate inside of that already, and so how does this current 113 and 109, 212 cards, relate to past reporting, from a numerical standpoint?

DR. FRAZER: Dr. Lowther.

DR. LOWTHER: I'm sorry. Was that a question for me?

DR. FRAZER: Yes, it is.

DR. LOWTHER: Okay, and so I'm not sure how we would compare to past reporting, because I think that we were receiving data from -- We were able to more quickly replace antennas, as they would fail, so that we would have essentially reporting from everyone when the cellular end was working, and so now the other thing is that we're -- I mean, there is two issues, and maybe I'm a little confused about the question.

What we're talking about is, of the cards that we sent out, we've received about half of them back, and I don't know that we have something to compare that to. I think this is a new process, and then the other issue is trying to make sure that all the cELB units have functioning antennas, and the issue there is that we don't find out that it's not functioning until we receive the cards back, and then, at that point, we can try to send out a replacement, and I apologize if I misinterpreted

your question.

DR. FRAZER: Robin, are you all good there?

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MR. RIECHERS: Let me try to tease out one more aspect of that, and I certainly appreciate that -- Certainly we're not going to know until we get those back, but I guess what I'm trying to figure out is we had a rate of reporting or a number of vessels that we were trying to be on, and it was stratified across the Gulf, and that's the reason we quit doing ELBs in the first place, in some respect, or at least that was part of the discussion way back when, and the Center took that on, and then, of course, we've had the 3G and 5G and all that good stuff that occurred. If you're a cellphone provider, at least good stuff. Now are we getting the number of reports across that stratification, similar to what we got before, is my question.

DR. LOWTHER: So are we still getting kind of a representative sample, based on what we stratified? I would say that, based on what we've seen so far, we just haven't had the chance to really look at that aspect of it, and so that would be something that would be -- Like I said, we're just starting to look at what we're getting back, and so I think that would be a next step.

 ${\tt DR.\ FRAZER:}$ Leann, I'm not seeing any other hands around the table at the moment.

CHAIRMAN BOSARGE: Okay. I have a question for Dr. Lowther. Thank you, Mr. Chairman. I was wondering -- At the last council meeting, we also had a briefing on this, and I had asked how many of the SD cards were left in stock at NMFS, or the Galveston Lab, whatever the case may be, once you mailed out this first round of cards, and, if my memory serves me, I want to say maybe it was like fifty-something, and so it wasn't enough to do the mailout again at the end of this year, which is our game plan.

 I was wondering, and I'm sure you all have looked into ordering some more of those SD cards, and how is that coming, with the chip world the way it is today, and will we be able to get some more of those, or are we going to maybe just be doing this annually, instead of twice a year?

DR. LOWTHER: I believe our plan is still to do this twice a year. We haven't placed the order yet for the next batch of SD cards, and so I recognize that there have been supply problems in the computer industry, and I don't know if that will affect what we try to do, and that's a possibility. I know that we've

done some pricing on things and looked at it, but we haven't actually placed the order, to my knowledge.

CHAIRMAN BOSARGE: All right. Thank you, sir. Maybe at our next committee meeting, or even at Full Council, if we could get an update on when those would be expected to arrive, so we'll know, management-wise, what we can expect, as far as sending them out twice a year or once a year, and possibly coming up with a back-up plan, because I could see some alternatives that we could switch over to, if need be, or reusing the old chips that we're getting in, and, of course, the Science Center may have issues with that, but, still, it's a discussion we need to have.

The more data you can give us, and information you can give us on that, the better, and so thank you for any update you can give us, either at Full Council or at our next committee, on the status of when those new SD cards would arrive. All right. Mr. Chairman, if there is not any other hands up, we can move on to the next agenda item.

DR. FRAZER: Feel free to move ahead.

CHAIRMAN BOSARGE: Okay, and so the next agenda item is the Draft Framework Action: Modification of the Vessel Position Data Collection Program for the Gulf of Mexico Shrimp Fishery, and there are several sub-items under this agenda item, and so, Dr. Freeman, if you would like to take us through the action guide, and then I will turn it over to you for your presentation.

DRAFT FRAMEWORK ACTION: MODIFICATION OF THE VESSEL POSITION DATA COLLECTION PROGRAM FOR THE GULF OF MEXICO SHRIMP FISHERY

DR. FREEMAN: Sounds good. Thank you, Madam Chair. The items here for this particular agenda item is the committee will be presented with a draft framework amendment to transition the Gulf shrimp fishery from the expired 3G cELB to a new device collecting vessel position data for the purpose of maintaining effort estimation. Staff will review draft alternatives, as well as other potential decision points.

The committee should ask questions and provide staff with further direction for the draft framework amendment. The committee should also discuss the comparison table of draft cELB and current NOAA OLE VMS specifications, as presented by Ms. Bosarge as the table relates to alternatives considered in Action 1.

CHAIRMAN BOSARGE: Thank you, Dr. Freeman. If you want to go ahead into your presentation, and, Dr. Freeman, would you like us to hold our questions until the end of your presentation or stop you as you go?

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DR. FREEMAN: At your discretion. I am fine taking questions during it. However, if you think it would be more conducive to hold questions until the end, I'm fine with that as well.

CHAIRMAN BOSARGE: All right. Well, since Dr. Frazer is going to be calling on people, I will leave it up to him, but just proceed as you see fit, Dr. Frazer, and interrupt Matt if you need to.

DR. FREEMAN: All right. The committee saw draft purpose and need statements at the June council meeting and provided edits to the purpose statement, and so I will just read these again quickly, just as a reminder.

The purpose of this action is to transition from the expired 3G cellular electronic logbook program to a system that would maintain the council's and NMFS' scientific ability to estimate and monitor fishing effort in the Gulf of Mexico shrimp fishery while minimizing the economic burden on the industry to the maximum extent practicable.

The need is to base conservation and management measures on the best scientific information available and to minimize bycatch to the extent practicable, as required by the Magnuson-Stevens Fishery Conservation and Management Act, and minimize interactions with protected species, as required by the Endangered Species Act.

The first bit of this, Dr. Lowther took you through, and so I will move down to the third bullet point. Through this framework action, the council is exploring alternatives to the cELB program, in other to continue the estimation of effort in the shrimp fishery, which will assist in conducting annual shrimp stock assessments, estimating bycatch of other species for use in other species' assessments and monitoring the sea turtle and juvenile red snapper bycatch thresholds.

 Action 1 looks at modifying the method used to collect vessel position data for the Gulf of Mexico shrimp fishery. As a note, the types of data and amount/timing of data collection would not vary between alternatives. Consistent with current requirements, the permitted vessels selected to participate must also provide NMFS with the following: the size and number of

shrimp trawls deployed for each set and the type of bycatch reduction device and turtle excluder device used in the nets. Compliance with these requirements and the requirement to submit vessel position data is required for permit renewal.

The first alternative, which is our no action alternative, would be to maintain the current method to collect vessel position data through the cELB units supplied by NMFS. Prior to December 7, 2020, the owners or operators of selected vessels were responsible for the cost of cellular service necessary to transmit the data. As we heard from Dr. Lowther, currently, because 3G cellular transmission is no longer possible, NMFS will collect the memory cards from the units via mail.

Alternative 2, and you will note this looks slightly different from what the committee viewed in June, in that we have two suboptions, and I will get to that in just a moment. Alternative 2 says that the owner or operator of a shrimp vessel with a valid or renewable Gulf shrimp moratorium permit would be required to install an approved VMS that archives vessel position and automatically transmits that data, via cellular service, to NMFS.

Option 2a is, if selected by the Science and Research Director, the owner or operator of a shrimp vessel with a valid or renewable SPGM would be required to install an approved device, as defined in the alternative.

Option 2b would say that all owners or operators of a shrimp vessel with a valid or renewable SPGM would be required to install an approved device, as defined in the alternative. Just as a reminder, for committee members, and as background information for new council members, here, with Alternative 2, when this was brought to the committee in June, it provided options either for cellular or satellite, and, at the June meeting, the committee made a motion, which was then accepted at Full Council, to only allow for cellular service.

 With Alternative 2, I know there's a lot of information on this slide, and so I will try to sort of piece out sort of the key aspects, and the first part being that owners or operators of vessels with more than one permit requiring VMS would need to comply with all of the requirements for each permit, as could be the case with Gulf shrimp vessels that possess permits in other fisheries with VMS requirements.

As of July 21 of this year, of the 1,360 vessels with a valid or renewable SPGM permit, 465 had permits in other fisheries. Of

those 465, an estimated 119 are required to comply with VMS requirements in other fisheries, and we have a list below, and it's also provided in the framework action, in terms of what those additional permits would be.

I will note, for instance, that the majority have South Atlantic rock shrimp limited-access permits, eighty-three of the 119, and it is of note that, with that permit for the South Atlantic, satellite is the only option for VMS.

In terms of the new options under Alternative 2, and you will see them under Alternative 3, which was added at the June meeting, and so, under Option a, program costs would be imposed solely on the subset of the industry selected to participate, and that is the way the program was run previously with the cELB transmitting via the 3G cellular network.

Option b would provide census-level data in the EEZ, rather than a subset of data, for estimating total effort and monitoring the sea turtle effort threshold. Option b also avoids the assumption that a representative sample of the fleet now would continue to be representative of the fishery in the future, without any sort of need to re-draw that sample periodically.

Alternative 3, as I mentioned, was added at the June council meeting, and this says that the owner or operator of a shrimp vessel with a valid or renewable SPGM would be required to install an approved electronic logbook that archives vessel position and automatically transmits that data, via cellular service, to NMFS.

You will see the same options here as we went through for Alternative 2, 3a being that, if selected by SRD, the owner or operator of a shrimp vessel with a valid or renewable SPGM would be required to install an approved device, as defined in the alternative. Option 3b says that all owners or operators of a shrimp vessel with a valid or renewable SPGM would be required to install an approved device, as defined in the alternative.

 One thing that I would like to note here, particularly if there's discussion at the end of the presentation, is the IPT that's working on this framework action has requested clarification on what would be defined as an approved electronic logbook, so the IPT members would know what devices we could analyze within the document, as we look forward to developing Chapter 3 and Chapter 4.

The next slide simply shows a range of costs for VMS units that

use either cellular or satellite transmission that have already been approved or are undergoing approval by the VMS program, and this was a slide that was presented back at the April council meeting by Dr. Gloeckner. I will note that Appendix C in the framework action has the list, full list, of approved VMS units for the Gulf for-hire fisheries, and just noting the items that will need to be further examined, as we develop the framework action, include transmission costs, which would be based on the ping rate, which is currently every ten minutes, and the lifespan of a typical VMS unit.

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Again, this is what was provided at the April council meeting, and, again, looking at -- In this case, it's cellular, and it's the only option being considered, and we would need to look at things like a hardware costs estimate, transmission costs, and so forth.

This is a draft Action 2, which is new for the committee, and I have some further discussion, in terms of thinking about this draft action as we proceed through the slides, and so, of note, an alternative in this action would need to be selected only if VMS is selected in the preferred alternative of Action 1.

Alternative 1, which would be no action, would be that no power-down exemptions for the vessel position data reporting program selected under Action 1 are permitted. Alternative 2 would state that an owner or operator of a vessel subject to the requirement to have a VMS operating at all times, as specified in Action 1, can be exempted from that requirement and may power-down the required VMS unit if the vessel would be continuously out of the water or in port for more than 72 consecutive hours. For the purposes of this alternative, "in port" means secured at a land-based facility or moored or anchored after the return to a dock, berth, beach, seawall, or ramp.

We have one more alternative, and so Alternative 3 says an owner or operator of a vessel subject to the requirement to have a VMS operating at all times, as specified in Action 1, can be exempted from that requirement and may power-down the required VMS unit if the vessel would be operating outside of the U.S. Gulf of Mexico waters and so, for instance, if they have moved over to the South Atlantic side.

This is another example relating to when the device would be powered-on, and this is within the VMS requirements for the South Atlantic rock shrimp, and I just wanted to note here that they state specifically when on a trip in the South Atlantic,

and so this is one of the other questions that we would like to pose to the committee, which is should we include language in Action 1 that says, quote, when on a trip in the Gulf of Mexico.

Then, from there, explore power-down exemptions that you have seen in Draft Action 2, and, if so, you could certainly direct staff to do that, and, if there are any other exemptions that aren't mentioned in this draft action that you would like for staff to explore, please also let us know.

I will pause there, Madam Chair, for any questions that you or the committee have or any discussion about some of the questions that we have posed to the committee.

CHAIRMAN BOSARGE: All right. Chairman Frazer, are there any hands up in the room?

DR. FRAZER: Mr. Diaz.

MR. DALE DIAZ: Thank you, Mr. Chair. Dr. Freeman, I guess I'm thinking about the purpose and need here, and so the purpose and need, towards the end of it, it says the council' and National Marine Fisheries' scientific ability to estimate and monitor fishing effort in the Gulf shrimp fishery while minimizing the economic burden to the industry to the maximum extent practical.

Now, when I read that in the purpose and need, it's hard for me, when we get to Action 1, to think about anything besides the Sub-Option a, where, if they would be selected by the Science Research Director, we would only have it on a subset of the fishery, because, to me, the purpose and need were saying that we're going to minimize, to the maximum extent practical, and, if there's a way to get enough people in a subset to give us the information we need, then it almost seems like that's the only way to go, with the way the purpose and need is written, in my mind, and are you thinking about that in a different way, or have you all had any discussions about that, Dr. Freeman?

DR. FREEMAN: There's been minor discussion. In terms of what you're asking, there certainly have been some, and, at this point, we were kind of looking to see if this was a consideration by the council, before we explored that further, in terms of what the full economic impacts would be.

Thinking about your question though, generally, it would certainly reduce the economic burden, in terms of the device costs and transmission, in terms of the industry as a whole, although certainly there would be a subset of the industry that sort of bears the full cost, in a way, and so I guess I'm thinking, rather than everyone having to purchase them and pay for transmission, only a subset would have to, and so there could perhaps be some feelings of unfairness by members of the industry, and so, again, these are just initial thoughts, but we could certainly discuss that further in the IPT.

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MR. DIAZ: Right, and I appreciate that, and I would like to hear from the Science Center folks of a subset, but they would have the authority to authorize it all the way up to all of the folks, if they needed to.

A friend of mine has a saying that he says, and he says, you know, Cadillacs are nice, but a Pontiac will get you where you need to go, and that's what I am thinking about whenever I read the purpose and need, and maybe, if the Pontiac will do what we need, we should at least consider it. Thank you.

DR. FRAZER: Mr. Schieble.

MR. CHRIS SCHIEBLE: I would like to speak in agreement with what Dale is discussing here, and I think we're looking at what's the function of this, and the function is to give us shrimping effort in the Gulf, and, originally, it's a subset of I guess around 500 units or so, to begin with originally, and we can't come up with a catch effort until we get the trip ticket data anyway, and there's a delay in receiving the trip ticket data to calculate that catch effort.

To me, it seems like, if we're reducing economic burden in the fleet, the current system in place, with the SD cards, it would seem to give us that data that we need, if we're still waiting on trip ticket data to come in anyway, and so I don't see what, I guess, an upgraded system would give us any benefit, unless we had some sort of expedited trip ticket landings data to go with it, and maybe I can get some help on that.

DR. FRAZER: We have Mr. Strelcheck's hand up, unless, Matt, you wanted to address that, or just go ahead and move on to Andy.

DR. FREEMAN: Sure. I will let Andy respond first, and that's fine.

MR. ANDY STRELCHECK: Well, I will partly respond, and I think the Science Center can certainly weigh-in better. I think the challenge for us, with the current approach, is it's determined to be a representative sample, but that, essentially remains static then through time, because those units are onboard the

same vessels for an extended period of time.

 There is some changes, as permits transfer, but, at the end of the day, those vessels are then achieving the burden of the cost to then collect this effort data. If there was a system in place where we're rotating, from year to year, who is responsible for having those devices onboard those vessels, then you're getting more into kind of a random sampling of the fleet as a whole.

I am not arguing in support or opposition to whether we should do census versus representative sample, but I think that's just the challenge, is that it's not statistically designed in a way that's flexible enough to be able to move those devices from boat-to-boat, from year-to-year, to get that representative sample over time.

The comment I guess I wanted to make is I wanted to go back to what Matt mentioned with regard to Alternative 3, and he said the IPT was looking for guidance on what's defined as an approved electronic logbook, and I made the point, at the last meeting, that, regardless of what you call this, by definition, it still appears like Alternative 3 is meeting the definition of a VMS that has been defined by National Marine Fisheries Service, and so Alternative 2 and Alternative 3 are one and the same with regard to what they're trying to accomplish, but we're calling it something different, and potentially then adding complexity with technical specifications.

I just wanted some clarity, maybe from Matt first, as to whether that was the IPT's interpretation and what exactly you were hoping to get from the council with regard to Alternative 3 clarity.

DR. FREEMAN: Certainly. I see that Ms. Bosarge's hand is up, and I am guessing she is seeing this as a good segue for her discussion items, but I will just respond, real quickly, before I hand it over to Ms. Bosarge. Yes, that is the way that the IPT was currently interpreting the language in Alternative 3, and so we were inquiring, in essence, that, if there was a different definition than what we were viewing, that sort of clarification would help us, again, as we move forward into Chapters 3 and 4, and so I will, at this point, turn it back over to Ms. Bosarge.

CHAIRMAN BOSARGE: Thank you, Dr. Freeman, and I think you're right. I think that, when I go through that next presentation with the comparison table on the type approval specifications

for implementing a VMS requirement in the Gulf shrimp fishery, versus type approval specifications for continuing the current ELB program that we have, I think it will become more clear at that point.

I will save those comments for later, but I would like to back up to the conversation that we were having about the Option a and b, which is in Action 1, where we're discussing whether we should continue with the approach of using a sample of about 500 boats, and so essentially about a third of the fleet is in the sample, or going to a census-level mandatory everyone has to have an ELB.

We had a presentation, at our last committee meeting, from staff, and staff had some extra slides in there that NMFS had requested that the council consider these other topics and whether we wanted to address those in the amendment or not, and Dr. Freeman went through those, and we passed a motion, in committee, where we added alternatives to the document, and we passed motions, with Alternative 3, and then we passed a motion which changed the purpose and need slightly.

We did not pass any motions to add a decision point on census versus sample reporting, nor did we even actually address the topic in discussion, where it could have been interpreted that we wanted that added into the document, that we wanted options added into the document, and it kind of speaks to a bigger point about this document in general.

I have some reservations that the council's feedback is not really being taken and weighed in the IPT discussions. This is a document to collect effort data in the shrimp fishery, and the committee was very clear that we wanted a reasonable range of options for collecting -- For continuing to collect and analyze effort data in the shrimp fishery, and we gave some possible options that could be considered, as they are considered in other commercial fisheries in the Gulf, and it's what is used in the shrimp fishery in the Southeast, a different shrimp fishery.

 When we received the document back from the IPT, we had status quo and one alternative, to put a VMS requirement on this fishery, and that's the only way that you can get effort data for the shrimp fleet, is through a VMS, and I have some big reservations.

I didn't say anything last time, and I let it go, and we simply passed a motion to add a different alternative, to at least consider continuing the program that we have, rather than

implement a VMS requirement, which then comes with a whole host of other questions to be answered, which you saw Matt start going through in this presentation, and so, Matt, I guess my question to you is should this Option a and b say "draft" next to it?

DR. FREEMAN: Yes, ma'am. As you were speaking, I was thinking that was an excellent point, similar to Action 2. In theory, they are drafts, where I suppose it gets a little tricky, and it's certainly, at a minimum, Option b would not be a draft, because that would sort of be the status quo, so to speak, and I apologize if I didn't clarify that well during my presentation, that we were simply bringing Option b in.

As you mentioned, unfortunately, we ran out of time, and we didn't get a chance to discuss it in June, and so we were simply trying to develop that more, so that the committee could have a discussion of whether or not you would like an Option a and Option b or if you would like us simply to go back to the previous language, basically incorporating Option a directly into the alternatives.

CHAIRMAN BOSARGE: Okay, and so we'll give you guidance on that, and my guidance would be that I went back and read the committee discussions the last time that the shrimp industry made a change to these devices, and the council had these same discussions, right, of should we go to a census rather than a sample.

What happens is you start to go down this rabbit hole, right, and so the shrimp fishery has a substantial number of latent permits, permits that are just sitting there that are not actively being fished, and, the last time I heard the number, it was somewhere around 300, and so a quarter of the permits are latent, generally speaking.

Now, you're going to put that burden on this monthly fee and putting a device on the boat and keeping up with it on people that don't even use the permit, number one. Number two, when you say that it equally spreads the burden, so that everybody has to bear the burden, well, I will tell you, from my personal point of view, I wouldn't be in favor of that.

 Right now, we carry an ELB on two of the five boats that we have. If you went down this road, then I have to bear the economic burden of putting it on all five, and I'm not the only one in that position. There are multitudes of fishermen in the Gulf that have more than one shrimp boat.

I can't see where this fits with the purpose and need, and I guess my bigger point here is we have a system that is not transmitting right now. We started this document, and we're behind the eight-ball already, and we need to try and solve the problem that's in front of us right now, and, if the council wants to come back at a later point in time and make some wholesale changes and examine the relative nature of the distribution of the sample, I think that's a great idea.

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However, I don't think now is the place and time, and so I would recommend that the document reflect that it's a sample and that that sample -- That the current sample stays just as it is and, at this point, we're not pursuing a census-level report. We may in the future, but, at this point, we need to address the pressing issue that is at hand.

DR. FRAZER: Ms. Bosarge, I see that Chris Schieble has his hand up.

CHAIRMAN BOSARGE: Yes, sir. Go ahead.

MR. SCHIEBLE: To that point, I agree that I think -- You know, Andy made a point about the cost being shared among the group, but also it seems that the census level is a bit imposing, and especially since the document -- I was confused by the fact that these options were put in there to start with from the last meeting, and I thought I missed something, and I didn't quite follow how this got here in the first place.

 Secondly, we're not after an in-season management on the shrimp fishery during the season, and I don't see what the issue would be with having these SD cards returned, with a bit of a time lag that currently exists anyway, and so it seems that the current program provides the data that you would need, and further testing of this, as we heard in the presentation, would seem to be prudent.

DR. FRAZER: Okay. Andy Strelcheck.

 MR. STRELCHECK: Thanks, Tom. I guess a couple of comments. One is Leann is certainly arguing the case as to why this wouldn't be selected as a preferred. We can include this in the document for consideration and base the rationale for whatever the preferred choice is, based on comments like Leann's and others during the debate, and I guess my question is, when the IPT modified this, I assume Alternative 2, at one point, said if selected by the Science and Research Director, without the suboptions below it. If we don't consider these as new options in

the document, that would have to be clarified in the amendment, with regard to the current selection process. Is that correct, Matt?

DR. FRAZER: Dr. Freeman.

DR. FREEMAN: I apologize, and I am trying to switch back and forth to write down the minutes, and could you just ask your last question one more time for me?

MR. STRELCHECK: Option 2a, or 3a, speaks to the selection process by the Science and Research Director, and I don't recall what the previous version of the amendment -- If that was language that was included as part of the alternatives, but, essentially, Leann is commenting that options shouldn't -- They don't need to be included here.

If we don't, obviously, choose to include them, then Alternatives 2 and 3 need to be modified to say, "if selected by the Science and Research Director", and so I just wanted to provide some clarity there, in terms of how we would proceed. My preference is to include the options, but the council discuss, obviously, the preferred, and ultimately make their decision based on that record that the council has built.

DR. FREEMAN: Yes, sir, and that was correct. In the previous version, Alternative 2 -- Again, we didn't have Alternative 3 until the June meeting, and it was something that was proposed by the committee, but the language of Alternative 2 began with a phrasing of something along the lines of "if selected by the Science and Research Director," and then it went into what's remaining under the current Alternative 2.

As you stated, yes, we took that portion out and made it Option 2a and then developed an Option 2b as another option for further consideration by the committee.

CHAIRMAN BOSARGE: Matt -- Can I jump in, Chairman Frazer? Is there anybody else with their hand raised?

DR. FRAZER: Mr. Gill and then Mr. Diaz.

CHAIRMAN BOSARGE: Okay. Go ahead. I will wait my turn. Go 44 ahead.

46 MR. BOB GILL: Thank you, Madam Chair. I appreciate it. As you 47 know, I am not a member of this committee, and I appreciate the 48 opportunity to make comments. You all know that I'm a newbie,

and so I have not been privy to your prior discussions, or involved with the details prior to this, and so I come at this looking at what was in the briefing book and trying to get up to speed as to my reactions.

I guess, coupled with that, some conversations with folks to better understand what was happening here, but I come from the position that the need is to collect effort data in the shrimp industry and get it to the Center in a timely manner, and the previous system worked very well, and the industry worked closely with the agency to make that happen, and they have good cooperation there, too.

 Then I look at this document, since we have to do something to continue that cooperation, and my immediate reaction, and I am not nearly as diplomatic as Mr. Diaz, but this is massive bureaucratic overkill. The whole document is focused on a VMS system.

Well, the VMS system -- And, as part of that, it goes through OLE, and is about enforcement, as Chris mentioned, and that's not the situation here. We're trying to basically solve the need of continuing to get the data from the shrimp industry on effort to the Center, and no objections there, but solely looking at a VMS system, which is designed for a different purpose, as Dale pointed out, doesn't even comply with the purpose that is stated, and so what we have is a document here that is going down a different track than even stated initially.

I think that the document is massively misconstructed, and I think correction is needed to get it back on track to accomplish the need that is trying to be accomplished, and I think that correction starts here at this committee, and so I think there is a number of things that could be done, but I think, from where I sit, this document is massively misdirected. Thank you, Madam Chair.

CHAIRMAN BOSARGE: Mr. Diaz.

MR. DIAZ: Thank you, Mr. Gill, for your kind words. I don't know if I say things good or not, but I wish I had your understanding of everything, which that's where I am struggling, is to understanding everything.

What I am trying to think about is the speed of this document and whether things need to be in there or not. I am debating on whether or not we should take Options 2b and 3b and put them into Considered but Rejected or leave them in here, and I guess

I would like to hear maybe some other thoughts on people on the committee.

 I guess the only advantage I could see to really leaving it in here right now is we have pointed out that, if we go with the Option 2a and 3a, a sub-section of the shrimp fishery is going to have to bear that economic cost that other people may not have to bear. If 3b and 2b is in here, at least people can see that we considered everybody having to do it and then maybe only a subset having to do it, but, anyway, I am curious to see what other folks' thoughts are on the committee. Thank you, Mr. Chair.

DR. FRAZER: Leann, I see a couple of hands, and I will go in order for you. I see John Walter, Dr. Froeschke, and then Robin Riechers.

CHAIRMAN BOSARGE: Okay. Let's go to Dr. John Walter and Dr. Froeschke and then Mr. Riechers, and then, if you'll circle back to me, I would appreciate it.

DR. FRAZER: Will do.

DR. JOHN WALTER: Thank you, Madam Chair. Good day, everyone. Part of, I think, the reason that we have got this before us is the presentation we'll get next on the bi-op, and, in the bi-op, it does say that effort will be at the same level or greater than, effort monitoring, than in the last ten years, and so we've got a requirement to at least maintain what we've got, if not improve it.

At least the way the agency has gone with a lot of these other effort monitoring is to improve how it's collected, in particular the hardware and software combinations that are more robust than even the 3G units that are there that we now are not sure if they're getting us all the data we need, particularly because of the antennas may be declining in performance.

That improvement -- An additional part of the improvement there to monitoring bycatch is being able to get it spatially and temporally and to know where it's occurring in space. We see that that's particularly important, as that may be localized for a number of species, and we also see the importance of the spatial and temporal information for being able to inform things like wind siting, and so having that kind of spatial and temporal information gives a lot of options, and it means that there's an incentive for improving the quality and amount of effort data that is collected.

Systems such as the VMS would allow for that, and I think part of the reason that it's on the discussion is because those systems have been tested and shown to work in a number of other fisheries, and so I look forward to continuing the conversation, but I just wanted to explain and give some context to the

purpose and need, from the Science Center's Thanks.

DR. FRAZER: Dr. Froeschke.

DR. JOHN FROESCHKE: Thanks. That's a good segue to the points that I was going to make, and I just wanted to give a little insight into some of the IPT discussions and things about how we talked about these alternatives and why they're here, and, as Dr. Walter stated, we do have an obligation to either maintain or improve, and so part of the NEPA requirements for a document is we're to develop a reasonable range of alternatives for the council to consider.

perspective.

We sort of have that bookend of what minimum things we would have, and, on the other end of that, perhaps the census level is commonly used in other commercial fisheries, and so does seem to be within the reasonable range, as we discussed, and, in terms of what are the practical benefits, there are a couple of practical benefits to this, if we were to use it, and, again, I'm not advocating, but I'm just providing the information on things that we're discussing.

In general, the effort information is at least used for red snapper management and things, and that information from the sample, as we know, has to be scaled up. In order to have that scaling process right, you have to assume that the sample that you have is representative of the whole, and so both at the time that that sample was drawn and in the future, and so, if the composition of your fishery changes and things over time, you may need to re-draw that sample.

In practice, I don't think that we're doing that, and I'm not sure at what time the sample that we currently have was drawn, and so we did have some discussions about, well, is that correct now, and will that be correct X years in the future, whereas the census-level collection would you get away from that particular issue.

DR. FRAZER: Mr. Riechers.

MR. RIECHERS: I think it was Mr. Gill that wanted to hear some

of the sentiments of the committee, but I fully am in agreement with both Mr. Schieble and Dale and others here who have suggested that we need to take the most expedient approach to solve the current problem in front of us.

This document started because of the 3G to 5G switch that then had its own set of problems, when the ELBs were truly working before that, and would work again, and they were always the lowest-cost alternative, and, while we certainly want better data as a whole, when we can get it, we also still have to remember that these are actual costs to actual production units who are trying to make a living in this fishery, and, when we apply it to every vessel, the cost for an individual may be spread out over more individuals, but it's still an overall cost to that unit of production.

As far as the sampling goes, there are many ways to work towards that sampling issue, if that's the problem that we're trying to address, whether that's re-draw the sample every year, whether it's re-draw it every three years, but there is other ways to deal with that issue as well, and so I do think we just -- While I appreciate the IPT thinking of all these items and ways to improve the overall collection, if it is an expedient approach to solving the problem at-hand, by adding more things here, we're probably not going to get there quicker, is all I would suggest, and it takes us a long time to get stuff through this council anyhow, and, when we start adding things, it will just take longer.

DR. FRAZER: Thank you, Mr. Riechers. Leann, I will point it back to you.

CHAIRMAN BOSARGE: Thank you. I would like to make a motion, so we can move on to some other things here. I would make a motion that we do not incorporate Draft Options a and b in Action 1 into the draft framework amendment. If I can get a second, I will quickly elaborate.

DR. FRAZER: Okay. It looks like you've got a second from Chris Schieble.

 CHAIRMAN BOSARGE: By my calculation, it's 11:17 right now, and so we have thirteen minutes left in this committee to actually make it through the true meat of this document, what we need to be focused on, and that is how to continue collecting effort data in the shrimp fishery the way that we have been and keep that process moving forward and continuing.

Instead, we've spent all of our time thus far, most of it, the committee discussion, around this idea of sample versus census, and that's going to continue. If you put this in the document, that trend is going to continue at each committee meeting, and I see us going further and further down rabbit holes with this, not to mention that we haven't even gotten into discussions about the magnitude of that data that would be coming in and who has the capacity, or does not have the capacity, to handle that and what changes would have to be made to even accept that level of data.

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At this time, I don't think it needs to be in this document. If this council wants to address that at a later point in time, I think that's a discussion that should be in a separate amendment, where you truly have time to flesh out all of those different things and come up with a path forward that works the best.

DR. FRAZER: Okay. I am not seeing any other hands at this time. Excuse me. Mr. Strelcheck.

MR. STRELCHECK: I want to comment that I am supportive of Leann's motion, with the caveat that we come back to this at a later date, because I think this is an important discussion, in terms of how this fishery might operate in the future and how we collect this effort data and the number of participating vessels.

DR. FRAZER: Thank you, Andy.

CHAIRMAN BOSARGE: Yes, sir, Mr. Strelcheck. I do think that, eventually, at some later date, it is something that needs to be looked into, but, at a later date, I don't mean in this document. This document has a purpose, and we need to stick to it and stay on task.

DR. FRAZER: Ms. Bosarge, I am not seeing any other hands.

CHAIRMAN BOSARGE: Mr. Chairman, I'm going to let you call for the vote, since you're in the room, and I think that would be the most efficient.

DR. FRAZER: Okay. It's a committee motion and a committee vote. Are there any members of the committee that are opposed to the motion? Not seeing any, the motion passes. Leann, you can carry on, if you wish.

CHAIRMAN BOSARGE: Okay. Just to be clear, that last motion

will take Options a and b out from underneath both Alternative 2 and Alternative 3. All right. Now, I would like to come back to what Matt was talking about towards the end of his presentation.

There was another draft action that talked about -- There is two potential paths forward here, as far as when the device needs to be on and not on. That is a council decision, whether we're going to require this device to be pinging 24/7/365, or whether we would like to continue this program operating in the way it has been operating, which is, when the vessel is on a fishing trip, that's when it has to be pinging, and Matt gave us some language from the South Atlantic requirements, which say just that

The device has to be pinging when on a fishing trip in the South Atlantic, and so I think that's the most streamlined way to approach this. I think it seems kind of like overkill and redundant and extra work to say, no, we're going to make it be on 365, and then we're going to start writing in exemptions for that.

If you just want it to be on when the boat -- If you need effort data when the boat is shrimping, then it needs to be on when shrimping, and we have never had to have the device on when it's port, at the dock, and it's really not conducive to the way we operate. We're not putting the boat on a trailer and bringing it home every day. We're out for a month at a time, and we come into various docks, when we come in.

We have a couple of boats that have not been home in over a year, and one that hasn't been back to our homeport in almost two years, and, when we tie up in different ports, we don't necessarily have shore power. Some people don't even have shore power at their home dock, and so the idea of keeping this thing pinging for a week or two, when you're in between trips, on some sort of battery power, that, to me, it just don't seem functional or feasible.

 I would like to propose another motion that, in Action 1, to add the following language to Alternative 2 and Alternative 3. After the verbiage that archive vessel positions -- I am going to give staff a minute here. Okay. Put, in quotations, "when on a fishing trip in the Gulf of Mexico".

Once you do that, I think that provides additional streamlining to this document that maintains the status quo, as far as shrimp effort reporting, that we report location data when on a fishing trip and not when at the dock, and it just makes common sense, and then, by doing that, you don't have to add another action item into this document that then goes in and tries to come up with a whole list of power-down exemptions for the fishery, and I think this is the most streamlined approach for that, if I can get a second.

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DR. FRAZER: It's seconded by Mr. Schieble. Leann, it looks like we've got a hand up by Mr. Anson. Kevin.

 MR. KEVIN ANSON: Thank you. I am in support of the change, but, to make it consistent, I guess, with the requirements over in the South Atlantic, and I think we saw something here during the committee meeting about language relative to the VMS, and it said they had to be on a trip, and not a fishing trip, and so I'm just wondering if that is the case, if I'm remembering it correctly, or if this would be in conflict or -- I know it's Gulf of Mexico and the South Atlantic, but just to be consistent.

DR. FRAZER: Ms. Levy.

MS. MARA LEVY: Thank you. Just to that point, in the regulations, that 622.2, "trip" is defined as a fishing trip, regardless of the number of days, blah, blah, blah, and so it seems to be already incorporated in the definition, and we could add the same language, but I think, when we write the regs, they will mean the same thing.

CHAIRMAN BOSARGE: Mr. Chairman, if I can chime in here, and so I actually changed it, Kevin, from "trip" to "fishing trip", for the exact reason that Mara said. I was trying to make it consistent with some of the wording that is currently in our reporting and in the regulations, and, right now, it says, in our regions in the Gulf, must provide information for any fishing trip, which includes effort, and so I was trying to keep that at least consistent.

DR. FRAZER: Okay. Ms. Bosarge, I have a hand up, or two hands, from Mr. Riechers and then Mr. Strelcheck.

MR. RIECHERS: I think it still didn't solve one of the issues that Kevin may have been raising, if I heard him correctly, which was the conflict where we're suggesting it now, because of this definition, and I think he's suggesting that it would have to be on if they're in the South Atlantic fishing, as opposed to what we're trying to do is think about what's going on in the Gulf. I may have heard him wrong, but that's what I thought he

-- One of the points he was making here, and I think we still may need to address that, if we want it to not apply to that South Atlantic trip.

DR. FRAZER: To that point, Kevin?

 MR. ANSON: Well, I mean, yes, I was bringing that up for consistency purposes, but I thought that Mara had read the definition, and the definition of "trip" for the South Atlantic was specific to fishing trip, and so I don't see this as being in conflict then, in that case, if that's how I heard Ms. Levy respond to that.

MS. LEVY: Just that, in the 622.2 definition, it applies to both the South Atlantic and Caribbean, and so, under all circumstances, unless you're going to specify it differently in a particular provision, "trip" means a fishing trip, and then the rest of the definition.

DR. FRAZER: Thank you, Ms. Levy. To that point, Kevin?

 MR. ANSON: To that point, and so I guess, as we're talking about trying to trim this document and make it very specific to the task at-hand, if you will, and then potentially coming back later, as Andy suggested, to address these other issues, but more diversity, or wider coverage and such, I mean, we do have, with other fisheries that utilize VMS, that there are other times when they should have the VMS operating, and it doesn't pertain just to fishing trips, and it's when the vessel leaves the dock, and so, although there are some differences here with shrimp vessels, in that they don't necessarily tie up and stay tied up to a dock, and they have larger trips, typically, where they will go from one port to another, and I think that's just something that we need to consider as we deal with that and VMS and define what trips are or when the units should be on.

DR. FRAZER: Thank you, Kevin. Mr. Strelcheck.

MR. STRELCHECK: I am in favor of the motion, and I did want to revisit the discussion that we had at the last council meeting with regard to Alternative 2, and I know, Leann, you were adamant to remove satellite service from Alternative 2, but I would like to consider re-adding that to this alternative, so that it could be a cellular or satellite service, and my reasoning for that is that we have, obviously, approved VMS devices, and this allows for, obviously, the maximum flexibility in choices for the industry to make.

We have a number of shrimp permit holders that have, obviously, satellite VMS for the rock shrimp fishery, and so this would allow them to potentially use those devices to satisfy this requirement, if Alternative 2 is selected as preferred.

DR. FRAZER: Okay. I am not seeing any other hands, Ms. Bosarge, and so I will turn it back to you.

MS. BOSARGE: Yes, sir, Mr. Chairman. You can go ahead and put it up for a vote, if you don't see any other hands.

DR. FRAZER: Okay, and so there's a committee motion on the board. Is there any opposition to the motion? Not seeing any, the motion passes. Leann. Leann, I'm sorry, but Dr. Simmons would like to ask you a question pertaining to your earlier motion.

EXECUTIVE DIRECTOR CARRIE SIMMONS: Thank you, Madam Chair. Bernie, can you please go back? We thought we heard you say Option a to the previous motion, and we just want to make sure that's what was on the screen was correct that was voted on. Do not incorporate Draft Options 2b and 3b in Action 1 of the draft framework, and so we thought we heard you say 2a.

CHAIRMAN BOSARGE: Hold on, Dr. Simmons. Let me get to it in my -- Keep that on the board, and I am turning to my paper version of my document here. It's Option 2a and 2b and 3a and 3b is what it is, and I think what I said is Options a and b in Action 1, and so you have an Option a and b under Alternative 2, and you have an Option a and b under Alternative 3, and so, essentially, what that motion did is reject the proposed draft revisions that staff presented to us in the PowerPoint presentation, and it retained -- Therefore, it retained the version of the Alternative 2 and 3 that was agreed upon by the committee at the last committee meeting and by the council at the last council meeting.

DR. FRAZER: Dr. Simmons.

EXECUTIVE DIRECTOR SIMMONS: I think we've got it in that, is to just make sure that we put that in the committee report, that, essentially, the 2a and 3a would go back under the alternatives, correct?

DR. FREEMAN: That's my understanding. The language about if selected by the SRD would be reincorporated into Alternatives 2 and 3 itself.

CHAIRMAN BOSARGE: Yes, that's right, and this is confusing, because we received a document that never actually presented us with the changes that we made at the last committee and council meeting, and we received a document that changed it further from that, and that's why this is confusing, and that's why I had a little bit of reservation that this didn't say "draft". We should have had a document that gave us what we asked for at the last council meeting and then proposed some draft revisions to that, maybe in yellow or something, like we've done in other documents.

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Okay, and so I have one more motion, and I don't -- I guess we're going to have to go through the comparison table during Full Council, and so I would at least like to make another motion that I think will help give some clarification to the difference between Alternative 2 and Alternative 3 in the document, because, to me, it's even confusing, as Mr. Gill said, just to industry.

When we just had Alternative 2, it was confusing as to what that meant, the way it was written, in my opinion, and so I would like to make a motion in Action 1, Alternative 2, to add the following sentence to the beginning of Alternative 2: "Implement a VMS requirement for the Gulf shrimp fishery", because that's what that alternative is essentially doing.

We don't currently have a VMS requirement in the Gulf shrimp fishery, and that spells it out, in a nutshell, for any bystander or stakeholder to read it and understand what that does, and then you'll have your language that's currently in that alternative that further fleshes out what that means, if I can get a second, please, sir.

DR. FRAZER: It's seconded by Mr. Schieble. We have a comment or a question from Mr. Strelcheck.

MR. STRELCHECK: In response to Leann's comment that we don't have a VMS requirement in the Gulf of Mexico, I guess, by definition, that would be the case, with regard to the current 3G units, and I think a lot of the confusion that we're experiencing over this issue is VMS is being classically viewed as satellite VMS units and not these new cellular devices that have emerged on the market and the work that the agency has done to come up with technical specifications and an approval process for the cellular devices.

I do want to caution, when we say something like implement a VMS requirement, because, by definition, these cellular units that

are now being used are considered vessel monitoring systems, and it's very clear, with regard to our technical specifications and definitions, that that is essentially what they're accomplishing and why I made my comments earlier with regard to Alternative 2 and Alternative 3 really not being different with regard to the definition of a cellular vessel monitoring system unit. We're calling them something different, but, in reality, they are very much the same thing.

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DR. FRAZER: Thank you, Mr. Strelcheck. Dr. Freeman.

DR. FREEMAN: Thank you. I just wanted to make sure that, with this new language in Ms. Bosarge's motion, that it reflects what was just added to Alternative 2 about when on a fishing trip in the Gulf of Mexico.

DR. FRAZER: Leann.

DR. FREEMAN: Because we just modified Alternative 2 in the previous motion, and so we need to make sure we carry that language forward.

CHAIRMAN BOSARGE: Correct. You would include that "when on a fishing trip in the Gulf of Mexico".

DR. FRAZER: Okay. We can capture that language and intent in the committee report moving forward, and so I'm not seeing any other hands at this point, Leann, and we probably would like to dispense with this motion, if you're willing, and think about what our next step is with regard to the schedule.

CHAIRMAN BOSARGE: Yes, sir. That's fine. Go ahead, Mr. Chairman.

DR. FRAZER: Okay, and so we have that committee motion up on the board. Is there any opposition to the motion? Seeing none, the motion carries. Okay, and so we are into -- Mr. Anson.

MR. ANSON: I apologize, because I know we're at lunchbreak, but, since we have just had some discussion and some back-andforth, and Andy has commented on it, I am just wondering if we ought to, and we don't need to do it right now, but maybe at Full Council, in the Option 2a -- Since there are some vessels, at least, that already have a VMS that might be eligible to be used for this framework action, is they would be required to install -- Maybe have that "would be required to install or have onboard the vessel" or "in possession of an approved device", because there might be a handful of folks that already have that

device, and so it would be, you know, understood that potentially they wouldn't have to go out and get a new device, and they could just use the one they're already currently using, if that's the case. It's just something for consideration and maybe some deliberation during Full Council. Thank you.

DR. FRAZER: Okay. Thank you, Kevin. Something to think about, certainly, before we get there on Wednesday or Thursday. I do want to keep us on track, and I realize that a number of us have kind of lunchtime meetings that we're obligated to attend, and so, Leann, if it's okay with you, I will allow a little extra time on the backside of lunch.

I want to make sure, also, to accommodate Ms. Lee's schedule, and she's going to provide the presentation on the Section 7 consultation, and I would like to at least keep her, if she's willing to give that presentation after lunch, and so we'll go ahead and take advantage of that opportunity. Let's go ahead and take a break now, and I think we will come back at 1:00 as planned, and I will see everybody then.

CHAIRMAN BOSARGE: Mr. Chairman, after lunch, will be going into the comparison table discussion or straight into Ms. Lee's presentation and save the comparison for Full Council?

DR. FRAZER: We would like to save the comparison for Full Council, so we don't disrupt the schedule for the rest of the afternoon. Okay?

CHAIRMAN BOSARGE: Understood. Thank you, sir.

(Whereupon, the meeting recessed for lunch on August 23, 2021.)

MONDAY AFTERNOON SESSION

August 23, 2021

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The Shrimp Management Committee of the Gulf of Mexico Fishery Management Council reconvened on Monday afternoon, August 23, 2021, and was called to order by Chairman Leann Bosarge.

DR. FRAZER: Ms. Bosarge, I think we'll go ahead and wrap up the Shrimp Committee, and I will let you go ahead and introduce Ms. Lee.

CHAIRMAN BOSARGE: The next agenda item is our Section 7 Consultation on the Shrimp Industry and Protected Species with Ms. Jenny Lee, and I am going to turn it over to Dr. Freeman, just very quickly, to let him give us the action guide on this, and then, Ms. Lee, you're free to start after that.

SECTION 7 CONSULTATION ON THE SHRIMP INDUSTRY AND PROTECTED SPECIES

 DR. FREEMAN: Thank you, Madam Chair. For this agenda item, the committee will be presented with a summary of the new ESA biological opinion on implementation of the sea turtle conservation regulations under the ESA and the Authorization of the Southeast U.S. Shrimp Fisheries in Federal Waters Under the Magnuson-Stevens Fishery Management and Conservation Act that was signed on April 26, 2021.

The committee should consider the presentation and ask questions. This information does not require any formal committee action, and so, Ms. Lee, I will hand it over to you.

MS. JENNIFER LEE: Thank you, Madam Chair and committee, for the opportunity to share with you a brief summary of this opinion. A biological opinion, just in case anybody doesn't know, is an analytical document that summarizes the effects of a federal action on ESA-listed species or a designated critical habitat, or both, and identifies NOAA Fisheries' conclusion whether or not the action is likely to jeopardize the continued existence of an ESA-listed species or destroy or adversely modify designated critical habitat under the ESA. It represents the opinion of NOAA Fisheries, considering technical, legal, and policy issues relative to the proposed action.

Every biological opinion we write has essentially the same sections, which is listed on this slide, along with the number of pages in each section, just to give you a quick feel for how long each section is, and so this is just a summary presentation, and I know you're running late, and so I will try to walk quickly, and I won't walk through all the sections, of course, but I'm just going to try to touch on most of them and highlight just what I think you ought to know or some key points relative to the past opinions.

We have conducted numerous Section 7 consultations over the years, as you know, on both our sea turtle conservation regs, in other words our TED and tow time regulations, and then also the authorization of our shrimp fisheries.

This time, we have several reasons why we reinitiated. You may recall we had a May 2012 opinion that considered a proposed rule amending the TED regs, and then we had an April 2014 opinion, and that was the end product of a subsequent consultation triggered when we withdrew those proposed changes, and you also might recall that, in both the 2012 and 2014 opinions, we noted it was not possible to reliably quantify the anticipated take of sea turtles, and we had an explanation and a proxy.

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The news here is that we reinitiated, one, because we had several new listed species, and the green sea turtle DPS and giant manta ray that were likely to be adversely affected, and so I highlighted those, but we also had some new bycatch information, which I will talk about a little bit later, that was developed to better analyze the effects of shrimp fisheries on the sea turtle populations, and then we have the December 2019 final rule, where we required TEDs for a portion of the skimmer trawl fisheries. In addition, we did also have to address some issues raised in an October 2020 court decision that remanded that 2014 opinion back to us.

This just shares -- Let me start over here. While sea turtle conservation regulations -- I am going to start over one more time. Excuse me. The proposed action here is two main components, authorization of the shrimp trawling in the EEZ under the Gulf and South Atlantic's FMPs and then our sea turtle conservation regulations under the ESA Southeast U.S. shrimp fisheries extending regulatory authorization to incidentally-taken sea turtles subject to specific conditions.

What I started to tell you about was the new thing is that we -For this bi-op, the proposed action is limited to over the next
ten years, and so we have opted to limit the life span of the
opinion to ten years, due to a few reasons, the complexity of
forecasting the potential effects of climate change, the
potential changes to sea turtles and the effects of the
fisheries on those increasing and decreasing population sizes.

Just, in general, we believe that the ten years represents a reasonable time period to forecast both the effects of climate change and the effects of the action, and so that's something new, but, despite the ten-year limitation, just so folks aren't confused, our analysis of the effects does consider the effects of these actions and the proposed action that occurs within the ten-year timeframe over a longer period, and so it's just basically truncating our proposed actions so that we can analyze the effects.

This slide just shows you all of the species and their status and critical habitats in the action area. In red are the ones determined likely to be adversely affected, and so those are the ones that we look at further in the biological opinion, and there you can see that giant manta ray is a new listed species that is considered throughout the opinion, and you can also note there that we don't have any critical habitat that we are concerned about, and so the rest of the biological opinion is looking just at listed species.

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We sometimes get questions just about like, well, what about the effects of this other action that's in our area, and so I just threw in this one slide here to acknowledge the environmental baseline section of the opinion, which looks at the past and present impacts of all state, federal, or private actions and other human activities in the action area, and we can just see all the different things that are going on within the action area that are considered.

Here, we have the moving forward into the effects analysis, and, again, we have a few different things here. We have the consultation considers our exemption of sea turtle take, via the sea turtle conservation regs, and the effect they have on listed species.

Then we have the existing sea turtle conservation regulations and their impact and then the federally-authorized shrimp fisheries, and so, basically, for sea turtles, because our TED regs are in state and federal waters and we conserve them throughout both areas, our analyses look at both the effects for state and federal waters, versus our other listed species. We do not actually bear responsibility for the take in statemanaged fisheries, and so, there, we're just looking at the federal waters, but we do consider, again, the effects of our sea turtle regs and how they are applicable to the impacts for those species.

 In Section 5, this is one of the meatier sections of the opinion, and this is where we set the effects of the action on listed species that are likely adversely affected, and this section forms the foundation for our jeopardy analysis, but it's looking at the individual levels here, or individual species effects here, in this first section, and so you can see that all effects were attributed to species interactions with active fishing gear, and the point there is that we don't have vessel impacts, or we don't believe that there are adverse effects to vessels in this bi-op, like some of our other ones, because of the slow-moving movement of shrimp vessels and some other

details.

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Really, we just, for each of the listed species that are likely adversely affected, you can see they have a subsection within Section 5 that summarizes the types of interactions and what we think happens when they are exposed to trawl gears, and then it gets to quantifying the effects to listed species, with estimates of the bycatch and capture and mortality, and we do that first in an annual context, just to provide consistent metrics, so that we can compare.

Probably the most important thing to know is that this bi-op, when it comes to our otter trawl analyses, is quite different from our past ones. Due to data limitations that we have had, it presented issues in calculating bycatch estimates in the past, and we really explored some new methods to use with our observer data for calculating bycatch in otter trawl fisheries.

In the past, we hadn't used observer data, and part of that was because we didn't have the observer program, and it only became mandatory -- I am forgetting what year, but, initially, we just didn't feel that we had enough data to use that, but, with the 2014 opinion, and our inability to find a way to reliably estimate impacts, we worked -- We got together and realized that -- I guess there was a team put together, and, ultimately, we found that a Bayesian modeling approach can effectively estimate bycatch in the shrimp fishery.

It's a good tool for rare-event, data-limited fisheries, and so we went ahead and employed the available shrimp data for shrimp observer and effort data in the Bayesian modeling approach, and, essentially, those are documented in a peer-reviewed publication, Babcock et al. 2018, and so that's our primary source of information.

The other thing that is new is that the Southeast Sea Turtle Injury Workgroup reviewed all sea turtle interactions recorded by fishery observers for the Southeast U.S. shrimp trawl fisheries, to determine post-release injury and mortality percentages. workgroup first determined The that interaction resulted from the current fishery and then followed a procedural directive, which is a process for determining postinteraction mortality of sea turtles that are caught in trawl net and pot trap fisheries, and so that's something new, that calculating post-interaction mortality for each species for try net and standard nets to determine total bycatch mortality.

Then, for our non-otter trawl sea turtle effects, we just relied

on the 2019 final environmental impact statement for essentially our TED rule that analyzed the alternatives to reduce incidental bycatch and bycatch mortality. We did refine the post-interaction mortality analysis that was in that final rulemaking slightly to improve precision, and then the other thing is that the rulemaking didn't look at sea turtle mortalities by species, and so we looked at observer data to break them down by species.

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Not too much novel for the Atlantic and Gulf sturgeon effects analysis. The take is anticipated in the otter trawl, standard, and try nets, but, essentially, we used observer data for those estimates.

giant sawfish, For manta ray and the interactions anticipated in otter trawls only, and we have new bycatch estimates based on the Carlson et al. 2020 estimate, and I did want to point out, in particular, which you will see later in the take estimate, that, for giant manta rays, that we only had one year. Giant manta rays were recorded captured only in 2019, because, prior to that, they weren't identified by species, and so we just had that one year, and so that led to some very highly uncertain estimates, and so I just wanted to acknowledge that.

As I noted in Section 5, we outlined how the proposed action would affect the species at the individual level, and Section 7 is the integration and synthesis of effects, and it's about assessing each of the species' response to this impact, in terms of the overall population effects and whether those effects of the proposed action, in the context of the status of the species and the environmental baseline and the cumulative effects, which I didn't have a slide on, are likely to jeopardize their continued existence in the wild.

 The annual effects that were summarized earlier in this section were extrapolated out for that ten-year time period that I mentioned, and then another thing that we did that was new to this opinion, although we did try in 2014, but we just didn't have the data to be successful, was to project the effects of the proposed action in the near future and over the ten-year timeframe, and we did consider potential changes in both the fishery, and so effort, and then the affected species, and so, in other words, population changes, to what was estimated in Section 5.

With regard to the fishery, we didn't actually expect any substantial increases in participation and effort, but we did acknowledge the actual near-term decrease in effort, as a result

of COVID-19, and that may manifest for the early data, but we did find two species, green sea turtles and smalltooth sawfish, for which the increased population growth could lead to a greater geographic distribution over densities and areas, and so we did look at the increased rate and apply that when we were estimating takes in the future, and so those population increases will lead to being over your incidental take statement, when it really was just a factor of the population.

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This brings us to our incidental take statement, which is often the first part of the opinion that people really look at when a new opinion is issued, and, actually, I apologize, and I skipped a little ahead, and I missed the punchline, but I'm sure you're all aware that we did conclude that the proposed action is not likely to jeopardize the continued existence of any listed species that may be adversely affected, and so my apologies for missing that.

That brings us now to the incidental take statement, and so this where we go ahead and specify the amount or extent of anticipated take, and the ITS also defines reasonable and prudent measures and then terms and conditions for implementing those reasonable and prudent measures.

Again, you can see what we've done here is an anticipated total take over a five-year period, and so you're not looking at annually, but we're looking at a five-year static period that the incidental take statement will be using, and that's, in part, because of how we calculate particularly those new sea turtle bycatch estimates that we're going to be looking at in five-year periods, as opposed to a rolling three-year, for example, like we've done before.

On this slide, it shows the total, and so this would be for all gears, the otter trawl, try nets, and standard, and I will just skip over to the next slide, because, here, you can see all of the take estimates for otter trawls over that five-year period. Skimmer trawl mortality, particularly for Kemp's estimates, are actually higher than skimmer trawl estimates, but you can see here that we break it down by try nets, standard nets, the otter trawls.

Probably the, I guess, take-home is just that, while maybe you're looking at these sea turtle numbers and thinking they are significant, this is actually quite a reduction from the incidental take of turtles in past bi-ops with our new methods. Also, I should point out the smalltooth sawfish and giant manta ray numbers, again, those numbers you can see for the giant

manta ray, and we only have that very small sample, and all of them were non-lethal, and so that's why you see the no mortalities, but, again, those estimates don't have the Bayesian modeling and are pretty uncertain, and so just it's not -- I guess that's all I will say for that, but, for the smalltooth sawfish, if you're comparing numbers, you might think, wow, it looks like suddenly we're taking more than we were last time, and I would just note that it's a different estimate.

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Here, I think I was just -- I don't have a good slide, I guess, to represent it, and that's probably why I had my note on the wrong slide, but, again, I was just going to say that the skimmer trawl mortality, particular for Kemp's estimates, are actually higher than the otter trawl estimates, and that's just because skimmer trawls fish in shallower water, where more sea turtles are present, or at least that's certainly a factor.

In terms of reasonable and prudent measures and terms and conditions, there are four reasonable and prudent measures, and I did not put them on here verbatim at all, and so you can find this, of course, in the opinion, if you want more detail, but, for monitoring, I will say --

Someone had noted, in the previous presentation, about effort, and it says we must continue to monitor the Southeast U.S. shrimp fisheries, in order to document and report incidental bycatch and entanglement of all of our listed species that are adversely affected, and we must provide an update on our bycatch estimates for these species within five years of the issuance of the opinion, and so that's where I was saying we are going to be looking at producing new estimates every five years.

We will continue to use the records from our observer program as a primary means of collecting incidental take information, but, basically, we still have to maintain at least what we're doing for fishing effort and observer data, so that we can continue to be able to estimate the fishery, and especially now that we're relying on observer data.

These should look familiar, perhaps, but we did redo our handling requirements, and there was a Fishery Bulletin that went out with these documents, and so you all should have those, and that was one of the requirements of the biological opinion.

Then the last part of the opinion here, and, actually, usually, I don't put these all down, but, since I think you would find them interesting, and so conservation recommendations specify actions that Sustainable Fisheries can take or request be taken

by our Science Center to minimize effects of the proposed action on adversely-affected species, and so these are conservation recommendations, and these are not requirements, but they are just things that we can do, but I did want to just highlight that there were gear and sea turtle investigation ones, looking at still the investigating the efficacy of new TED designs for small sea turtles, investigating the efficacy of TEDs in vessels less than forty feet in length, and I know you know that we are working on rulemaking for that. The last one is exploring some in-water research.

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Then monitoring and data improvements, and you can see here that it's explore and support solutions and funding options to improve the electronic logbook program in the Gulf of Mexico shrimp fisheries and, again, some targeted electronic monitoring, and so these are all just ways that we think we would be beneficial to improve effort data in our observer and bycatch data for furthering and improving the estimates.

The last slide is, again, this is more education, and this slide is just to show you where you can get some additional information, and we do have a good website now, with a lot of really useful links on it, and we also developed that email, ted.info@noaa.gov, and so, if you have any TED questions, that goes to our Pascagoula gear team, and they forward it to whoever is appropriate for that question, but that's a really good resource, and I think I will conclude with that.

CHAIRMAN BOSARGE: All right. Thank you, Ms. Lee. Chairman Frazer, are there any hands up in the room? I am not seeing any on the board, but, anybody that has questions or feedback for Ms. Lee, feel free to chime in.

DR. FRAZER: Mr. Schieble.

MR. SCHIEBLE: Thank you, Mr. Chair. I'm not sure if you would know the answer to this, but maybe you could hypothesize a little bit and try to figure out what the most recent, I guess, turtle stock assessment is, as far as is the stock continually declining in numbers, or has it stabilized, or is it increasing, and are we seeing more gear interaction in the shrimp fishery, as far as over time. I mean, you showed us the five-year average on interaction and mortalities among the species there, but how is that on a long-term trend, maybe more than a ten-year span, and I'm curious. If you don't know, I understand that, and that's fine, but maybe we could get that.

MS. LEE: I know, in terms of -- I mean, all of our species have

different -- They have different projections, and I can tell you that, again, the green sea turtle, in the estimates, have a -- It's increasing, and that was accounted for in the estimates, and I think I can double-check what was the percentage, but I think it was around a 7 percent increase, but the status of the species section provides our best available information, and there's a particular part in there for each section that talks about population trends and where we think what the trajectory is of the nesting trend, and it's all based on nesting trends.

MR. SCHIEBLE: Thank you. I appreciate that.

DR. FRAZER: I have a quick question for you. Earlier in this committee, there was a discussion about the amount of effort that we might think about for the shrimp fishery in general, and so, when I looked at the numbers that you provided in your presentation, I am assuming that they're average values, but the question really is what is the uncertainty in those estimates, and how is the uncertainty affected by the amount of effort data that you receive that are fisheries related?

MS. LEE: I think the best answer to that question, and I can make sure it's circulated, is the Babcock publication, and it goes through the data and the various assumptions, including effort data, and I think that would answer your question well. I mean, yes, there is certainly uncertainty in the fishing effort, and our estimates are, essentially, multiplying out a catch rate with effort, and so that does have an impact, but I think I would recommend, and I can highlight particular parts for you to share.

DR. FRAZER: Yes, and at your convenience, but, again, what I am trying to figure out is the investment in collecting the effort data extends beyond simply just telling me how many shrimp might have been caught yet, and that's obviously for the policy and management, as they relate to the endangered species, and so okay. Thank you.

MS. LEE: You're welcome, and, yes, absolutely. The effort data is very important and a big component of our estimates.

DR. FRAZER: Back to you, Ms. Bosarge.

CHAIRMAN BOSARGE: All right. Thank you, Ms. Lee, and I did want to definitely echo what you said about the Pascagoula gear team. I think that team has a long-standing relationship with the industry, and I know some of them have retired over the last few years, and we have some new blood in there, but I really

think they do a good job, and so I definitely wanted to commend their efforts, and I know they work a lot on this sort of thing. All right. If there are no other questions for Ms. Lee, then we're going to punt the rest of our agenda to Full Council, and so, Mr. Chairman, I will turn it over to you. DR. FRAZER: All right. Thank you, Ms. Bosarge, and, again, thank you, Ms. Lee, for the presentation. (Whereupon, the meeting adjourned on August 23, 2021.)