1	GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
2	CUDIMD COMMITTEE
3 4	SHRIMP COMMITTEE
5	Webinar
6 7	SEPTEMBER 28, 2020
8	SEFIEMBER 20, 2020
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The Shrimp Management Committee of the Gulf of Mexico Fishery Management Council convened via webinar on Monday morning, September 28, 2020, and was called to order by Chairman Leann Bosarge.

ADOPTION OF AGENDA APPROVAL OF MINUTES ACTION GUIDE AND NEXT STEPS

CHAIRMAN LEANN BOSARGE: I will call the Shrimp Management Committee to order. The members are myself, Mr. Banks, Mr. Anson, Dr. Crabtree, Mr. Diaz, Mr. Donaldson, Mr. Dugas, Mr. Riechers, and Mr. Sanchez.

The first thing on our agenda is the Adoption of the Agenda. Were there any edits or items to add to the agenda? Seeing none, the agenda is adopted as stated. The next item would be the Approval of the April 2019 Committee Minutes, which that's when we had our last Shrimp Committee, and that's found under Tab D, Number 2. Did anybody have any edits to those minutes? I am not hearing anything, and so, seeing no edits, the minutes are approved as written.

Next is our Action Guide and Next Steps, and that can be found under Tab D, Number 3. We have a pretty short agenda today. Dr. Freeman, would you like to take us through the Action Guide, or would you like me to run through that, real quick?

DR. MATT FREEMAN: Certainly, and I can do that. The Science Center will present on analytical requirements, program updates, and reporting options for the Gulf shrimp fishery. Current vessel reporting will be impacted, as cellular reporting through the 3G network is being phased out. The Science Center has also provided background information in Tab D, Number 4(b) to the committee, further outlining analytical requirements and reporting options.

The committee should consider the presentation, review the background information, ask questions of Science Center staff, and then provide feedback to the Science Center on how these changes will affect shrimp industry participants in the Gulf. The committee may then consider development of an amendment, if necessary, to address the options presented by the Science Center.

CHAIRMAN BOSARGE: Thank you, Dr. Freeman. Do we have Dr. Gloeckner, Dave Gloeckner, on the line?

 DR. DAVID GLOECKNER: Can you hear me?

CHAIRMAN BOSARGE: Yes, sir. I can hear you. Are you ready to take us through your presentation?

DR. GLOECKNER: Sure.

CHAIRMAN BOSARGE: All right. You have the floor, sir.

GULF FISHERY ANALYTICAL REQUIREMENTS, PROGRAM UPDATES, AND REPORTING OPTIONS

DR. GLOECKNER: All right. I'm Dave Gloeckner, as Leann said, and I am the Division Director for Fisheries Statistics at the Center in Miami, and I'm actually a little bit new to the shrimp reporting for the vessels, and so bear with me if I stumble through this a little bit. I just gave this presentation last week to the Gulf Commission Data Management Committee, and so hopefully we can move through this quickly and you can guys can take a look at the information that we sent you.

There is four types of shrimp data that are required to complete the very wide array of Southeast Center and SERO outputs, including the regulatory requirements and annual council and industry requests and additional national reporting requirements that we have at the Center, and so that's effort data, bycatch rates, landings data, and then there's additional data for economic and regulatory analyses, and this should be included in the background information we sent you.

The current data collection, we have bycatch rates that we acquire through one observer program, and this is a representative estimate of the average catch per tow of sea turtles, red snapper, and other species. With our current funding level, that covers only around 2 percent, and so that leads to imprecise estimates for most of those species.

The current data collection on landings, economics, and regulatory data, they are collected through dealer-reported trip tickets, and annual gear, landings, and economic surveys as well. The gear, landings, and economics survey are paper-based, and they are mailed annually to permit holders, and so that's not the most efficient use of resources.

 The shrimp landings are currently required to be submitted monthly on state trip tickets, as opposed to the species included in the Gulf and South Atlantic permit, which get submitted weekly.

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For effort data, currently, we have tow-by-tow effort that's derived from time-stamped GPS coordinates, using the 3G cellular electronic logbook system, what we call cELBs, and the coverage is less than 40 percent of the Gulf shrimp fleet, and, since 3G technology is being discontinued, beginning January 1 of 2021, new shrimp effort data collection methods and reporting requirements are warranted.

A little bit of background on dealer permitting, and a Gulf shrimp dealer is a person who purchases shrimp from a vessel or person that fishes in the Gulf of Mexico EEZ or in adjoining waters and that lands shrimp in the adjoining states. Currently, shrimp dealers are required by states to report monthly, but they're not required to do that electronically.

Requiring federal shrimp dealers to have a GSAD and adhere to those weekly electronic reports would ensure that NMFS receives timely and accurate shrimp data, and so, right now, we get blank market size category fields that have been increasing, and so they're not quite what we need, and so then SERO could enforce dealer reporting requirements, if we had this federal permit.

The current vessel reporting, the unit of shrimp effort is days fished and is derived by an algorithm developed by LGL Ecological Associates. The cELB GPS data is transmitted electronically via a 3G signal to NMFS, establishing a trip start and stop that can be matched, theoretically, to a state trip ticket, using a twenty-four-hour match window. Match efficiency using this algorithm ranges from 50 to 80 percent, depending on the year.

Time-stamped GPS data recorded at ten-minute intervals by the cELB units are used in the algorithm to estimate vessel speed, which is then used to infer time spent fishing, and so effort in units of days fished. Unmatched trips do not get used in the effort estimation, and cELBs are mostly on offshore vessels, and so this may bias the estimates.

When looking at options for vessel reporting, we established four possible options moving forward, and the potential for each option to provide sufficient data is summarized in the following slides.

 The first option is no vessel-based reporting, and that requires no effort data through the vessel, and we would move to using only state trip ticket data, which appears to not capture all trips reported to NMFS, and it has less spatially-explicit information and so, instead of those lat and longs, we have areas.

Further, efforts could only be estimated through days at-sea, which would be incomparable to the historic units that we use now and that's used as the basis of various regulations, and so, for example, the shrimp biological opinion and the Gulf shrimp amendment.

Option 2A and B is GPS vessel reporting. In general, Option 2 requires basically the status quo, where the vessels would need to transmit time-stamped GPS data at ten-minute intervals, with the trip start and stop date and time, upon returning to port.

With Option 2A, in addition to the above, it would require a trip ticket link, and so trip ticket number transmitted with GPS report. Survey-level GPS reporting still requires an algorithm approach, but the link would improve that match efficiency between the trip ticket and the lat and long position information. survey-level reporting may still poorly reflect the inshore fishing activities, and that's a caveat of continuing to do this.

For 2B, in addition to the requirements that we just mentioned, it would require census-level coverage of the federally-permitted shrimp fleet, and so a census provides greater coverage of the inshore effort, which is important in various regulations, and a census would improve the accuracy of total shrimp effort estimates. No algorithm would be needed to estimate that effort. With a census, there is no need to link to the state trip tickets to estimate effort. However, establishing a link to the trip tickets would allow for validation purposes.

Option 3 would be enhanced vessel reporting, and so this would essentially have vessels reporting gear information upon returning to port, and so gear information is required to be reported annually via that twelve-page mailed paper survey.

The electronic reporting application could be developed such that gear information could be saved, eliminating the need to update gear information, and then transmitted with the GPS and trip ticket number upon the vessel returning to port.

This leads to more accurate dealer data, and it would be more efficient than the paper survey that we get currently, and it would eliminate that data collection, and so fishermen wouldn't have to fill out that annual survey, and they would just be

reporting their gear information through the application.

 Option 4 would be even more enhanced, and we would get tow-by-tow vessel reporting, and this requires vessels to report landings and weight by shrimp species at the tow level. Currently, effort is derived by matching that cELB effort to trip ticket landings and allocating it to the area and the stat zone.

With tow-by-two landings, we would have an exact measure of effort for each tow, which would be precise by the stat and depth zone, and it could be derived, improving the accuracy of effort estimates used in the turtle bi-op and the red snapper bycatch analysis.

With 3G technology being discontinued at the end of 2020, a new shrimp data collection program and reporting requirements are warranted. For the council's consideration, we have presented these four options to update the current vessel reporting requirements, and so, once again, that Option 1 would produce incomparable units, because we would just be using trip tickets, and those will be coarse and less accurate.

Option 2A and 2B would achieve status quo reporting, with some refinement, and Options 3 and 4 would provide enhanced vessel reporting, incrementally improving the accuracy of the analytical information.

The council will need to pursue an amendment, if it chooses, to make changes to the expiring effort data collection and/or require shrimp dealer permits and all permitted shrimp dealers to submit weekly electronic reports to NMFS. I think that may be it. I'm sure that there will be lots of questions, and I will try my best.

CHAIRMAN BOSARGE: Thank you, Dr. Gloeckner. Were there any questions from the committee or others for Dr. Gloeckner? Let's see. I see Robin Riechers' name popping up on my screen. Robin, go ahead.

MR. ROBIN RIECHERS: Dr. Gloeckner, I am wondering about -- When we say the end of 2020, and so, obviously, in the current situation we're in, it's going to be hard to roll out new reporting requirements, and certainly new reporting technology, and so are we -- I mean, tell me a little bit about the time table and what your thoughts are, as far as how we continue what we have, if there's a stop-gap measure, and what are the thoughts there?

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DR. GLOECKNER: For the time table, 3G may be going away, but I think those units will continue to work for a little while, and so, at this point, we are just trying to get the ball rolling on developing some other method to collect this information, and, currently, we have been working with Benny Gallaway and researching whether or not we can just use the P-Sea Windplot software that is used by most of the fleet and modifying that, so they can just output the vessel tracks.

That is, I think, where we're going to try to go here very quickly, and so I think what we'll do is roll that out to the fleet as soon as we can, and I think that would be very soon after the beginning of the year, so that we can start using that information reported from the selected vessels and use the current information on the 3G units to calibrate that cELB with this new method and then switch over to a new method.

CHAIRMAN BOSARGE: I will jump in here, just for a second, Robin, to kind of expand upon that a little bit. The industry was made aware that this technology is going to go away, and we realized, at that point, that, as you just said, we're on a pretty quick schedule to have something done.

The council and government wheels turn kind of slowly, which that's fine, and there is good points to that, but we know that that information is important, right, and we don't need any gaps in it, if at all possible, because it's used for a lot of different things.

He mentioned a few things, and you can remember the coral amendment that we worked on here recently, and we saw that effort data quite a bit, to see where the shrimp fleet trawls in relation to a lot of that coral, to make sure that we get our boxes as tight as possible, when we draw boxes around that coral, and so we know how important it is, and we don't want it going away either, and so here's what industry has done to try and assist and do our part in this.

This effort is collected kind of like in the background on our boats, and it doesn't actually require active human involvement, right, and it's not like reef fish, where you have to -- Those guys, the IFQ guys, have to hail-in and hail-out, and they have to call the government, and there's a lot of interaction from the man on the boat.

Ours actually tracks our movement, and it has a formula that it uses to see, in between pings, how far did the boat move, and we

tow for certain species -- When our nets in the water, we're moving a lot slower than any other time that we're moving, and so that formula can tell when we're towing and trawling and when we're not.

MR. ED SWINDELL: Good morning.

CHAIRMAN BOSARGE: Hi, Ed. We hear you, and you can go ahead and mute yourself, if you don't mind. So, anyhow, where was that? So the problem is the algorithm and the formula and everything is fine, and the problem is the platform that it's being used on, which is the cellular electronic logbook platform, and the technology is rapidly expanding, and the boxes that we have on the boat are going to be invalid pretty soon.

That expanding technology is not going to go away, and that's always going to be something we're fighting, and so what the industry looked at is what can we get up and going quickly, very quickly, and, well, on our shrimp boats, on most of the Gulf shrimp boats, we use a computer plotter, and so it tracks our movement on a computer, and there is a software program called P-Sea Windplot in that computer.

That software program actually has the capacity for us to do a little tweaking to it, with the manufacturer of the software, and allow it to track our GPS movement and use the same algorithm that NMFS currently uses to collect the data in exactly the same way, using the P-Sea Windplot platform instead of the cELB that's going to be going out pretty soon.

What industry has done is they have kind of come up with a proposal to get out to some of these boats and getting the technology developed and put onto the boats and have that effort data collected and then turn that over to NMFS and let them take a look at it and make sure that it's comparable to the old effort data.

 If it is, if that works well, then NMFS would be able to take that proof of concept project that the industry gets up and running and essentially scale it up and run with it. We would have to have that proof of concept up and running within a matter of months, and hopefully the early part of next year, and we hope to have some data before that, but, to be able to hand it off to NMFS and let them scale it up, it would probably be early next year.

Essentially, what industry is waiting on to pull the trigger on that, because there's a hefty price tag for us to do this, is to

have some feedback from the council and see if the council is interested in us doing that, so that we don't have a gap in this data and so that we do have something up and running, and industry, just FYI, would partner with Dr. Benny Gallaway at LGL, who was the -- Dr. Gallaway and his company, LGL, were the original creators of the algorithm and the electronic logbook program that was originally on the boat. I will open it back up to questions, and, Robin, did that answer yours?

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MR. RIECHERS: Well, certainly my question was just more at not all the history, Leann, to some degree, because I do, obviously, remember Benny being real participatory in this and the ELBs being used, but I was just trying to get at the whole notion of -- Both you and Dr. Gloeckner answered it with the notion of modifying the current, some of the current, technology that you now have on vessels to try to go ahead and basically -- I am guessing, and I would have to go back up to the screen, but that's more of the Option 2A and B options, is what it seems like, as opposed to more of the higher bells and whistles options further down. That's kind of what I'm assuming that means.

CHAIRMAN BOSARGE: Yes, Robin, and you're correct. When you get into Options 2A and 2B, you start getting into some trip tickets and electronic transmittal of trip tickets, and we can probably take that up at a later date and another committee, maybe where we have some more time, but I have done a little research on what is causing the issue with matching effort to landings, matching an actual trip, effort trip, to the trip ticket for that trip.

I think, before we get to in-depth with electronic reporting of the trip ticket to NMFS, I think what we need to do is sit down and take a look at the unmatched trips and landings, because that is a list that kicks out of the program, the algorithm program, every time it runs, and we need to try and understand what's causing the mismatches.

 I have some ideas, and I think, honestly, when you go the P-Sea Windplot system, where you're not using that antenna that is on the current cELB, your matches are going to get a lot better. What happens is those antennas on the cELB -- They are just really not made to be out in the weather like they are, and so your transmitting doesn't work as well as you would like it to sometimes, and we may not know it's not transmitting until we get back to the dock.

I think that that will help, when you go to the P-Sea Windplot

system, and you will have a lot better matches, and I think going through that unmatched list to figure out what the other issues are and addressing the actual issues and trying to get better matches that way, whether it be adding another field to a state trip ticket program, so that we get the end date of the trip narrowed in a little better -- I think there's ways to fix that.

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I think, right now, we better focus on the 3G that's going to expire, and making sure that we don't lose the data that we have, and then, once we get that off the ground and running, let's see what issues we still have, or what issues didn't go away, and then we can look at maybe fixing those. Were there any other questions for Dr. Gloeckner?

MR. DALE DIAZ: Leann, I have a couple of questions and a comment.

CHAIRMAN BOSARGE: Go ahead.

MR. DIAZ: All right. First, I do -- I am happy to see that the industry is stepping up to try to help fil the void and head off the problem, and I want to commend the shrimp industry for doing that, and I do realize that we have to have good data to manage this fishery also, and so all of this stuff is very important.

I do have two questions, and the first one, Leann, is for you, and the second one is for Dr. Gloeckner. The industry effort that you're talking about, right now, we have about 40 percent coverage on the system that we're using now, and what percentage coverage do you anticipate in this industry-led effort that you're talking about?

CHAIRMAN BOSARGE: The industry-led effort, Dale, that would just be a proof of concept, and so how NMFS decides to scale it up after that, whether they go 40 percent or 100 percent, however they choose to do it, that would be determined by them, and I would probably let Clay answer that question, but I assume that he would at least want the coverage that he has now, but the proof of concept --

 We would get out there and get this technology downloaded into some of the vessels that currently have cELBs on them, and, that way, they will have both running at the same time, the cELBs and the P-Sea Windplot program, using the same algorithm, and get that data back to NMFS, and it won't be many boats. It will just be a handful of boats, and it's just a proof of concept, right?

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The industry cannot afford to do a full-scale project, and you start getting into seven figures, when you want to look at something like that, and it's bad enough that we're in six figures and sorting out the money for that, but, anyway, I will let Clay answer the question about 40 percent or greater.

DR. CLAY PORCH: Thank you, Ms. Bosarge. 40 percent would be okay if we could do a better job with matching, which you were already talking about, and that's why we were recommending including the trip ticket number associated with each trip, and, that way, we can do a much better job figuring out what fraction of the total effort we're actually picking up with that 40 percent coverage, and we could do the expansion.

We're still recommending that, and I'm not quite so optimistic that, just by going to the unmatched list, we'll be able to resolve all those issues of how we can match better, and it's still going to be a lot of work down the road, and there will always be that kind of thing coming up, whereas, if everybody reported their trip tickets, it would be a lot easier to match.

I do like the idea of using the P-Sea Windplot platform, and I think that could work very well for us. Ideally, we would get something closer to 100 percent coverage, and that was the Option 2B, I believe, but, again, we could live with 40 percent if we could do a better job matching, and the trip tickets would help a lot with that.

The other thing that I wanted to point out was that those Options 3 and 4 give us a lot of the information that we collect rather inefficiently now for a lot of the economic analyses, and so some of the things that the council has been asking for could be better provided if we collected it in the manner that Dave described with those three and four options.

CHAIRMAN BOSARGE: Dale, did you want to go ahead with your question for Dr. Gloeckner?

 MR. DIAZ: Dr. Gloeckner, as you were going through your options, one of the things that kept popping into my head was cost, and so could you speak a little bit to what costs might be borne by the industry with relation to going to the monthly tickets for the dealers, and also the other options that might impact people in the commercial fishery?

DR. GLOECKNER: If we want to talk about the going from monthly paper to weekly electronic submissions by the dealer, it just

depends on what the dealer currently has on hand, whether they actually have a computer on hand if they're still doing everything the old-fashioned way. If they have to buy a computer, you're probably talking about three-hundred-bucks worth and an internet fee of a monthly recurring internet fee, somewhere around eighty-bucks.

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Time-wise, it really doesn't cost any more to do it weekly, and you're entering the same number, but you're just doing it a little bit sooner, and so I think what we put together when we did the reef fish was an estimate somewhere around three-hundred-bucks for the dealers to take on electronic reporting, if they're not already doing it, and so we would have to go through, and I think Florida is pretty good, with most of their dealers already reporting electronically.

It would be the other states in the Gulf that we would have to work with, right along with the Gulf States Commission, to implement that change in reporting. Does that get at that question?

MR. DIAZ: It does, and, on the other options related to the commercial fishermen, do you have any idea if there would be any additional costs to commercial fishermen?

 DR. GLOECKNER: I don't see it being an additional cost over and above what is already paid. It's still operating in the background, and it's still using -- Actually, it's using a system that's already onboard, but it's just working with P-Sea Windplot to export that data somehow and transmit it, and probably using the same cellular method that the current logbook does, and so I don't see that changing much, unless we expand it to the rest of the fleet and require that.

There may be some vessels that don't have computers onboard and aren't using P-Sea Windplot, and so we would have to get an estimate of that number of vessels from Benny and figure out how much that would cost. I think a license for P-Sea Windplot is \$900, plus you would have to put a computer on the boat, and so that's probably somewhere between \$500 and \$1,000, but I think, after that, you've got a recurring cost of transmission, and I think that's it, unless there is upgrades that you want to make to your P-Sea Windplot.

MR. DIAZ: Thank you, Dr. Gloeckner.

DR. GLOECKNER: Those are the costs that I kind of expect, but I will need some feedback from Benny, and we were hoping to meet

again before this meeting, but we couldn't work it out.

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 CHAIRMAN BOSARGE: All right. I have a question. You mentioned that there's a twenty-four-hour window for matching. I am kind of getting into the weeds, but I would like to delve into it just for a second. Essentially, you get the effort information from the vessel, and you can see when the trip ended for the boat, based on when the boat quit moving.

Then you get a trip ticket from Mississippi or Louisiana or Texas or something, and that trip ticket has a date, I guess an offloading date, and it would depend on which state as to what date they list on there, and some of them will have a number of days for the trip.

Are you telling me that the offload date on that trip ticket has to be within twenty-four hours of when that boat landed, when the boat hit the dock, in order for the system to make a match out of it? If that's the case, there's a lot of issue right there with your matching, because we don't always offload within twenty-four hours of hitting the dock.

DR. GLOECKNER: I think what we're using is we're using a threeday buffer to try to incorporate those differences between --

(There is a gap in the audio recording due to a dropped phone line, but there is no lost data.)

DR. TOM FRAZER: Leann, I think we're going to get started. Give it a whirl.

CHAIRMAN BOSARGE: All right. Thank you so much. Now we're under the gun, and we have about six minutes to finish our committee, and so what we need to come out of this committee is, if the industry is going to move forward with this proof of concept project, where we actually get this same program algorithm up and running on a different platform on the vessels that currently have it, we really need to hear council encouragement for that idea, because it's well over \$300,000 that will come out of the industry's pocket to make that happen, so that we don't have a large gap in our data.

If the council is encouraged by that, using the P-Sea Windplot, to collect that same data that we have always been collecting, I would like to hear some feedback from the council, as well as from the Science Center, so that the industry can make a decision and get this program done.

 I heard Dr. Porch speak positively about the idea of using the P-Sea Windplot earlier, but did I interpret that correctly, that the Science Center is onboard with the idea, Dr. Porch?

DR. PORCH: Yes, absolutely. I think it's a great idea, and, if we don't do something soon, the whole system is going to fall apart, and that's not only going to affect our ability to determine where the shrimp fishery is in regard to that 66 percent regulation, but it's going to affect a lot of our stock assessments, and so it's really important to get on the right track here.

The only thing I would say though is, as we move forward, I think we need to give strong consideration, again, to incorporating the trip ticket information, because, if we had that, we can automate things. If we don't have that trip ticket information, and we have to kind of use the fuzzy logic that we're having to use now to do the matching, we can't really automate it, and it becomes very labor intensive.

CHAIRMAN BOSARGE: Thank you, Dr. Porch. Anybody else? Dale, how do you feel about it?

Mr. DIAZ: Earlier, I commended the shrimp industry for doing it, and I think I encourage you all to go forward, and I would suspect that, if everything matches, we would take that into consideration down the line, and that's my perspective. Thank you.

CHAIRMAN BOSARGE: Mr. Riechers, you come from a big shrimp state. Tell me how you're feeling.

MR. RIECHERS: I certainly like the notion of using the Windplot and using something that they already have on the vessel, and so I think that's certainly a beginning and an approach we need to attempt to take, if the Science Center -- The Science Center seems to be okay with that, and so I guess what I'm trying to figure out, Leann, is whether you still need an amendment if we do that sort of approach or what does the action need to be here.

 CHAIRMAN BOSARGE: I will let staff, and maybe Mara, speak to that, and I would assume, as long as you're simply changing the platform that you're collecting the data on, and everything else is staying the same, and your algorithm is staying the same, and what you're requiring to be submitted stays the same, then I wouldn't see where the council needs any kind of amendment for that. It's simply a change of platform.

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Now, if, at some point down the line, we start getting into some of these other alternatives, where it's a much more in-depth reporting program, and there is new requirements, I would think an amendment might be called for at that point, but does staff or Ms. Levy want to chime in on that?

MS. MARA LEVY: I think that's right. I guess we just need to look back at what you've done through council action. I mean, one of the things that you did more recently was the cost-sharing between industry and NMFS, and just to make sure that whatever happens with this new platform is still consistent with that framework action that provided the cost-sharing, and I don't know exactly how this new thing is going to be set up, and so I can't really comment to that right now.

Then, when you put the ELB requirement into place, there was an option to have all shrimp vessels participating, or a statistically-valid sample participating, and the council chose the statistically-valid sample, and so, to the extent there's a desire to increase the number of participants, to make it more of a census of everyone, that type of thing, even though it's the same platform, is going to probably require some sort of council action.

CHAIRMAN BOSARGE: Thank you, Mara. Then do we have Louisiana on the phone? I don't know if we have Mr. Banks or Mr. Schieble, but how do you all feel? Do you like the idea of the pilot program and getting that up and running through industry and then letting NMFS take that and scale it up, as appropriate?

MR. CHRIS SCHIEBLE: Yes, I agree, and I don't see any issues with this. I know that our reporting comes in a little bit differently, how it's done, but I don't think that will affect that, and so, yes, we're in agreement with it.

CHAIRMAN BOSARGE: All right, and so I'm hearing --

MR. DIAZ: Leann, there are some people with their hands raised, just so you know.

CHAIRMAN BOSARGE: Okay. My hands are not over on the right of the screen, and it's the middle. I'm sorry. Robin, did you have another comment?

MR. RIECHERS: No, ma'am. I am through.

CHAIRMAN BOSARGE: Okay. Mr. Anson. I was coming to you next

anyway.

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MR. KEVIN ANSON: Thank you. I agree as to provide an opportunity where we won't have a loss of data, and, if industry is willing to step up, I appreciate and commend them for doing so and offering to do that. Mara brought up one of the questions that I had relative to the sample size, or the participants, who would be getting the Windplot software and to have the ability to provide the data, and I just was curious as to if that was going to be the same group of folks.

My understanding is that it's somewhat of a static sample size, and not necessarily a random draw of vessels, and I could be wrong, but, if Clay or Dr. Gloeckner has any comments to that, I would be curious to know about the participation, or the selection.

CHAIRMAN BOSARGE: Clay, do you want to chime in for that?

DR. PORCH: I am not sure what the statistics are there. I don't know if, Dave, you know off the top of your head. Otherwise, we can find out.

DR. GLOECKNER: It seems like it's a static sample, because we have actually put those hard drives out onto the vessels, and we're not planning on replacing them on other vessels, and so it would seem like it's a static sample.

CHAIRMAN BOSARGE: I would concur with that, but I will say that, before those devices were placed onto those vessels, there was a lot of thought that went into stratifying that sample and making sure that it was the best it could be, and, from what I understand, as we go through this again, there may be an opportunity to look at that sample again and see if it needs some tweaking, since it is somewhat static, and so thanks for bringing that up, Kevin. Then, Dr. Frazer, you had your hand up?

DR. TOM FRAZER: Thank you, Leann. I am just trying to familiarize myself with a little bit of the history here. The Science Center was responsible originally for covering the cost associated with the units, right, and, right now, the industry wants to step in and essentially provide a bridge, and are there recurring costs, in that regard, to the industry?

CHAIRMAN BOSARGE: Most of the offshore fleet does use the P-Sea Windplot system software, right, on their computer plotters, but, if there are vessels that don't use that, and that's the

platform we decide to go with, they would have to purchase that software program and get it solved.

Because we're moving away from the cellular logbooks, where it uploads to a cellphone tower when you get within range, you're going to eliminate that cost, the monthly cellphone coverage that we have to pay for. The software that's going to have to be downloaded into P-Sea Windplot, I'm guessing there is probably going to be a cost to the industry for that, and we're at such the beginning phases of this that I really don't know what those costs are going to be yet.

 If we went with some of the other platforms, we would probably be having to purchase a new device for the vessels, if we try and go with 4G or 5G, and, yes, you would have to purchase new devices, and we don't think they could even get manufactured in time, but, to circle back, those are some of the questions that we really need the industry to give us some more feedback on.

What I would suggest, to answer some of those questions, is that we get together the Shrimp AP, and the industry knows a little bit about this already, because we've, obviously, been talking amongst ourselves, but let's have a formal discussion with the Shrimp AP, as far as some of these other options, after we do this proof of concept project, what the costs may look like, because hopefully we'll know more then, what some cost-sharing ideas could be, and just anything else that they find relevant. I would suggest we send it to the Shrimp AP.

The other thing that I would request at that Shrimp AP meeting is an in-depth discussion with some specific examples of the unmatched list for the landings versus effort, because I can think of a few things, off the top -- I am not necessarily opposed to having us submit the trip ticket number when we submit the effort information, but I just don't know that that's going to fix the problem, and I worry that we have an issue, but we don't really know what the problem is, what's causing it, in a lot of cases, and I think, before we put another regulation and burden on the fishermen, we should really look at the unmatched list and find what's driving that thing not to be matched.

We have an electronic logbook on several of our boats, and one of them does mainly endangered species relocation all year, and, even if you make me submit electronically, you're still going to have lots of effort that has no trip tickets attached to it, because we're not catching shrimp. We are catching turtles to relocate them, so they don't get killed.

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 The past month, we've had a boat out shrimping that's been to the dock three different times, usually for five or six days at a time, because of these hurricanes. Well, in the effort data, that looks like it's the end of a trip, but you're not going to have a trip ticket submitted with it, because we're not offloading. It's not the end of the trip, but we're just at the dock because of weather, although an extended period of time.

These are the kinds of things that we need to look through and see, on this unmatched list, what is causing it, and look at that match window and see if there's some things that can be tweaked to increase the number of matches before we put the burden on industry. If there's not, then okay. We will just have to submit our trip tickets to both the states and the feds. We get it, although that's what we're trying to avoid with other fisheries and having them report the same information twice, but we'll do if it we need to, but, first, I think we need to look at what is driving the matches.

So give it to the Shrimp AP, and my last comment, real quick, on funding is the industry is going to come together and try and fund this pilot program, or this proof of concept project, let's call it, and I mentioned before that it's over \$300,000, and it's not cheap, and we're a poor industry. We don't make big money.

I am hoping that all the people on this call -- You are very well connected, and we have lots of S-K funding that comes through, and that S-K funding is based on tariffs that come on the backs of the shrimp fleet, and most of the imports in this country, most of the shrimp eaten in this country, are imported, and it's what has made us a poor industry. Those imports drive our prices down.

I am hoping that some of that CARES money could finally be rerouted to the people that feel the pain because of it, and maybe we can get some funding through there, and so I just ask you to all keep your ears open, and keep the shrimp industry in mind as we move forward with this and need some funding. Anything else? Any other feedback from the group? If not, then I am going to -- Go ahead, Mara.

MS. LEVY: I just -- Again, as I hear you talk about it more, I mean, to the extent that there is going to be new funding burdens on people, to the extent we're going to require people to buy additional equipment, potentially, or software, that wasn't contemplated in the framework action that divided the

cost of the ELB program between industry and NMFS, and we're likely looking at some sort of council action, rulemaking, and I don't think we can just impose burdens like that on industry without that.

Again, I don't know enough about it, but I just -- I know this is a time-sensitive thing, but, to the extent we get more information about what types of things you're going to be asking industry to do, it may not be as simple as just saying do it.

CHAIRMAN BOSARGE: Mara, so, whether we go with P-Sea Windplot or we require industry to buy some other device, some other platform, either way, it's a cost to industry, and so I think you're right. As we get closer to this, we'll have to look at it. Really, the biggest cost is just the cost of getting to the boat, getting somebody to get to the boat, for us, for the proof of concept.

We actually need to send someone to the boat to download the new software into the P-Sea Windplot program and then gather that information back up and get it to NMFS, and so you would think that wouldn't be that costly, but I guess nothing is cheap these days. Then I had another hand from Matt Freeman.

DR. FREEMAN: Thanks, Leann. Just for clarification, for staff, you were suggesting having the AP meet towards the end of completion for this proof of concept, or if you could provide a little more guidance on when you would like the Shrimp AP to meet, and, also, sort of timewise, when that might be.

CHAIRMAN BOSARGE: That's a good question, Matt. I will have to get back to you on that one. I need to think about that a little bit. It's not just the timing of the project, but we need to think about shrimp season and peak shrimp seasons and when is the best time to do it for industry, and so I will circle back with you on that.

DR. FREEMAN: Okay. You've got my email.

CHAIRMAN BOSARGE: Thanks. Any -- I don't see any more hands up, and I appreciate everybody's patience with this. I think we had some good council feedback, and I hope that it was enough positive feedback that industry feels good about making that kind of financial commitment to get something off the ground and running quickly, and I will be sure to report back to you all and let you all know how all that's going.

Mr. Chairman, I'm about eleven minutes over, but, if there is no

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Other Business -- Any other business? Seeing none, I turn it back over to you, Mr. Chairman.

(Whereupon, the meeting adjourned on September 28, 2020.)

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