GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

## DATA COLLECTION COMMITTEE

Embassy Suites Panama City Beach, Florida
October 23, 2023
VOTING MEMBERS
Susan Boggs Alabama
Kesley Banks ..... Texas
Rick Burris (designee for Joe Spraggins) ..... Mississippi
Dave Donaldson ..... GSMFC
Jonathan Dugas ..... Louisiana
Dakus Geeslin (designee for Robin Riechers) ..... Texas
Bob Gill Florida
Michael McDermott Mississippi
Chris Schieble (designee for Patrick Banks) ..... Louisiana
Andy Strelcheck. ..... NMFS
C.J. Sweetman (designee for Jessica McCawley) ..... Florida
Ed Walker
Troy Williamson ..... Texas
NON-VOTING MEMBERS
Kevin Anson (designee for Scott Bannon) Alabama
Billy Broussard ..... Louisiana
Dale Diaz ..... Mississippi
Tom Frazer ..... Florida
Anthony Overton ..... Alabama
STAFF
Assane Diagne Economist
Matt Freeman ..... Economist
John Froeschke Deputy Director
Beth Hager .Administrative Officer
Lisa Hollensead. Fishery Biologist
Mary Levy ..... NOAA General Counsel
Natasha Mendez-Ferrer Fishery Biologist
Emily Muehlstein. Public Information Officer
Ryan Rindone Lead Fishery Biologist/SEDAR Liaison
Bernadine Roy
Executive Director
Camilla Shireman Administrative \& Communications Assistant
Carly Somerset Fisheries Outreach Specialist
OTHER PARTICIPANTS
Luiz Barbieri. GMFMC SSC
Tim Griner. ..... SEFSC
Peter Hood NMFS

Michelle Masi........................................................... ...
Jessica Stephen...............................................................
John Walter............................................................... SEFSC

-     -         - 

Table of Contents. ..... 3
Table of Motions. ..... 4
Adoption of Agenda and Approval of Minutes and Action Guide and
Next Steps....................................................................... . 5 ..... 5
Final Action: Joint Amendment Commercial Electronic Reporting. ..... 5
Summary of Public Comments.
Document. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8
Proposed Codified Text ..... 9
Development of Gulf For-Hire Data Collection Program ..... 11
Presentation: Overview of Current For-Hire Data Collection
Presentation: Summary Results from SEFHIER...................... 28Presentation: For-Hire Data Usage and Next Steps...............45
SSC Discussions on MRIP-FES Pilot Study and Next Steps ..... 60
Discussion of MRIP-FES Inventory for the Gulf of Mexico. ..... 68
Adjournment. ..... 79

TABLE OF MOTIONS
PAGE 10: Motion to recommend the council approve the Joint Amendment on Commercial Electronic Reporting and that it be forwarded to the Secretary of Commerce for review and implementation and deem the codified text as necessary and appropriate, giving staff editorial license to make the necessary changes in the document. The Council Chair is given the authority to deem any changes to the codified text as necessary and appropriate. The motion carried on page 11.

The Data Collection Committee of the Gulf of Mexico Fishery Management Council convened at The Embassy Suites in Panama City Beach, Florida on Monday morning, October 23, 2023, and was called to order by Chairman Susan Boggs.

ADOPTION OF AGENDA
APPROVAL OF MINUTES ACTION GUIDE AND NEXT STEPS

CHAIRMAN SUSAN BOGGS: Good morning. I would like to call the Data Collection Committee to order. The members of the Data Collection Committee are myself, Susan Boggs, as Chair, Captain Walker as Vice Chair, Dr. Banks, Chris Schieble, Dave Donaldson. J.D. Dugas, Bob Gill, C.J. Sweetman, Michael McDermott, Dakus Geeslin, Rick Burris, Andy Strelcheck, and Troy Williamson.

With that, I would like to have a motion to -- Has everybody had an opportunity to review the agenda? Are there any additions that need to be added? May I get an approval for the agenda?

MR. DAVE DONALDSON: So moved.
UNIDENTIFIED: Second.

CHAIRMAN BOGGS: Any opposition to the motion? Seeing none, the motion passes. The next item on the agenda is the Approval of the August 2023 Minutes. I hope that everyone has had an opportunity to review those, and may I have a motion to approve?

MR. BOB GILL: So moved, Madam Chair.
MR. DONALDSON: Second.
CHAIRMAN BOGGS: Is there any opposition to this motion? Seeing none, the motion passes. Okay. The next item on our list is the Action Guide and Next Steps. We have a pretty full agenda today, and so we're going to take this item-by-item, and so, Dr. Hollensead, I will turn this over to you for Agenda Item Number IV, Joint Amendment for Commercial Electronic Reporting.

## FINAL ACTION: JOINT AMENDMENT COMMERCIAL ELECTRONIC REPORTING

DR. LISA HOLLENSEAD: Thank you, Madam Chair. This first agenda item before the committee today is going to deal with final action for this joint amendment, and so, as many of you are aware, the Southeast Fisheries Science Center is working towards implementing electronic reporting for the commercial coastal logbook program for the South Atlantic and the Gulf of Mexico.

This is a joint amendment being developed with the South Atlantic Fishery Management Council, and they approved this for final action at their September 2023 meeting, and so council staff are first going to present the summary of public hearing comments that we received, including comments that we also through received through other means, and then the latest draft of the document. Then we will also work through the codified text, to review that, and so the committee should review those materials, ask any questions of staff, and, if desired, recommend that the council take final action on this amendment, and so that would be Emily with a summary of the public comment.

## SUMMARY OF PUBLIC COMMENT

MS. EMILY MUEHLSTEIN: Why thank you, Dr. Hollensead. Okay, and so we hosted a couple of webinars on this issue, and, at the first webinar, we had six members of the public attend, but no comments were received during that webinar. In the second webinar, we had also six members of the public attend, and we did receive one comment, and that comment said that the Shareholders Alliance specifically is very supportive of the new program and has advocated for this update for a very long time.

It was acknowledged that the transition is complicated, and that it takes a lot of effort to build and integrate an electronic reporting program, but there are numerous fishermen that are ready to test the program, when the time comes, and there was an emphasis on the fact that we are going to need a lot of training and outreach, when this program is implemented, to make sure that we don't leave anybody in the dust, and we want to make sure that our transition to this new electronic reporting program is very smooth and that the people who are expected to report through this program are comfortable with it before they are forced to do it.

Our third webinar, we had one member of the public attend, and he said that this program is a long time coming. While he used to be one of those guys that was not very interested in technology, he's a late adopter of that technology, he told me, and he has adapted to the electronic world, and he thinks it's about time for us to transition this reporting program to that.

He also asked that the rollout give plenty of time for folks who need to adapt to the new platform, and he also commented that he liked the feature that will not let users submit incomplete reports. He said that he thinks that's going to be really valuable, because, at this point, if you have an incomplete
report, it takes weeks for it to get sent back, and then, by the time you get it, your memory about that specific trip is probably really wrong, and so he thinks that's really going to improve the quality of the data that's collected.

We did have forty-nine folks watch our public hearing video, and we received three comments. Of those comments, those that supported the transition noted that reporting on paper is archaic, slow, and fraught with errors, and that this is a long time overdue, and it will strengthen our reporting.

There was one comment that was written by letter, as a testament to this person's use of technology, and he said that it would really adversely impact him, and the older generation of fishermen, that don't have access, or the desire, to use new technology. He essentially sent in a plea asking that we do not transition to electronic reporting, because he has no internet access, no computer, and no smartphone, and he suggested that the council should at least consider grandfathering-in some of the older participants, like himself, because this will essentially stop him from fishing, you know, through his retirement, because he is not going to be able to transition to electronic reporting, and that's it.

CHAIRMAN BOGGS: Any questions from the committee? We don't have anybody here from the Science Center? Mr. Strelcheck.

MR. ANDY STRELCHECK: Unfortunately, Clay is arriving later this morning, or early this afternoon, and John Walter may be online today.

CHAIRMAN BOGGS: Well, I had some questions, but I guess I will wait, unless John Walter is on the line, and do we know? Dr. Walter, thank you for joining us.

DR. JOHN WALTER: Good morning, Chair. How are you?
CHAIRMAN BOGGS: Good morning. Thank you, Dr. Walter, and so some of the comments that we've heard were about the rollout of the program, and has there been any discussion, within the agency, about how this would roll out? Is there going to be a period of time in which to get the commercial fishermen set up? I know like, with the SEFHIER program, when we were doing it, it seems like we had almost a year, and I don't know that it would take that long with this particular program, but has there been any discussion, within the agency, about how this would work?

DR. WALTER: Yes, and there's been substantial discussion about
how this rollout -- I think there's going to be a fair bit of overlap between the two, the paper and electronic, and it's going to be some time before we go 100 percent electronic. I am checking in on this comment about grandfathering, for participants who might not have cellphones or computer access, but does that answer your question, at least as far as $I$ know right now?

CHAIRMAN BOGGS: Yes, sir, and you did answer my second question, which would be about this gentleman that doesn't have the electronic capability to handle the new commercial logbook, and so, Dr. Hollensead, what else do you require from this committee? Where is the South Atlantic on this?

DR. HOLLENSEAD: They elected to go final on this document at their September meeting, and so then we would follow-up with that consideration to then go final. There's a couple of sections in there, in the document, public summary comments and things like that, to go in. Then, once we have that, the document will be ready for transmission.

CHAIRMAN BOGGS: Okay, and so what is the pleasure of this committee? Do you all want to go final, or do you want to wait until -- Do we need to maybe send a recommendation to Full Council? Dr. Hollensead.

DR. HOLLENSEAD: If the committee wanted to consider also the codified text, just to make sure that -- You know, review that, and make sure that that is also what you're sort of expecting with this document, and then decide from there. I can also review the purpose and need and the document, if you would like.

CHAIRMAN BOGGS: So I think that would be a good idea, if you could review the purpose and need. If there is no more discussion, then maybe we review the codified text, and that may be putting the cart before the horse, but that might garner us the motion that we're looking for.

## DOCUMENT

DR. HOLLENSEAD: Bernie, actually, if you wouldn't mind pulling up the document first for me, please, ma'am. Then go to PDF page 14, and document -- It would be page 27 of 113. Here is, again, what the document has for the purpose and need. The purpose is to modify the reporting for commercial fishing vessels, and all of those fishery management plans are lined up there for the Gulf and the South Atlantic, and then the need is to improve the timeliness and efficiency of the commercial
logbook data collection.
CHAIRMAN BOGGS: Does anyone have a question about the purpose and need? All right. Dr. Hollensead, I guess do you want to skip to the codified text?

## PROPOSED CODIFIED TEXT

DR. HOLLENSEAD: Yes, ma'am. I think that would be a good idea. I would defer to Ms. Levy, if she had any comments on the codified text.

CHAIRMAN BOGGS: Ms. Levy.
MS. MARA LEVY: Well, I guess I would just encourage you to look at it, and so, in each applicable section related to the plans that we're amending -- It's essentially just changing the current codified text to indicate that it's electronic fishing trips, records for each trip, and also noting that, if selected, the permit holder has to submit the supplemental electronic discard and economic records, because that's how it operates now, and we wanted to be clear, in the text, that there are two requirements, right, the coastal logbook for everything, and then, if you're selected, the supplemental.

It's still the same timing no later than seven days after the end of each fishing trip, and, you know, you can do a no fishing report, if no fishing occurred during the calendar month, and then each section also had a catastrophic conditions section as well, that states, you know, the Regional Administrator can allow paper reporting, or maybe it doesn't even say paper reporting, because we don't want paper reporting, but the RA can waive, or modify, the reporting time requirements if there's a catastrophic condition like a hurricane, but I think the thought was, during the discussion, that paper reporting during that time would not be helpful, and so we would just allow people to have more time during those conditions. The sections mimic each other, essentially, in the different areas of the codified for the different FMPs.

CHAIRMAN BOGGS: So, with this one gentleman that expressed concern about not being able to electronically report, and should the Science Center make some concession, would that need to be addressed in the codified text?

MS. LEVY: Right, and so, I mean, right now -- I mean, that's kind of a sticky wicket, right, and like how are we going to make an exception for one or two permit holders, and how are you
going to identify them, and how long are they accepted, and how do we indicate that in the rules, and how are you going to enforce it, and, I mean, that opens like an entire can of worms, and there are a lot of questions that would have to be answered, and a lot of thought put into that.

CHAIRMAN BOGGS: So is this something that we can go final on until the Science Center makes that call? Mr. Strelcheck.

MR. STRELCHECK: It's not the Science Center's call, and it's the council's call, in terms of whether you want 100 percent electronic reporting or something else that would grandfather individuals in, and I would not encourage that. We had similar concerns raised when we rolled out the IFQ program, and that was sixteen years ago, and we're now fully operational, 100 percent electronic submission of permits, and so nearly all of our systems now are operating in an electronic environment, and $I$ think we can work with individuals that maybe are having problems reporting, and figure out how we can help them to get online and submit reports.

CHAIRMAN BOGGS: Well, and I appreciate your comments, and I only ask because, based on what Mara just said, and not knowing -- I guess I look to you, the RA, and you've answered that question, but there is no really reason to slow this process down, and you all will just work with that one individual, and so, with that being said -- Mr. Gill.

MR. BOB GILL: I take it, Madam Chair, that you're looking for a motion?

CHAIRMAN BOGGS: I think that would be appropriate at this time.
MR. GILL: If you would like, I would proffer the bare bones of one, which was that we recommend to the council to -- Then use all the standard verbiage of the motion that we use at Full Council, if you could put that up, Bernie.

MR. ED WALKER: I will second the motion.
CHAIRMAN BOGGS: Thank you, Captain Walker. I was waiting to get it on the board. We have a motion on the board to recommend the council approve the Joint Amendment on Commercial Electronic Reporting and that it be forwarded to the Secretary of Commerce for review and implementation and deem the codified text as necessary and appropriate, giving staff editorial license to make the necessary changes in the document. The Council Chair is given the authority to deem any changes to the codified text

## as necessary and appropriate. Is there any opposition to this motion? Dr. Walter.

DR. WALTER: Sorry, Madam Chair, and I don't have any opposition to this, and this was about the previous topic on allowing for grandfathering of the paper, and that would not be the preference of the Science Center, to have to maintain two separate systems, and sorry to come in late here, but this is not pertinent to the voting. Thanks.

CHAIRMAN BOGGS: Thank you, Dr. Walker. All right. Seeing no opposition to this motion, this motion passes. All right. Dr. Hollensead, if there's no more discussion on this issue, would you please take us through Agenda Item V, Development of the Gulf For-Hire Data Collection Program?

## DEVELOPMENT OF GULF FOR-HIRE DATA COLLECTION PROGRAM

DR. HOLLENSEAD: Yes, ma'am. As many of you are aware, the council has expressed interest in developing a for-hire data collection program in the Gulf, something to replace the Southeast For-Hire Integrated Electronic Reporting, or SEFHIER, program.

To do this, we're going to actually take it hopefully in some bite-sized pieces over the course of three presentations, and so the first presentation is going to review existing for-hire data programs, including the MRIP for-hire telephone survey, the Southeast Regional Headboat Survey, LA Creel, and the Texas Parks and Wildlife Department's angler survey. That presentation will be given by Dr. Stephen.

The second presentation will provide some initial results from data collected in 2022 from SEFHIER, and that will be presented out by Dr. Masi, and then our third presentation will provide an overview of usages for the for-hire data and provide some discussion questions for some next steps, and that will also be provided by Dr. Stephen.

The committee will have an opportunity to ask questions of staff between each presentation. Any technical questions that you may have about the presentations, please feel free to ask at that time, and the committee should consider all the information and provide any feedback to staff on any additional directives, perhaps, for the For-Hire Data Collection AP, if desired, in addition to the charge statement that's already been approved. Madam Chair.

CHAIRMAN BOGGS: Okay. We have a lot to digest today, and I really would like to get a lot of feedback, if we can, when we get through with these presentations. Dr. Stephen, it's nice to have you in-person. Thank you for joining us, and whenever you're ready.

## PRESENTATION: OVERVIEW OF CURRENT FOR-HIRE DATA COLLECTION PROGRAMS

DR. JESSICA STEPHEN: All right. As Lisa said, we're going to kind of go over three different presentations, moving forward, and I just wanted to give, again, an overview. We're going to have the three different presentations, and this one, in particular, is going to concentrate on the background of why we collect for-hire data, the different sampling methodologies we use, and review some of those current programs and identify some of the different data gaps, or needs, within each program.

I'm going to start off with kind of the basic concept of why we collect fisheries data in general, and it's typically used in order to collect information to inform not only stock assessments, but management advice, and to monitor catch overall. Typically, when we're looking within this, it's a combination of looking at your catch data, which is informing you about the fish that were caught within the trip, and then using that in conjunction with your effort data, how many trips have been taken, to give what we call kind of the total catch, or the final estimations, of the fish caught over time.

Within the catch data, we collect information directly from the anglers, and this is often during fishing trips, and you can see this as information collected on the logbook, and it frequently has some supplemental information that comes from field samplers, or from observers or intercept surveys.

When we're looking at the effort data, effort data is typically collected in in-person interviews, or maybe phone calls or emails, or some type of electronic reporting, to collect more information on effort, and $I$ want to remind everyone that each survey does have its own different methods of data collection, but, typically, when you're looking at effort data, you have questions such as how long have they fished, what are they targeting, how many trips have they taken overall.

Honing-in, in particular, into recreational fisheries data use within management, what we want to get is high-quality catch and effort data, so we can actually determine the effects of fishing from the for-hire fleet and develop sound management strategies,
moving forward, and this is typically done through some type of continuous monitoring of catch and effort data, and we might be looking at different trends, in order to predict what would be happening, or we would be evaluating different management impacts, such as changing bag or size limit, or even looking at different management scenarios, which is a combination, and so, often, that's what you see when we bring decision tools in front of you that combine different elements together.

Really, the quality of that fishing catch and effort information, and statistics that are generated, do depend strongly on the sampling design, and so that is the sample framework, the data collection methodologies, and how you do the final estimations, and so types of different sampling methods.

When it comes down to it, there are really two larger categories of sampling methods, and there is a census, where you're going to collect all the information directly from members of the targeted population, and then there's a sampling design, when your population is so large that collecting a full census is more difficult.

Sampling design can be broken down into non-probability and probability sampling, and these are two different statistical methodologies. When you're thinking about non-probability sampling, one of the concerns is that a non-probability sampling may not be representative of all the different components of your population that you're sampling.

It's more of a chance that any member will be sampled, and that's not well known, and examples of what you see as convenience sampling, when someone stops you out on the sidewalk and asks you to take a survey, or you're looking for something where you're having to just volunteer information, or another example would be what we call snowball sampling. If you ask one person, they refer on to other people, who refer you on, and the problems with a lot of these is that you may be missing areas of important portions of your target population.

When you're looking at probability sampling, you're using a random selection that will ensure that you have representation at each of the different portions of your population. You're making sure that they have a known chance for sampling, and it doesn't necessarily mean it's equal for everyone, but knowing what the chance is can then be applied statistically to move forward. A typical example of what that would be would be the MRIP APAIS survey.

I also want to point out that there is a difference between what we call data collection and sampling methodology. An electronic logbook is data collection, and it's a tool in which we collect the data, and it is not a sampling method, in and of itself, but, when you're looking at different sampling methods, you would use the appropriate survey design to use those different data collections, in order to gather the information you need on fishing, catch, and effort. A lot of times, your data collection maybe looks to facilitate more timely or betterquality data, but it's only one portion in the aspect of how you get to final estimations.

When you're looking at probability sampling, which is what we'll kind of concentrate on for the rest of this presentation, it does require a well-designed sampling frame. It does allow you to get final estimations with some statistical relevance, some confidence around those, and it can handle what we call incomplete coverage, or non-responses, and so, even though you might design a census-like program, you could have nonresponses, and so probability sampling helps you adjust for those.

Back in 2019, a group of people got together, and this was both federal agencies and state partners and then our FIN partners, to talk about what would be good for-hire data collections, and we had the 2019 for-hire data collection and validation method workshop, and I'm going to go over some of the highlights that came from this, and some of the highlights were why we built the SEFHIER program the way we had.

One of the main parts that came from it is that the quality of your survey design really depends on not only your data collection methodology, but your estimation and your validation methods, and so three different kind of overall components, in order to get to a good survey design. They have recommended, at the workshop, that data collection and survey design should have two or more types of data collection, so that you can validate self-reported data, and so, for example, you could have logbooks, whether they're from commercial or for-hire, and then you would have the second methodology, and that could be a report from a dealer, an observer onboard, or a port sample interception.

Just to explain, in our commercial sampling, we do use two data collection methods for validation, and we have a logbook from the fishermen, and then we have the trip tickets from the dealer. Dockside sampling survey is also a critical component that was decided, particularly for the for-hire data collection,
because you need to look not just at mandatory reporting, but how is the compliance relating to it, and so, by having a dockside survey, this would be a second kind of data collection methodology to get to your estimation. It would include methods that would account for trips, or catch, that were not reported or misreported.

When they looked at the overall kind of standard that would come out for a design from the workshop, these were some of the recommendations that came through.

For a logbook, being electronic was considered better, and to have built-in quality controls, and so that would mean things like your end date could not be before your start date, when you were submitting information, or having different quality controls that wouldn't let you enter a species that didn't exist within the system.

They also recommended that we should have timely reporting and that timely reporting should not only be required for regulation, but in an enforceable manner, and so something to ensure the compliance with it, which leads into the next bullet point, making sure you have high compliance, and "compliance" is a really broad, generic term, and we'll get into it in some of the other presentations, to look at the different elements to compliance.

Then the last thing they recommended really was a validation survey, use of what they call a capture-recapture estimation procedure, and this was taken originally from how we tag fish and then recapture fish, to identify things like movement for the entire population, just based on a few. In this case, the capture component is the logbook that would be required from the vessel, and the recapture is the dockside intercept. It is critical, in this methodology, statistically, that you have the recapture being fully independent of the capture and that the recapture is probability-based.

I would like to remind everyone that the original SEFHIER program was built on a lot of these components, and it is that quality of the data, in combination with the survey design, the compliance, and the accuracy of the reporting that leads to good, sound management.

I'm going to take a little different step here, and $I$ want to just kind of remind everyone of how our for-hire fleet is composed, and so, typically, we talk about the for-hire fleet in two components, the headboat and then the charter boat. Keep in
mind that, even within the subsectors, the vessels may differ by the size and number of passengers, the fee structure, the different types of angler experiences, what they're selling the trip to do, and the different types of fishing activity.

Typically, in general, we consider a headboat a vessel that is going to take multiple individuals, and they may not know each other, and there could be small groups of anglers who do know each other, and they're going out with a licensed captain and crew, and they're charged a kind of fee, a per-head fee, in order to get on the boat. This is typically headboat trips are more than six passengers, and they can be fairly large within some of the vessels within the federal fleet.

On the charter boat, this is typically more people who know each other, and they are hiring the vessel and the crew to take them out, and so they are chartering the experience to go out, and there's typically a fee for the entire charter, versus a fee per head, and they can engage in different types of fishing techniques, because it's typically a smaller party size, and so they might do drift fishing, trolling, as well as bottom fishing.

The next thing we're going to delve into is the different types of existing surveys within these, and so I'm going to kind of go over them, identify some of the data gaps within it, and I want to remind people that, just because a data gap exists in the survey, it doesn't mean that survey is not doing what it was intended to do, and so building a comprehensive survey that would do everything would be fairly intensive, and most of these surveys have achieved their purpose with their design.

I'm going to start off with our Southeast Region Headboat Survey, and you might also hear it called SRHS. This is one of our older programs, and it began in the Gulf in 1986. It was paper at the time, and they moved fully electronic in 2013.

One of the key factors about the headboat survey is that it has a small sampling frame overall, and so there's only around seventy vessels in it, throughout the entire existence over time, and this survey design, because of the small sampling frame, is probably not going to be scalable to the larger federal for-hire fleet.

The headboat region survey uses a three-part survey design. It uses a trip logbook, and that was designed to be a census, although, over time, it has not always been a census. They had a lot of compliance issues early on, but, in recent years,
they've gotten to 95 to 99 percent compliance. They have a dockside intercept. During the dockside intercept, which is considered a systematic opportunistic sampling, and one of the reasons that they use the systematic opportunity sampling is that there's a small ratio of vessels to port agents, and so a regional port agent is systematically going through to ensure that there are different -- To ensure that all the vessels in their region are sampled approximately the same amount of times per month, and, again, it's that small ratio that allows this opportunity.

Those dockside samplers also collect for us biological samples. Biological samples are critical, when we're looking at stock assessments, to have otoliths for ageing, or histological samples, to understand maturity and transition of fish. Then the third component is an activity report that they use to help verify fishing activity.

Breaking the headboat survey down a little bit further, we have the effort portion of the collection, and so, when we're looking at effort within the survey, we have information coming from the logbook, and that's providing us the number of people onboard, the numbers of anglers onboard, because this often can be different, the fishing location, the trip duration, and we did instill four economic questions back in 2014.

There is also -- When I talk about the third component, the headboat activity report, this is where the port agents are kind of recording all known vessel activity information that's occurring, and they're using it to help track compliance and correct for different types of misreporting. What they use is direct observation while they're waiting for the vessels to come back, and so they're looking at who went out and making sure that, oh, if that vessel went out, then $I$ should be expecting a trip report, and they're also doing things such as contacting ticket offices, to ensure the economic information, looking at websites, looking for different types of information presented. Again, some of this is doable because of a small sampling frame with this survey.

When it comes to the catch collection, once again, they are using the trip logbook, and that provides your catch, which is your landed and discarded by species, and so how many did you land and discard, and they also have the dockside intercept which is in there, and the dockside intercept allows verification of that logbook and collects additional information that may not be in the logbook, such as the weights and the lengths, so that we get length-weight regressions and, again,
the biological samples.
For each of these surveys, $I$ have identified the timeframe, and I apologize, and I was trying to get 2022 data in here in time for the council, and $I$ couldn't get it across all the programs, and so what you'll see is a five-year display of data, from 2015 to 2019, and we purposely were excluding 2020 and 2021, due to COVID, and the numbers were different.

Looking kind of over here at the overall average, you can see that there is fluctuation in the number of trips, and the number of trips sampled over time, which means that the percentage of sampled trips may vary each year, but, on average, the headboat survey is probably intercepting, and looking at, eight-and-ahalf percent of the trips each year.

What are kind of some of the data gaps that might be seen in utilizing this design on a larger full-scale basis? One is that this was considered to be census-like, and, though it was required reporting, reporting did not always occur, but we have seen that, in recent years, particularly once we put in a permit requirement, that, in order to renew your permit, your logbook had to be there, and that's when we see a really drastic upshoot in compliance, and, as $I$ mentioned before, depending on the year, 95 to 99 percent compliance, and so this is a stronglycompliant program.

When there was not compliance, we did provide a correction factor, what's called a $K$ factor, and so the data the council receives from the agency does have these factors applied to correct for non-reporting in the headboat survey, and we also have access to the raw data, to look at different information going through.

Program participation does vary by state, and so we don't necessarily maybe have equal representation across all the states, but it was strong enough that we felt that it is a good index for our stock assessments, moving forward, and, of course, some of the things to consider is this program is not likely scalable the way it is, due to what that ratio is of vessels to samplers, and so they might have three to four vessels to one sampler.

With the amount of federal permits that we have out there, that would be a rather high cost for the agency, to put that many boots on the ground. Again, just remember that the early compliance challenges have been largely resolved for quite a few years now, due to that permit requirement.

I am going to move to probably our next-most well-known survey, which is the MRIP for-survey design. Just a reminder that it is only conducted in Mississippi, Alabama, and Florida. It is based on both the Access Point Angler Intercept Survey, or APAIS, as well as the offsite for-hire telephone survey, which largely collects effort information.

Within the for-hire telephone survey, approximately 10 percent of the vessels are selected for a phone survey, and this does include both state and federal vessels, and so this is not an apples-to-apples comparison of SEFHIER to MRIP, because SEFHIER was federal only. There is a mandatory response required from the federal reef-fish-permitted for-hire vessels. This information is collected directly from the captains, and it asks some questions about the number of for-hire trips within that week.

On the catch side, we use the APAIS survey to collect catch information, and it also collects information on the general area that's fished and what your catch is. In this sense, we are looking not only at landed and discarded, but discard disposition, alive or dead discarded, and it provides an opportunity for biological sampling. This information is collected directly from the anglers.

Once again, $I$ kind of show a five-year timeframe overall, and so you can see, in the second column, the number of vessels that have been selected for the for-hire survey, and we have seen a decrease in that overall, and then the number of reported trips, and reported trips are when a vessel was called, the captain answered the phone, and he answered the survey.

We also have telephone response rate, and how often did they actually pick up the phone, and you can see that that changes a little bit over time, and then, for those who do pick up the phone, there are refusals that are allowed, and refusals tend to be low, around 13 percent, and refusals can come from state vessels or federal pelagic for-hire vessels. I will point out that the person calling may not always know what permits a vessel has, and so we could potentially have refusals from federal reef-fish-permitted vessels as well.

Then, overall, there's a non-contact rate that's around 25 to 30 percent overall, and you can see the number of APAIS trips that have been sampled.

Looking within the MRIP program, what are some of the data gaps
that we see in looking through it? One is that it is voluntary, for state and for the federal coastal migratory species, or pelagics, permit. When you have a voluntary survey, you could have trips tabulate that as maybe an underestimate of the total effort across all state and federal waters, or across different geographical stratums, as you're looking through. The other part is that this is not a Gulf-wide survey, and it has to be combined with other state surveys to get a full-Gulf picture.

The last point is, early on in MRIP, or when it was in MRFSS, the identification of species was a little bit suspect early on, and so think about some of the amendments we have in front of the council, like what's the difference between black and gag, or scamp and yellowfin, and, over time, that has become less of a problem, because the surveyors who are working for APAIS are trained in species identification and able to help make sure that we are correctly identifying them.

I'm going to move on to the LA Creel survey, and so Louisiana participated in MRIP in its previous incarnation as MRFSS, all the way up through January of 2014 , when they started their own survey. LA Creel was looking to provide more reliable landings of different individual species in a timely manner, and they were using a two-part survey design.

Within the effort survey, they did weekly phone, or emails, to licensed Louisiana charter captains, to interview them and ask questions about their fishing activities from the previous week, and these captains were contacted at random, with the goal of roughly 30 percent of the offshore, or what they call the ROLP holders, and about 10 percent of their inshore-licensed captains. I want to point out that, during red snapper season, LA Creel does do 100 percent contact of captains with those offshore permits.

When we're looking at the collection, they do have a weekly access point survey. Some of the data gaps here are that there are no access point surveys at private landing locations, and, when they're collecting discard information, it's only on eleven critical species and not on the whole suite of them.

Moving on to Texas creel, and $I$ believe this is our oldest survey, and it began in 1974. I want to point out that we didn't get landing estimates starting until 1983 from Texas. They do what we call a boat survey, and it includes sampling of the for-hire vessels and well as those guided inshore and offshore vessels.

Their strategy is to intercept and interview boats while they're at the ramps and marinas. They collect landings information and effort information, as well as angler information, and they typically collect in a two-season style, and so they have the high-use season of May through November and then a low-use season of November through May of the next year, and they use a random sampling, based on relative site pressure.

One thing to take note of is that, while they collect lengths of fish within Texas creel, they do not collect individual weights, but we use the lengths then to estimate the weights, and there is no collection of discards. The estimates that are from the high and low season are sent to the agency twice a year, and then the expansion of those catch estimates are using fishable days, instead of total effort, and they also use estimates that are based on the empty boat trailer counts, and so, again, like we've said before for activity, like can we determine when a boat should be out.

Some of the data gaps, in relation to this, is that the sampling is limited just to those sites within and times covered by the survey frame, and, once again, no private locations are captured within it, and there's no separate survey that helps to account for those off-frame trips.

The last one that $I^{\prime} m$ just going to briefly go over is our counterparts in the Northeast do require vessel trip reports from their federal-permitted vessels, and, up at GARFO, the Greater Atlantic Region, that information is used solely to supplement MRIP in the Northeast, and so, if a vessel has been identified in MRIP's FHS survey, they are not called, because they already turned in their effort, through the logbook to GARFO, and that is used instead.

Your question might be why are they only using it as supplemental, and one of the reasons, and a similar problem down here, is the mandatory reporting doesn't cover the entire region, because the mandatory reporting does not cover the state vessels, and so they wanted to just use this as a way to supplement and get better information from the federal vessels.

The other problems considered were that the vessel trip reports are self-reported, and GARFO does not have a mechanism to validate those trips, and so they don't have a second survey design, which kind of wraps us up to where we are with SEFHIER when it was built.

When we designed the SEFHIER program, it was built to include a
number of those data and accountability reporting standards that we've gone over in this presentation. We largely built it to mimic the commercial fishery sampling design, to the extent that's practical, understanding that there are differences between the two trips.

Some of the things that we did to mimic it were utilizing hailouts, which help with trip auditing, using VMS for validation, as well as positioning, seeing geographically where we're going, and then the mandatory vessel trip reports.

To account for the validation, we did use the capture-recapture survey design, and that was in place through our partners in the commission, in GulfFIN, and then the state partners who assist with that, to intercept and help understand what might be the unreported and the accuracy of any self-reported trips.

Then we did build it to have adequate enforcement to help ensure compliance, and everyone is probably aware that we did have that logbooks had to be turned in before you could renew your permit, and that was just one of our compliance tools.

With regard to the capture-recapture in general, there are some challenges to doing this type of validation, or second-survey methodology. It does require that you have a registration of each trip being taken, and so you need to know what the total sample is and then what proportion of that your capturerecapture works within, and it also requires that that vessel trip report, or logbook, is submitted prior to intercept, and that's largely due to the nature that we have to have the two surveys independent of each other, and we don't want to have someone changing their records because they think they're going to be encountered.

Then, finally, sufficient enforcement and compliance monitoring, to help reduce that number of unreported trips. The goal really is to reduce that number as possible, but still have an estimation procedure in place, so that we can have final estimates, and, finally, observers could be another way, in a capture-recapture, that would increase the accuracy, particularly if the council is interested in discard mortality, and so what does the release look like, dead or alive discards.

What were some of the known gaps within SEFHIER? As we were analyzing the data, which you will see from Dr. Masi next, we kind of noticed a few different things that were going on that could be up for council consideration.

One thing is, like some of the other surveys, we did not have the ability to sample or to enforce at private landing locations. We did not collect the discard disposition or mortalities, and we were kind of trying to balance the burden in just collecting kept and discarded.

We had very limited weight and length data for the collection, and that's a little bit more of the boots on the ground and needing people taking those hard parts of the fish, and, of course, SEFHIER is only sampling the federally-permitted vessels. I will take any questions now, and then we'll go into the next presentation from Dr. Masi, and that will actually show you some data results from what we've analyzed of the program to-date.

CHAIRMAN BOGGS: Thank you for that, Dr. Stephen. Does anyone on the committee have any questions? Captain Walker.

MR. WALKER: Could you tell us what defines fishable days in Texas? Is there a certain wind speed, or wave height, or how do they determine what is a fishable day versus a non-fishable day?

CHAIRMAN BOGGS: Dr. Banks.
DR. KESLEY BANKS: I think $I$ can answer that question for you. We get what's called the washing wishing effect in Texas, based on how the Gulf of Mexico is set up, and so most -- At least in my area, charter guys can go out in about four, or maybe five, foot waves. Anything over that is a pretty sloppy sea, and we're also pretty breezy, and so anything over twenty-mile-anhour winds is pretty -- Your customers are going to stay pretty seasick the whole time, and you're not going.

MR. WALKER: But is there a specific -- Do you know if there's a specific number? I mean, they have to cut it off at a certain point, or it's just subjective? Is there a defined number, and I'm just thinking about this for other applications, and so I wondered if there was a definition of what is a fishable day, versus not a fishable day.

CHAIRMAN BOGGS: Dr. Banks.
DR. BANKS: It's pretty much up to the captain. I would say we can probably get out maybe 80 percent of the time, in the summer. Dakus.

CHAIRMAN BOGGS: Mr. Geeslin.

MR. DAKUS GEESLIN: To Captain Walker's point, there are definitions that we define, and it identifies non-fishable days, Ed, and I would have to look back into those, but our creel survey agents have codes that they mark down, and it does have to do with wave height and windspeed and offshore conditions, and I can get those for you though, Ed.

MR. WALKER: Sure. Thank you, and so the actual sampler checks fishable days, versus non-fishable, or the captain of the boat says -- Well, I guess you wouldn't have anything for talking to the captain if it was a non-fishable day.

MR. GEESLIN: Correct, and so, for our creel surveys, they are determining that, but, as Dr. Banks suggested, those often too are very much aligned.

CHAIRMAN BOGGS: I would think it would have to be subjective, too. I mean, the captain, versus what Texas creel is saying, and, I mean, because a fishable day to you may not be -- I think it could be very subjective, because I know, in our area, it is. Captain Walker.

MR. WALKER: Right, and that's why I asked. It's an interesting term, and, coming off of our abbreviated gag grouper season here, we had a lot of wind at the end, which a lot of us would call unfishable days, and so I'm just kind of bouncing that around in my head, and is this actually a thing that you can figure-in anywhere or -- I don't know, and I'm just thinking out loud here.

CHAIRMAN BOGGS: I agree with you. I mean, in our area, I know there's days that we don't fish, when other boats go out, and so it is the choice of the customer saying that we don't care, and we want to go, because you see people like that, and they don't care, and they want to go, or is it the captain erring on the side of caution, and so $I$ could see where that could be very subjective. Any other questions from the committee? Mr. Donaldson.

MR. DAVE DONALDSON: So you mentioned, for the headboats, that they're sampling about eight-and-a-half percent, and is that -Have they determined that that's an adequate sample percentage, that they're getting an adequate number of trips to be representative?

DR. STEPHEN: So I don't have a definitive answer on that, but I will say, based on kind of my experience of how small the number of vessels are, and then the number of trips taken with that
smaller sampling frame, that eight-and-a-half percent has seemed to lend itself well, when we're looking at management, of being truly indicative of what's occurring, as well as within stock assessments, and it is considered one of our stronger indices in stock assessments.

CHAIRMAN BOGGS: Mr. Gill.
MR. GILL: Thank you, Madam Chair, and so, in the for-hire telephone survey, and given the FES current situation, where we found the results may well be highly sensitive to simply the order of the questions, has the agency made any effort to see if a similar problem exists on the for-hire side?

CHAIRMAN BOGGS: Dr. Stephen.
DR. STEPHEN: I will have to defer that to any of our Science and Technology -- Or, Andy, do you have an answer for that?

CHAIRMAN BOGGS: Mr. Strelcheck.
MR. STRELCHECK: I mean, I'm going to speculate a little bit here, Bob, but the for-hire telephone survey of the captains is a weekly survey, right, and so the challenge that we were having was with reporting effort over a two-month period and the order of questions, two months relative to the entire year, and so my expectation is the bias would be considerably less, just because of the shorter timeframe that we're sampling, but I can confirm that with our Science and Technology office.

MR. GILL: If you would, sir. Thank you.
CHAIRMAN BOGGS: Mr. Gill, to your question, I know the State of Alabama, and I don't know if it's for every state, but we get a form in the mail, like a week or two weeks prior to the week that we're required to report, and it asks all those questions, and so, basically, you can fill the report out, and so, when they call, you have that information. In other words, if you fished a day, you can go, on that day, and fill it in, and so, therefore, your recall is not as biased. Mr. Donaldson, did you have a question? Mr. Anson.

MR. KEVIN ANSON: Thank you, Madam Chair. I'm not on your committee, but, Dr. Stephen, on the known SEFHIER gap slide, it mentions that does not collect discard disposition for mortality estimates, and was that a -- What was the reasoning behind that?

DR. STEPHEN: We'll get to a little bit in the third
presentation, but one of the aspects, when we were building the program, is we were trying to balance the burden on the fishermen and what the intended use of the data was, and so I think we landed -- The council had landed on just doing landed catch going forward, and it was something that $I$ think, as we got more compliance, or got further in the program, it could be something that you would want to adjust, or modify, to get more discard information.

CHAIRMAN BOGGS: Any other questions from the committee? Okay. I do have one, and Mr. Gill actually touched on one of them, with the FES. You talked about that the states don't collect this data from CMP permit holders, but there's not that big of a gap between CMP permit holders versus reef fish, is there?

DR. STEPHEN: That's correct, and we almost have -- A for-hire vessel that is federally permitted typically has both, and there are a few instances where they don't, and $I$ would have to double-check the data itself, and there might be more instances that they have the reef fish without the pelagic, versus the other way around.

CHAIRMAN BOGGS: That's what $I$ thought, and then $I$ have a question, and $I$ don't know, Dakus, if $I$ can put you on the spot, but how can you identify it's a charter boat out fishing by an empty trailer?

MR. GEESLIN: So we don't identify -- We count all boats, but we do -- There is a proportion that you can reasonably assume, over time, given our long history of our program, that you could say, okay -- That's based on our dockside surveys, where you have a period of record, where you would say that 30 percent, or 20 percent, is attributed to the charter/for-hire sector, and so it's not -- You're exactly right, and you can't tell by a boat trailer.

CHAIRMAN BOGGS: I was going to say, man, you all are good out there, and so -- Then, Dr. Stephen, I do have one question, and maybe I have missed something, but, on your last slide, with the gaps in SEFHIER, that it only samples federally-permitted vessels, and I thought that was the point of SEFHIER.

DR. STEPHEN: Yes, and so that was the point of SEFHIER, and it's one of the considerations when you're looking at overall management though, overall stock assessments, is you do want to identify the catch and effort taken from the state vessels as well, and so, while this adequately looks at the federal portion, when we're looking at overall management, we have look
overall at everything being removed from it.
CHAIRMAN BOGGS: So, when you say "state vessels", you're specifically talking about state charter -- Excuse me. Statepermitted charter boats, and not federally-permitted?

DR. STEPHEN: Yes, that's correct.
CHAIRMAN BOGGS: That's not data that can be drawn from the state collection surveys and the MRIP that the states participate in?

DR. STEPHEN: Yes, it can be drawn from those, and then you have to integrate in these different data streams that might be sampled in different ways, and so it adds a layer of complexity when you're moving forward, but what SEFHIER was doing is giving us more accurate and timely information on the federal, which was probably the larger proportion of what was landed as a species, and so it gave us a better indicator of what was going on, but, overall, when you're looking at management, you have to combine a lot of different data streams together, and so, for recreational, we combine state surveys, the headboat survey, and it would be SEFHIER down the road, as well as MRIP together, and so that's a lot of data streams, as you're moving together, and one of the ideas is to hopefully start to get them closer to where we have apples-to-apples comparisons.

CHAIRMAN BOGGS: So last question, and, I mean, the agency is not looking to bring the state guideboats, is what $I$ was trying to come up with, into the SEFHIER sampling, are they?

DR. STEPHEN: That's correct, and it was just like the overall scheme things and where data gaps occur, and so, even up in the Northeast, right, they had to combine their federal logbooks with MRIP to get the overall total estimates, and so a similar process would be here, and the gaps are, again, not necessary to the intent and purpose of that program, and it's just the overall need of how you look at information coming through.

CHAIRMAN BOGGS: Okay. I'm just making sure that I have a clear understanding of what is coming at us. Mr. Strelcheck.

MR. STRELCHECK: I mean, just to put some further clarity on that, if you think about red snapper currently, a lot of the state surveys sample not only private vessels, but statelicensed charter vessels, right, and we then monitor the catch limits with private and state-licensed vessels combined, and then federally-permitted vessels are separate for their quota,
but, for a lot of species, that's not the case, and a lot of species are caught in state waters, like gag grouper off of Florida, and gray snapper, just to name a few, and so, the greater the proportion of landed catch that comes from state waters, right, the more we're having to kind of patch together both state and federal surveys, in order to get the full picture of what's been landed.

CHAIRMAN BOGGS: So, ideally, all the states, as well as the SEFHIER, the headboat survey, all your datasets, they would collect information on all species, and is that a fair assumption?

MR. STRELCHECK: I mean, that's certainly the gold standard, and the desire, right, that we want to have catch and effort for all areas fished and all waters fished.

CHAIRMAN BOGGS: Okay. Anything else on this presentation? All right. Dr. Masi, are you with us?

DR. MICHELLE MASI: Yes, Madam Chair. I'm here. Thank you.
CHAIRMAN BOGGS: All right. Dr. Masi, whenever we -- I don't know, and do we have the slide presentation to bring up here? Okay, Dr. Masi. Whenever you're ready.

## PRESENTATION: SUMMARY RESULTS FROM SEFHIER

DR. MASI: Okay. Thank you. Before we begin the conversation, I just wanted to remind everyone that, before 2021, we had absolutely no SEFHIER data in order to improve our understanding of how the for-hire fishery was operating, and, also, just recall that the SEFHIER program began in January of 2021, and so, in that first year, with the new program in place, when we had pretty low compliance, and we didn't have good compliance really until our constituents became familiar with the new reporting requirements, and so the SEFHIER data that we did collect in 2021 is also unusable.

All right, and so, by 2022, as you can see in that middle donut there, we had over 100,000 SEFHIER trip reports that had been submitted to us, and, really, the important point just being that those trip reports help us better understand how the forhire fishery is operating, in both space and time, and remember that it's the declarations that are providing the enforcement officers with the information on where and when to meet a vessel at the dock, and SEFHIER actually used the declarations as well, in order to know when a logbook was required, and we used that
for program compliance tracking purposes. Then, of course, it's the logbooks that give us the information needed to estimate catch and effort for the fishery.

Now, the other two figures on this slide are just showing the total number of vessels that declared at least one time, and that's the figure on the left, and the total Gulf-permitted vessels that submitted at least one logbook in 2022, and that's the figure on the right, and so, from these two figures, you can, of course, clearly see that we still have over 500 Gulf SEFHIER vessels that never submitted either a declaration or a logbook in 2022, and so that's where having VMS, or at least some sort of comprehensive trip validation program in place, really becomes truly critical in our ability to understand if those 500 vessels were either inactive in 2022 or if some of them were actually just not reporting.

Before we dig more into the SEFHIER program compliance for 2022, I wanted to just show this breakdown of the number of Gulf SEFHIER logbooks that we received by month in 2022, in order to just emphasize that, with this SEFHIER data, we can actually begin to better understand the peak months of effort for the Gulf for-hire industry, where you can clearly see that the months of June and July are really standing apart from the other months, in terms of the fishing activity for the year.

Here, we're using the declaration data, in order to better understand the effort across days for an average week in 2022, and so, based on the figure, you can see that the busiest day, on average, was Saturday, and, of course, that's probably not too surprising for most, but what's interesting, to me, is how closely the other days actually trail behind Saturday, just meaning that really any day could be a good day for business, on average, and, you know, this figure actually reminds me as well why it is that my for-hire captains call me and say they can't make any of our daytime meetings, or webinars, because, you know, you can clearly see that they're definitely a hardworking bunch, on average.

Now let's jump to a look at the overall 2022 Gulf SEFHIER program compliance, with regard to the reporting requirement, and so, in this figure, we're showing the percent of compliant Gulf SEFHIER vessels, and that's the light-blue bar, versus noncompliant vessels in 2022, and, now, there's a couple of things that you should consider before trying to interpret this figure.

The first is that this analysis only tells us compliance in relation to if the vessel declared that they were intending to
fish, and did they then submit an associated logbook for that trip, and so what it's not telling $u s$ is anything about nonreporting, and that's definitely where we would need VMS, or at least some sort of trip validation program, in order to capture the non-reporting vessels, and the second thing to consider here is something that we actually learned through operating the program, is that vessels can be non-compliant up until permit renewal, and then, at that point, they will submit all their outstanding trip reports, and so they do that in order to come into compliance through any other permit.

Unfortunately, that can actually impact data usability, but we can't capture that here, just by looking at a snapshot of the reporting compliance in 2022, and so what we wanted to do is take a deeper look at any late reporting, and I will show that analysis in a couple of slides, but, importantly, $I$ do want to just note that we do try to circumvent that issue of late reporting, and the SEFHIER team does actively call and email our constituents when we come across any non-reporting vessels in our database.

Then a final point here, on this figure, is just that, of the 22 percent of non-compliant vessels in 2022 -- A vessel may only be missing just one report, in just one month of 2022, and so, really, we can't show that here, just by looking at the overall compliance for the year, and so let's jump to the next slide.

What we did here is we quantified the percent of non-compliant vessels by month, and just a few things to consider here, and so the first is that the percent of non-compliant vessels is actually distinct from month to month, just meaning that a vessel may be non-compliant in January, but then be compliant in every other month of 2022, and another key point is just that the overall trend, across all of the months of 2022 , is showing that, in any given month, there's never more than 9 percent noncompliant, and you can see that based on the figure.

Importantly, we also did look at this week to week, and we saw that even fewer vessels were non-compliant on a week-to-week basis, and this just means that most Gulf SEFHIER vessels that were reporting were actually reporting correctly most of the time, and, of course, that's great news.

Now, some final considerations are that remember it's not accounting for any non-reporting vessels, and we need VMS, or validation checking, for that, and then this is just a snapshot in time, and so it's based on when we pulled the data from our database, meaning that, if we pull the data late in 2023, which
we actually do that, then a vessel could have submitted their late reports between the end of 2022 to the date that we pulled the data, and so, considering that, we wanted to delve further into this issue of whether or not there was any late reporting, and so let's jump to that in the next couple of slides.

All right, and so, in these figures, we're showing the proportion of one-time versus late declarations, and that's the figure on the left, and on time versus late logbooks, and that's the figure on the right. Now, here, we can actually quantify whether a report is late, using the transmission date and time fields, which we actually require our reporting application vendors to send us, along with every trip report that we receive, and remember that a Gulf SEFHIER declaration was considered late if it was transmitted from the app after the vessel moved on water, and so, here, we quantify late declarations as those that were transmitted after the reported trip's start time.

Given that, you can see that about 30 percent of the declarations that we received in 2022 were sent to us late, and so that would be, you know, obviously an issue for enforcement officers, as the declarations were meant to alert them in advance on where and when to meet the vessel at the dock, and so that's definitely a compliance issue that the council should consider as we look to stand back up a Gulf SEFHIER program.

Now, for late logbooks, recall that a Gulf logbook was considered late if it was transmitted to us after the landings were offloaded, or more than thirty minutes after arrival, if they didn't land anything, and so, that said, there really isn't a robust way to determine if they followed those requirements without doing a detailed analysis that also looked at VMS positional data, and so we need to have actually more boots on the ground to know when they were offloading their catch.

Here, what we did is just assume a twenty-four-hour buffer, given that actually some captains have told me that they may not offload their catch until as far out as the next day, depending on when a trip returned, and so, here, in this analysis, any logbook that was sent to us more than twenty-four hours after the reported trip ended is being considered late. Given that, you can see that only about 17 percent of the logbooks that we received in 2022 were sent to us more than twenty-four hours after a trip ended, which, you know, is pretty good news.

All right, and so now let's consider data usability. All right, and so another thing that we wanted to better understand, in
reference to late reporting, is whether the late reports were submitted within thirty days of the trip ending, and so this analysis is considering two things. The first is data usability, just noting that most trip reporting programs aren't going to make use of any trip reports that are submitted more than thirty days after a trip ends, and this actually has to do with what's called recall bias, and so just trying to minimize the error in our final analyses and estimates.

The second reason we wanted to look at this, and $I$ kind of mentioned it already, is that we noticed an issue, which actually happens to be more widespread in the South Atlantic SEFHIER program, where permit holders were waiting until permit renewal to submit their trip reports, and so what this analysis is showing is that less than 5 percent of the late logbooks were submitted more than thirty days after the trip ended, which means that most of the 2022 Gulf SEFHIER program logbooks would be useable for analyses, and it also suggests that most of our Gulf constituents weren't waiting until permit renewal to come into compliance with the reporting requirements, and so, of course, both of these findings are very positive for the Gulf SEFHIER program.

On this slide, we wanted to show the 2022 Gulf SEFHIER program compliance in relation to the South Atlantic SEFHIER program compliance, and, now, remember that the Gulf program did have the stricter requirements, with the VMS and declarations, which were required for every movement on the water, and the requirement to submit the logbook prior to offloading, and then, of course, the requirement to complete the validation survey if the vessel was intercepted at the dock.

Now, the South Atlantic SEFHIER program may have fewer permit requirements, but, as you can see from the figure on the right there, which is showing that nearly 58 percent of the South Atlantic SEFHIER program vessels are non-compliant in 2022, that having a more lax program does appear to come at the cost of data integrity, and so that's something that the council should definitely consider.

A final point that $I$ just wanted to make on this figure, or this slide here, is that the South Atlantic Council is actually in the process of considering how to improve the South Atlantic SEFHIER program, and so it's likely to increase the South Atlantic program requirements, and so, again, just something to consider.

Now let's consider VMS compliance in 2022, and so just to note
that, for this council meeting, we really didn't have time to get into analyzing VMS compliance related to if positional data suggested that, if a trip occurred, did the vessel actually submit their trip report, but we did want to show, just generally, what the VMS compliance looked like in 2022.

Here, the donut on the left of this slide is just showing the proportion of the total Gulf for-hire permitted vessels that were VMS compliant by the end of 2022, and you can see that's about 84 percent, and $I$ do want to note that, in February of 2023, when the program was set aside because of the lawsuit, that the number of non-compliant vessels was actually down in the single digits, and the figure on the right there is just emphasizing the ramp-up of vessels who had a positioning VMS following the VMS requirement taking effect, which, if you remember, was on March 1 of 2022.

All right, and so now jumping to the SEFHIER validation survey, and so, here, we're quantifying the rate of completed validation survey dockside intercepts, and that's being shown actually by that red-dashed line across all months, and, here, the overall SEFHIER validation survey interception rate, in 2022, is being calculated as the average of the number of completed validation survey interviews, and those are the light-blue bars, divided by the total number of Gulf logbooks per month, shown by the darkblue bars, and so, based on this, we found that the mean SEFHIER validation survey interception rate in 2022 was 5.2 percent, which actually seems pretty reasonable, when we compare that to other programs.

In addition to telling you all how much data that we successfully collected, and also, of course, how great our Gulf constituents were doing with meeting the reporting requirements, I want to just delve a little bit more into really the utility of the SEFHIER data.

On this slide, I mapped the approved landing locations for the Gulf SEFHIER program, and just remember, of course, that the Office of Law Enforcement used the reported landing locations to know where to meet a vessel at the dock. Now, here, the map is also delineating the private, or what I'm calling likely inaccessible landing locations, from those are public marinas or boat ramps.

The underdetermined just means that, using Google Earth, I wasn't able to determine if that private business, or private marina, was actually accessible or not for in-person officers, and, importantly, these private landing locations, since they
may be inaccessible to law enforcement -- It's definitely a discussion that we need to delve further into as the council is developing new requirements for the Gulf program.

In this figure, we're showing the range and frequency of reported values for two of the logbook fields, and those are fuel used and trip fee, and, you know, based on the data that we collected, we can use this to then determine the mean, or, in other words, the average, fuel used in 2022 for our charter and headboat trips, and you can see those numbers at the top of the figure, and so the mean fuel used was about seventy-five gallons, and the mean trip fee was about $\$ 1,300$.

You know, this analysis is definitely informative, but I just want to say that it's really scratching the surface, and showing you all the total utility of collecting economic data in the SEFHIER logbooks, and, you know, the economic data that we collect, or collected, in the SEFHIER logbooks is definitely a huge improvement over any existing economic data collection programs in the Southeast, and, of course, the intention is to use that data to better inform things like disaster declarations, which, of course, would directly benefit our forhire permit holders.

On this slide, we're showing a heatmap of the reported trips by our Gulf-SEFHIER-permitted vessels in 2022, and, here, we've mapped those trips using the latitude and longitude coordinates that actually get reported in the primary area fished field of the SEFHIER logbook, and just noting that we also limited this map to show only the trips that occurred within the Gulf Council's jurisdiction.

Now, in order to interpret the figure, the color scale that we used to map the trips is shown at the top of the figure, and so you can see that the scale ranges from one to the total number of logbooks, and that's at a five-by-five-minute square, which essentially just means all the trips that are within about a twenty-five to thirty square-mile box, and so, based on the darker-purple colors that are shown in the map, you can see the areas in the Gulf that had the highest SEFHIER fishing activity in 2022.

We can compare that previous figure to the SEFHIER declaration data, where, here, we're mapping the latitudes and longitudes of the reported landing locations from the SEFHIER declarations. Now, in this map, the legend is showing the scale of those declarations, which here it's ranging from 1,000 to 9,000 declarations, and the 9,000 is shown by that darker-purple
color, and so, comparing this map to the previous slide, you can see those same hotspots being emphasized, even though we're using the different datasets, and so that's, of course, good news, that the declarations, and the logbooks, are telling us the same story about the for-hire trip activity in 2022.

All right, and so, in this figure, $I$ wanted to show an illustration of the recorded targeted species from the logbook data, and so, here, $I$ aggregated most individual species into what I'm calling a species guild, and that's color-coded and defined in the figure legend over there on the right, and so remember that we don't have any final catch and effort estimates yet from SEFHIER, but we can use the raw data to get a preliminary understanding of what the fishery was targeting in 2022, and just noting that the primary targeted species is actually a required field in the SEFHIER logbook, and it's separated from the required caught and discarded species field.

That distinction between what was targeted, versus what was caught, is actually important in deriving the final effort estimates for each species, where, in general, if you think about it, if you're targeting something, but you're not catching it, then effort is higher, and vice versa, and so, in this figure, each bar is showing the proportion of the total number of Gulf logbooks that targeted the species guild shown, and then the data is split across four quarters, on the $X$-axis, in order to show you all some seasonality in the data.

Now, the months that are included in each quarter, and also the total logbooks in each quarter, are also shown along the $X$-axis, and so, basically, the figure is illustrating that, for example, in the first quarter, we received 5,204 logbooks, of which 1 percent of those logbooks told us they were going to target red snapper.

All right. Finally, in this figure, I'm showing a preliminary look at the catch reported in the logbooks. Now, the interpretation of this figure -- It's pretty much the same as the previous slide, but, here, the proportion shown are out of the total caught species for that quarter, and so, for example, in the first quarter, 5 percent of the 230,000 -ish caught species were red snapper, which is roughly 12,000 red snapper that were reported as either landed or discarded in that first quarter, and so, in general, the relative trend, if you're comparing this figure to the previous, it's pretty similar across quarters, which just suggests that they are catching typically what they're targeting, for most species, and across most quarters, with some exceptions, of course, which would be
more easily teased out at a species-by-species level, and that's something that we can do, once we have our final catch and effort estimates.

To wrap up, $I$ just wanted to remind some of the key takeaways from the presentation, and so, overall, the 2022 Gulf SEFHIER program compliance was reasonably good, and 100,000 trip reports were received, and we had more than 91 percent of our vessels comply in each month, at least with the reporting requirements, and 83 percent of the logbooks were submitted within twenty-four hours of the trip ending, and less than 5 percent of the logbooks were submitted more than thirty days from the trip ending, which just means that most of the data that was reported would be usable for analyses, and 84 percent of the vessels were VMS compliant by the end of 2022.

Now, in comparison to the South Atlantic SEFHIER program, 59 percent of the South Atlantic SEFHIER vessels were non-compliant in 2022, and, finally, without VMS, we would really need some sort of a comprehensive trip validation program, in order to determine any non or misreporting vessels.

I just want to take a quick moment to acknowledge that $I$ was not the only one doing these analyses, and all those great folks there contributed to this presentation, and so I wanted to take a moment to thank them, and also the IPT members, because they helped to determine which analyses were going to be most useful today, but, most importantly, I want to especially thank our Gulf for-hire constituents, because, of course, without you all, we would not have any of this data to share, and so truly thank you for your time and support in the Gulf SEFHIER program, and, with that, $I^{\prime \prime m}$ going to open the floor to questions, and just a brief reminder that there's still one more presentation to go.

CHAIRMAN BOGGS: Does anyone have any questions for Dr. Masi? Captain Walker.

MR. WALKER: Thank you. I think I already know the answer to this question, but, using this data, we should be able to see how many vessels, charter vessels, participated in each particular fishery, and like you could say 325 boats participated in the gag fishery, or 700 boats participated in the red snapper fishery, and, you know, perhaps you could identify -- I would be interested to see that, actually, because, you know, we have discussions about other things, that we argue about how many people participate in each of the different species fisheries, and so I'm sure that data is in there, and could easily be parsed out to -- I would be
interested in seeing that. Also, a question, and what other purpose, other than disaster declaration, is the fuel used an important data point?

CHAIRMAN BOGGS: Dr. Masi.
DR. MASI: Thank you for that question. I am not an economist, and so I don't want to answer that and have it be a wrong response, and so, if somebody else wants to take that question, that would be great.

CHAIRMAN BOGGS: I knew that Dr. Diagne would raise his hand.
DR. ASSANE DIAGNE: Yes, Madam Chair. Fuel use, essentially, is one of the main costs of a trip, and so, at the end of the day, you would like to have a good sense of the difference between the revenues and the cost of a trip, and the other thing collected there that she showed is the price, of course, which is essential to determining the revenue side of things, and, on the cost side, you need to have essentially fuel costs.

CHAIRMAN BOGGS: Captain Walker.
MR. WALKER: I thought that I might point out that it would be my estimation that some of the compliance problems in the South Atlantic are because those permits are not on moratorium, and you can have a permit for twenty-bucks in the South Atlantic, and so there's a lot of people that just have one to have, or they're banking on it going on a moratorium, and they'll have an investment, or something like that, and so I know -- I fish in the South Atlantic somewhat, and I can tell you there's a lot of guys that don't really even charter fish that much that are sitting on those permits, and so that may well be showing up in the compliance estimates for the South Atlantic.

CHAIRMAN BOGGS: Mr. Gill.

MR. GILL: Thank you, Dr. Masi, for the report. There's a lot to absorb here, and a point that struck me was, on slide 15, it was the absence of reported fishing in the western Louisiana area, and then you go to slide 16 , and, if $I$ read that correctly, it looks like there's a lot of landings there, relative to on either side, and so that suggests, relative to Dr. Diagne's comment, is they're fishing in one place and landing in a place that is quite a ways from where they're fishing, and has any analysis been done of this phenomenon of fishing versus landing locations, to see how much of this back-and-forth may be done?

CHAIRMAN BOGGS: Dr. Masi.
DR. MASI: I would say there hasn't been any formal analysis done. We have taken a look at the nuances between, for example, where they started and where they ended, but $I$ don't have any formal answer, as far as what that data looks like. If that's something the council is interested in, that's something we can, you know, definitely come back to you all with, maybe in January, or whenever the next council meeting is.

CHAIRMAN BOGGS: Okay. Any other questions from the committee? Mr. Strelcheck.

MR. STRELCHECK: I guess I just wanted to make a couple of additional comments and takeaways, based on my review of this presentation prior to the meeting, and slide, $I$ think, 10, showed the comparison between the Gulf and the South Atlantic, and Ed raises a good point, right, and we have open-access permits in the South Atlantic, which can affect, obviously, compliance, because what's the penalty?

If you lose your permit, you can go and apply for a new permit, but $I$ will say that the accountability measures in the South Atlantic, and I use the term "accountability measures" maybe differently than we're talking about, you know, catch limit monitoring, is very different, right, and you have a week, essentially, to report your trips, which is a long period of time, and then, if you are not met at the dock, or if you're not doing any sort of hail-in or hail-out, reporting is much more difficult them for us to determine was a trip made, was that trip reported, is there information about that trip.

I know we've kind of talked about the Gulf as kind of the gold standard, the way that it was previously set up, and then there's been a suggestion of moving towards the South Atlantic model. There's more to dig into here with the South Atlantic model, but $I$ would caution, obviously, based on our experience with the South Atlantic right now, that we don't think that that program is functioning the way it could, and we do have a lot of gaps, in terms of non-reporting and non-compliance.

The other comment I will make is we did not present any landed catch statistics, right, actual total catches or discards here, and that is something we're continuing to work on, and, essentially, we're driving the car as we're -- We're building the car as we're driving it, or trying to drive it, and, ultimately, at the end of the day, that is what our goal is, is
to get to actually some catch statistics.
With that said, the program is set aside, and so any sort of catch statistics that we derived for 2022 will likely look different, relative to any new program that's designed by this council going forward, but, overall, I was pleased with the level of compliance, and I think the compliance -- Ultimately, one of the questions $I$ asked was did that change as the VMS requirements came online, and that would be another area to look at, and, unfortunately, those VMS requirements and the whole program has been set aside, but the VMS, I think, was going to be an important tool to, obviously, help us with compliance and knowing when trips were occurring and ensuring that those reports were being made. Thanks.

## CHAIRMAN BOGGS: Mr. Anson.

MR. ANSON: Thank you, Andy, and you may have answered this question that $I$ had, but $I$ was wondering if maybe, either you or Dr. Masi, you could indicate whether or not there has been any analysis, up to this point, that looked at the validation, the dockside survey, and the compliance, if you will, of the report, and the timeliness of the report, to see what kind of proportion, what adjustment, could be made based on 2022 data, for those trips, on those vessels that had VMS and didn't have VMS, and I'm just curious.

DR. MASI: I can respond to that, and so that was one of the things that was on our list, and, unfortunately, we just -- We only had three months to get this data analyzed and have it ready for presentation, and so we didn't get to that one, but, again, if that's something the council is interested in seeing, we can definitely put that on our radar and get that done for potentially the next council meeting.

CHAIRMAN BOGGS: Thank you, Dr. Masi. Any more comments from the committee? Mr. Donaldson.

MR. DONALDSON: Thank you, Dr. Masi, for the presentation. About the compliance, that's Gulf-wide, and $I$ was wondering if you had looked at -- If you're able to break it down and see if there were areas, specific areas, that had higher non-compliance than others, and $I$ was just curious if that would help focus some efforts on getting compliance better.

CHAIRMAN BOGGS: Dr. Masi.
DR. MASI: Great question, and we have, again, informally looked
at it, and we haven't done anything formal. You know, if the program was set back up, then definitely I agree with you that that would be a great thing to look into, to determine where we might be able to focus our outreach efforts.

CHAIRMAN BOGGS: Any other questions? So I have a couple, Dr. Masi. Some of them may be obvious, but I do want to get it kind of on the record, so that, as we continue to have these discussions, we have the history of what we've done, and how we got to where we got, and so, on slide 3, you have the declared, versus never declared, and 533 that never declared, and is there any way to determine latency, or $I$ suppose that comes when the permits are due for renewal?

DR. MASI: I probably would turn that over to Dr. Stephen. I'm not great with latent permits, but, essentially, you know, the way that we would determine it is using the VMS, right, and so, if we could take their year's worth of VMS data, and it showed that the vessel never moved on water, you know, then we would say that that was for sure a person sitting on their permit, and just holding onto a latent permit, but, other than that, I think maybe Dr. Stephen, or Mr. Strelcheck, have a response.

CHAIRMAN BOGGS: Dr. Stephen.
DR. STEPHEN: As Michelle said, we're trying to look at it as whether someone is not reporting at all or is latent, and the typical way we identify latent is by who has turned in a logbook and who has not, and so, going outside, some of the other tools that potentially are in there, that we could start to distinguish, is VMS, obviously, and positioning, and that requires a VMS to be turned on, and so, if someone didn't have it installed, and was not reporting, it makes it more difficult.

If you have the VMS installed, we can also probably look at some analysis of power-down exemptions, and the length of time for those, and that would be a strong indicator, if you have a power-down exemption, that you're not out fishing, at least for a portion of the time, or for a long period. As Michelle mentioned, we're really scratching the surface of all of this that we're going through, but some way to identify whether a vessel has left or not is really going to be critical as we move forward.

In the South Atlantic, we also had did not fish reports, and so you're submitting some legally to us that's either $I$ did not fish or a fishing report. Once again, without boots on the ground, it could be difficult to maybe distinguish whether did
not fish is latency or something else was occurring within that.
CHAIRMAN BOGGS: Thank you, and I bring that up because, as I recall, when SEFHIER was being developed, one of the things was to address the latency of permits, to get some of these permits out of the system that are not fishing, and to see what we're really dealing with, and so that's why I wanted to kind of bring that up. Again, on slide 11, SEFHIER compliance with VMS requirement, my assumption is this would include duallypermitted vessels, because they are part of the SEFHIER program, correct?

## DR. MASI: That's correct.

CHAIRMAN BOGGS: Then, with regard to the disaster declaration and the need for the economic data, which I'm supportive of that, and I know a lot of the fishermen are not, but is there an example, that either you or maybe Dr. Diagne could give us, where this information has actually been used in some kind of a situation that might encourage the fishermen to buy into this economic reporting? Dr. Diagne.

DR. DIAGNE: Thank you, Madam Chair. What $I$ would say is that, typically, in our amendments, we use, on the charter/for-hire side of this, a measure that is called a producer surplus, meaning the surplus above and beyond the cost of providing a trip, and, obviously, for you to get that, you need to have a clear understanding of both sides, meaning the revenue side.

Revenue, total revenue, in the simplest way, I guess, is price times the number of trips, and so, if you don't have the price, it's impossible for you to get there as directly as you could, and that's the thing, and, on the other side of it also, to begin to get to some sense of profitability, you have to have some measure of the costs, the variable costs that is, and fuel costs is one of the key drivers of that, and so that is the reason why you need, at the minimum, price of the trip, and also the price of fuel, and, typically, we use measures now that are based on studies that have been conducted, but it would be really nice, going forward, to be able to base our estimates on actual data collected in the Gulf. There has been, prior, some limited sampling, right, production of economic data, but this program here would be very helpful to help us firm up those two estimates, if you would.

CHAIRMAN BOGGS: I know we have another presentation to get to, and so I won't delay this too much, but $I$ don't know if something like what the commercial logbooks require, where you
take a sampling, and $I$ don't know how they do it, month or quarter, of -- I know, during the Headboat Collaborative, we did -- Again, it's, you know, recall, but you should have the records, and I know, at the end of the year, we were sent a survey and asked to complete it with some of the economic data, and so maybe that's another way that we could look at it, either by sampling or an annual type of estimation, and $I$ don't know, and those are just a couple of suggestions. Mr. Strelcheck.

MR. STRELCHECK: Madam Chair, do you report economic questions to the headboat survey?

CHAIRMAN BOGGS: Yes, sir, we do.
MR. STRELCHECK: How long have you been reporting those to the headboat survey?

CHAIRMAN BOGGS: We bought our headboat in 2002, and we started reporting economic data, I believe, five or six years ago.

MR. STRELCHECK: What do you estimate is the burden on your time to complete that information for each logbook?

CHAIRMAN BOGGS: For just that portion of the logbook, maybe fifteen seconds.

MR. STRELCHECK: Okay. I raise that, obviously, and I think it's an important discussion to have, and I'm not trying to dismiss, obviously, the concerns that have been raised, and so I think that's just something to keep in mind, and we do have the South Atlantic SEFHIER program that collects that data, and we have the headboat survey that collects that data in the Gulf already.

I was going to add that -- You mentioned about examples for disaster determinations, and keep in mind that the 2023 appropriations language modified our disaster determination requirements, and it now includes for-hire vessels. Previously, for-hire vessels were excluded, and it was only for commercial fisheries that we could do disaster determinations, and so this is new territory that we're entering into, and so certainly $I$ see that as a benefit, going forward, is to have that information, and data, for future disasters.

CHAIRMAN BOGGS: Thank you for that information, and $I$ think that is important, and $I$ appreciate the questions about the headboat survey, because a fisherman, and $I$ have said this in the past, and I happen to do it for our vessel, but I promise
you that any captain on their vessel knows what the cost of fuel is, and it does not matter, and it doesn't take long to fill that in, and you know what you charged for that trip, or what you bartered for that trip, and so those are very easy questions to answer, but, with what you just brought up, Andy, and without this information, and now that the charter/for-hire is recognized, $I$ think this will be very essential, and, you know, I look at it too as we talk about, with the commercial fleet, with the loan programs that are available, you know, SBA loans that are available, and all this information, in my mind, becomes very critical for those types of things, and so I really think it's something we need to look at and encourage the fishermen to think about, how it can be helpful, and it doesn't take long to do.

I will move on, and $I$ do want to ask one other question, and, actually, I've got a couple more, but one in particular, and Mr. Gill kind of brought it up, and this has been a discussion also at the onset of designing the SEFHIER program, is those boats that are trailerable, and so how many boats have multiple landing locations, and that would be something, in the future, that I would be interested in. Is your homebase, and I'm going to pick on them, because $I$ always do, but, in Louisiana, you trailer your boat to Orange Beach, because I see that quite often.

That is impactful, in my mind, to see how many of these boats are moving, but, on the flip side, we have boats from Orange Beach, and I don't know so much that they do now, but we go to Venice, in the winter months, and fish out of Venice, and so I think it's kind of important to see where these vessels are based, and where they're actually fishing, and so thank you for that, and so we have one more presentation, if there's no more questions. Dr. Frazer.

DR. TOM FRAZER: Thanks, Susan. I'm not on the committee, but I just wanted to follow-up on the discussion, as it relates to the economics, and, you know, when Dr. Stephen gave her presentation, she gave a justification for data collection, and there was no socioeconomic justification in that presentation, and then, when we get to Dr. Masi's presentation, there is a mention that the reason that we collected the economic data, or the primary reason, was for disaster declarations.

Not exclusively, right, and $I$ get that, but, in the months, and years, that we've been working on this, part of the pushback for the SEFHIER program has been the data reporting burden, right, and it seems, to me, that -- I'm all for the economic data,
right, because part of our charge as a council, obviously, is to make decisions that are in the best economic -- Or the best interest of the nation, and part of the way that you do that is by putting a value on those fisheries.

What is not clear to me, in this process, is why the questions are asked specifically, and are the data that might be collected from this survey collected in a manner that allows you to make an apples-to-apples comparison, for example, of what's generated in the commercial sector or in the true recreational sector?

I'm not sure how I can use this information, even though there are sections of the amendments that report on the economics, right, and they're not extremely helpful in that regard, and so what I'm asking for is, when we're thinking about how to develop the questions, can we more clearly articulate why we're asking those questions, right, and then might we be able to provide examples of how we could compare the output, or the results that are generated, right, to make some comparisons, and there's a number of comparisons that you could make, but that's what $I$ am asking, moving forward, and, again, $I^{\prime} m$ not on this committee, but $I^{\prime} m$ just trying to better understand how we collect the economic data and how we use it, moving forward.

CHAIRMAN BOGGS: So I thank you for those questions, and that's one of the reasons I was glad that Dr. Diagne kind of gave us an explanation as to why the data is needed, and, I mean, I will look to Dr. Stephen to maybe, in the future, address your question, and, you know, do we look at how it is being asked in the commercial logbooks, and do we modify how we ask the questions, or the order we ask the questions, and there's a lot of things in what you said that $I$ think we can look at and discuss, and I don't know, Dr. Stephen, in your next presentation, if this -- My mind is so full right now, but if you will address any of that, but, if you have a response to that, and then, if not, or after so, please proceed with your next presentation.

DR. STEPHEN: I will say what you guys saw was my biologist bias in doing the reports, and so we'll get together with our economists, to make sure that we have more information on all that information for another presentation.

CHAIRMAN BOGGS: I agree, Tom, that that's very important, because, without that, to get the fishermen to be responsive to that, and willing to answer the questions, and we need to be able to justify it and make it very clear as to why that information is needed, and so thank you for that. Dr. Stephen.

## PRESENTATION: FOR-HIRE DATA USAGE AND NEXT STEPS

DR. STEPHEN: All right, and so we're up to our third presentation, and I would like to just kind of acknowledge that, for all these presentations, as Michelle did, there was a core group of us working on it, and so it was not just the Regional Office, and we had the Science Center working with us, the Office of Science and Technology, and council staff.

Now we're going to kind of get into where we want to go into discussion within what the council would like to do, and so, to start that off, I wanted to bring up the original program's purpose and. The original purpose was to improve the accuracy and the timeliness of the landings, the discards, the effort, and the socioeconomic data of the federally-permitted for-hire vessels participating both in the reef fish and coastal migratory pelagic fisheries. The need was to improve management and monitoring for the Gulf fisheries.

I would ask that the council think about these purpose and needs and any modifications that you might want with the different presentations that we have going forward.

To start assisting with where we want to go, with how we're going to use the data, or what we would do to rebuild it, I want to go over a couple of different points within this presentation, looking over the different data needs for stock assessments versus management, looking at those comparisons of the different data streams that we would have to combine together for management, and then different components of how you would want to think about building a data collection program or survey, and then the different components that assist with validation and compliance.

I am going to start off here with a slide that $I^{\prime}$ ve been doing for a while now with a couple of other groups, is looking at the differences between the needs for stock assessments and the needs for management. While they both need a lot of data, there are some slight nuances within that.

When we think of a stock assessment, we're examining what's happening with the overall trends of the fishing, and so looking at the current and past statuses of fish stocks, and we're trying to answer information about overall stock size and provide enough information that we can set criteria to make sound management decisions.

When you're looking in a stock assessment, you utilize both fishery-dependent, and that's collection directly from the fishermen, as well as fishery-independent data, and independent data could be the NOAA white ships or other research-oriented data collections.

You're typically looking at overall catch, relative abundance, and different biological information, such as life history, in order to drive that stock assessment, and you're primarily looking at an annual level scale when you're working within a stock assessment.

When you flip over to management, we have a slightly different purpose, and we're using that information from the stock assessments, but we're also challenged with being able to predict different changes in management, and do we want to change a size limit, a bag limit, and how are we going to monitor within season, using the data we get?

In management purposes, we're typically fishery-dependent driven with our datasets, and we're requiring a more finer level temporal and spatial scale than what you might see within a stock assessment. For example, we get data weekly, monthly, or by a wave, and we might be looking at different spatial considerations if you're splitting the Gulf into two sections, or, at times, we've looked at Florida, and we've split it into three sub-regions as we're looking at information.

We're also looking at that catch per unit effort and using that to drive some of the different limitations that we might put in place, and, in particular, we're interested in discard disposition and how that would impact any management change. We also use target species to look at the different economic information as we're moving forward in management, as we have to balance the social, economic, and the biological consequences within our amendments.

If you think about kind of what are all the components that make up the whole picture of a program survey design, there are components that are pre-trip, and they occur before you leave on a trip, and there are components that happen within the trip, and we also have measures that we might put in place for compliance or validation, different quality controls, different enforcement, and then the one that is sometimes underrated, but I think is highly valuable, is your customer service. Do you have enough staff there to answer the questions, particularly in a larger fleet, as they're going into something new or different, and remember that SEFHIER went from no reporting to
full-on electronic reporting, which is a pretty large leap.
All of those different components actually work kind of hand-inhand together, and this is just a graphic to kind of explain different elements, and I'm not going to get into a lot of depth or detail, and this is one that we can use as reference, as we have discussions. When you think of typical pre-trip components, and so these might all relate directly to for-hire, but in general to data collection, and we're looking at when is someone going out on a trip, and how are they going to tell me when they are, how often do $I$ want them to tell me, at what time before the trip, and wherever they might be landing at.

When you look at trip components, those also include some prelanding components, right, and they're out on a trip, and you might want information, when they're coming on, of where they're going, and what sort of reporting tier are you looking at, the trip-level reporting tier, or do you want gear-level, if there's multiple gears used, or do you want set-level?

Each of those add different components, and $I$ will say this probably a lot through the presentation, but it's finding where that balance point is of what you're doing when you're collecting it and where the burden is, both on the fishermen and on the agency, and then you look at things like what kind of fields do you want within the logbook, or how frequently do you want it submitted, and you've already seen kind of the results of submission prior to offload, versus weekly submission, of trip-level reporting, and so you can see how that plays into your overall data collection.

When you're looking at compliance and validation, you want to look to account for information such as late reporting, and you might want to be able to track your fleet, to identify where areas are that are hotspots.

Different tools that you can use are things like did-not-fish reports, that we mentioned earlier, and electronic monitoring, and that is something that could be either VMS or a camera system, and that's not necessarily applicable in all fisheries, and then looking at validation surveys, ways you can mine website data, using observers or dockside samplers, and all of these provide more information on both compliance and validation together.

When you look at your quality controls that you're moving forward, you're looking at making sure, if you're electronic reporting, you're minimizing the amount of changes to data prior
to submission, and so, if you remember, paper logbooks come in, and the commercial is well aware of this, and you get it returned to you by mail, and you make a correction, and it takes a long time to get through those, and some of those are due to just how something was written, and it's unclear, or a field that didn't quite match what it was supposed to.

When you move to electronic, you can build those quality controls in at the get-go, and, if you do it right, you can actually build it where the report can't be submitted until it hits the minimum validations, and it sets a warning for another subset, and warnings would be where, hey, that value looks high, from our range, but we're going to still let you submit it, and it could be true, and it could just be an outlier.

Then you also want to look at your ability to audit and match under quality control. Can I match a pre-trip component with a trip component, and can $I$ match that with an observer or an enforcement action, and all these different ways in which we audit to make sure that we can identify a trip throughout, and a lot of that comes into play in determining do you have missing reports, late reports, accurate reporting.

In enforcement, there's a couple of different tools. Our audits actually really help with enforcement. It helps us identify egregious offenders, and we could kind of center where your enforcement activity is occurring. We have our typical summary settlements, and so enforcement will fine you if you're not doing something right, and then there's also the permit renewal, which I think we've talked about a bunch, and that is one of our measures that really seems to be very effective and with a low burden.

Then, finally, there is customer service. Do you have enough staff to man your phone lines, or your emails, and do you have information that's available on off hours, such as on websites or documents, and do you have enough people with technical assistance to help someone, and particularly electronic reporting can get complicated, with different ways of going through, and, when you think about all of these together, do you have enough assistance to ensure that someone is not fined for not understanding the regulations, rather than being vocally against what's going on, and you can start to see how all these different components work together, and, within each of these, there are many different choices the council can do to get to those different components.

I am not going to spend a lot of time on this slide, but $I$ do
kind of want to emphasize that, when we're looking at recreational data sources, what $I$ did here is list it in the first column going down, the different types of data that are useful, particularly for management, anywhere from your species identification to your landings, length and weight, spatial, effort, economic, and your coverage, and how large does your survey cover, and I've done a kind of quick comparison of what MRIP covers, what the headboat survey covers, and that the Gulf SEFHIER program does.

As I said, I'm not going to spend too much time on this. I think this is a good reference slide, as we're moving forward, to determine what the council wants to do when they're rebuilding SEFHIER, and which of these elements in the first column are really critical to where we're going with management and fit our purpose and needs, and then look at the different ways that we could potentially get there.

As we move into the validation and compliance components, keep in mind that these are often used together, and what they do is help to ensure the accuracy of that data, so that we're using good data for management that we feel is realistic and representative of that fishery itself.

There is a suite of different types of compliance and validation tools that $I$ have listed here, and a lot of these I mentioned already before. With each one of these here, it's another really good reference slide, and what does each different tool work towards, and so validation surveys work towards getting us better catch and effort information.

When you're looking at sort of a fleet positioning monitoring, where is the fleet, that might get you closer to potential fishing activity, and that's someone is out there, and we think they should be fishing, or where are your hotspots, or how are you doing overall trip tracking from the start of the trip to the end of the trip. Again, this is another reference slide that we can come back to as we have discussion.

Similar to what $I$ did with the recreational one, $I$ kind of also tried to put this into a little table, or graph, that's a little easier to read and show where each different tool has a more direct, or indirect, effect as you're moving forward. You can see, for identifying fleet activity, your third column in, there's a lot of different tools that will help us do that. Sometimes we want more than one tool working together, so that we can really accurately verify what's occurring at that point in time.

There are other columns where there is less tools that are available, and so, again, think of this as a way that we start to rebuild and mix and match different aspects to the program.

Also, as $I$ mentioned before, it's a balancing point. We're trying to figure out what are these different validation and compliance components available to us, and, what do they cost, and, here, $I$ broke down just roughly the cost both to the fishermen and the cost to the agency, and each are critical. When we see higher dollars, like more than one dollar sign, and think that like when you're at a restaurant, and, oh, that's an expensive restaurant, versus a not expensive one.

Then, some of the time, some of the burden is really on time, and not necessarily in dollars, although you can do a conversion to that, and so I wanted to kind of relay some of the different aspects as you're going through it. I will pick out here a did-not-fish report, and there is a time burden to the fishermen to fill it out when they're not fishing, but, overall, it's probably a low cost, both to the fishermen and to the agency, to collect that information, and it could be extremely useful.

On the flip side, let's take observers and electronic monitoring. Those are ones that have a high-dollar cost to the agency, and they could have a high-dollar cost to the fishermen. In some vessels, if you put an observer onboard, you're displacing a crew member in order to do that, and so you need to kind of weigh those different components as we're thinking about how to build the program.

This other one I will touch on, is when you get done with your trip components, how do you start to use that data for management, and, when we look at the analysis and use, there is similar -- A lot of different components that make up the whole picture.

You need to have a database system to receive your electronic information and have adequate infrastructure to have it. Initially, when you're starting a new data program, you have what is called data exploration, and so Dr. Masi's presentation -- As she mentioned, you're scratching the surface of it, and that's our initial feel for data exploration, is what data can $I$ get out of this dataset, what are the biases within it, how can I use it with confidence, and, once you've kind of achieved that point, you move into data integration, and how do $I$ merge this dataset with other datasets that $I^{\prime} m$ using, and those then come together for an overall statistical analysis, how am $I$ looking
at it statistically to show that we're going to have different management actions that will have these different effects.

That also goes hand-in-hand if you're comparing to previous surveys, or other things that were going on, and you need a calibration and certification component, so that you're looking at things in a timeline that's apples-to-apples, and then, finally, once you're done with all that, now you're ready to really use that data in management and have it structured so that it's well understood and you can look at it for different potential actions.

This slide here is, again, to kind of balance where those different interactions are and the interplays between things. With the original SEFHIER program, we attempted to really balance a lot of things, and some of these have been mentioned in the previous ones, and an example of where we did a balance point, rather than having a separate declaration and a separate pre-landing notification, is we were able to kind of merge those two concepts together.

We lost a little in doing that, but what that loss was wasn't really critical to what the purpose and need was of the program, and so it was an adequate way to balance those different burdens.

When we were looking at what they were recording, we opted to go with just the landed versus discarded, rather than discard mortality, and, again, at that point in time, we were moving from no reporting to full reporting, and we wanted to balance that, and that does not mean that you can't change these later on, as people get more familiar with how the reporting occurs.

Again, in the Gulf program, we did not use a did-not-fish report or observer coverage, because we had VMS, and that was the alternative mechanism to get to some of those same different pieces of information that we may have gotten through a did-notfish report or observer coverage.

Now we're kind of getting to the point where I'm going to have some questions up for the council to consider as they're working through and dealing with our discussion.

The first question will be what are the goals and objectives for the revised for-hire program? You can, obviously, start with what we originally had, and is there any way that we want to modify those purpose and needs, moving forward, or the goals and objectives? What information could a rebuilt program supply
that current surveys that we displayed do not capture? Are there certain data priorities that might drive the different goals and objectives or purposes and needs? Then the last one is we do have the for-hire advisory panel coming up, and is there any additional information that the council would like to move on towards those?

The next steps of how we're proceeding is we have already formed an interdisciplinary planning team, and that team has met multiple times before this council, and we've already started the data exploration that Michelle has seen, and we've got, I think, quite a few requests that we can come back with more information, and the council has provided some guidance on the goals and objectives, moving forward, and so I think I'm going to go back to the discussion, and $I$ will leave it up on this one, and we can go to any other slides, as we move forward, and I will turn it over to you for discussion.

DR. HOLLENSEAD: Certainly any discussion that the committee has in general, if they have any questions for Dr. Stephen, this would be a good time for it. Just as a council staff, I would, again, request that, as we begin to think about convening a forhire advisory panel, if there was any extra directives that you would like us to pass along to that group, and we'll make sure that those get noted and reported out to them.

CHAIRMAN BOGGS: Captain Walker.
MR. WALKER: This might be for Mara, or Andy, but could you tell me again exactly what it was that we were -- The reason the program was tossed originally, and like the thing that we have to take out going forward, or is there -- There must be something, obviously.

CHAIRMAN BOGGS: Ms. Levy.
MS. LEVY: So I will say there's nothing you have to take out, but, if you were going to leave it exactly the same, we would have a lot of explaining to do, mostly so -- I mean, there is the risk -- Okay, and so the decision was that, given the record before the court, the Magnuson Act did not authorize the twenty-four-hour VMS, because the court found it duplicative, because we were requiring fishing reports, and we were saying that this was to validate fishing, that we were already requiring information on.

We did not have a very robust record about why the VMS was necessary for the program to function and why we needed it for
validation, to get statistically-valid data, and, now, that we could fix, right, and we could have a more robust discussion about why you would need that.

The trickier part is that there was a $4^{\text {th }}$ Amendment argument that it was a search in violation of the $4^{\text {th }}$ Amendment, and the court did not specifically rule on that, but did express a lot of skepticism about whether this twenty-four-hour tracking, on these particular vessels, would be a violation of the $4^{\text {th }}$ Amendment, and so that is more tricky.

I'm not sure that we can come up with an explanation that would get us past that argument of requiring the twenty-four hours a day, seven days a week, no matter what they're doing, kind of VMS. We might need to make it more narrowly tailored, but, again, the questions are, if you want a VMS, can we more narrowly tailor it, and will that still give you the information that you would need to validate, and so $I$ wouldn't say that anything is off the table, except perhaps we may not be able to come up with a good explanation for twenty-four, seven-days-aweek VMS.

CHAIRMAN BOGGS: Mr. Strelcheck.
MR. STRELCHECK: Just to add to that, I mean, I think that's the question before the council, right, and so do we want to proceed with looking at VMS, but in an alternative means to how we implemented it in the previous program, and what would that look like, from a legal standpoint, justification standpoint.

The other component of the lawsuit related to the socioeconomic questions, and that was more of an Administrative Procedures Act violation, and so that's something where, if we are going to include those questions, and justification for those questions, we just need to build a better record, and rationale, as to why we would be including them in the program going forward.

CHAIRMAN BOGGS: Dr. Overton.
DR. ANTHONY OVERTON: Thank you, Madam Chair, and thank you, Dr. Stephen, for your presentation. A quick question, and it seems like there's a new method of collecting data that's probably going to get even more evolved, and that's the website data mining, and what does that look like, and what information do you get from it, and do you see that being kind of more important moving forward?

DR. STEPHEN: Sure, and I will start with that, and then I'll
probably kick it over to someone else to answer, and so, a lot of times, there is ways that you can look at data sites, particularly for the for-hire fleet. You're advertising trips, and you're getting information.

Some of the concerns with that though is if a website is not updated frequently, and so it could be out-of-date, and it does take time to go through it, and there's not necessarily an algorithm that we're using to go through it, and so I think those would be some of the differences, and $I$ don't know, Assane, if you have anything more to add on the economic side on that.

DR. DIAGNE: The only thing that $I$ would add is that Dr. Carter, at the Science Center, actually looked into that, whereby him, and other people working with him, went to a series of websites to look at essentially the price that they advertise for charter trips, and they collected those, but just, as mentioned, if the websites are not updated, that's one issue, and, also, you have no guarantee that the customer is actually going to pay what it is advertised on the website, and it may be that this is low season, and then folks show up and can get a discount, for example, and that sort of thing, and so the website data are a good indication to start from, when you don't have anything else, but it is not as precise as actually collecting the data.

CHAIRMAN BOGGS: Dr. Froeschke.
DR. JOHN FROESCHKE: One thing $I$ was thinking about is, when we were developing the original SEFHIER document, as part of that process, we had a technical subcommittee that met and developed a report, and there's a lot -- I looked at this week, and there's a lot of discussion, and information, about, more on a higher level, what's kind of information should be collected, and one of the ideas was that, if the information can't be validated, it probably doesn't necessarily need to come from this, because that was one of the main ideas, is to collect information that you could validate somewhere, so that you knew that it was accurate, and some of these other ones -- There was discussion about the economic data fields and things like that, and so, perhaps for the new for-hire AP or something, when that is brought together, we could revisit some of that document and some of the recommendations in there, which $I$ think are still highly relevant.

CHAIRMAN BOGGS: Thank you, Dr. Froeschke. Mr. Anson.
MR. ANSON: I don't want to interrupt any discussion for the
committee on next steps, but I wanted to go back to one of the slides from the presentation, Slide 7, and just -- Maybe Dr. Stephen could consider, on the FHS column, under MRIP, and the APAIS column -- I think they don't -- I think they're a little misleading, $I$ guess, as it's written, in my mind, because effort -- If you look down at the effort row, APAIS is the dockside portion of MRIP, and so it doesn't, by itself, give effort, but FHS does, and then, also, for landings, APAIS, by itself, doesn't give the landings, and it gives characterization of catch, and FHS does not, and so just if you can kind of relook at that, because $I$ think there could be some changes made there.

DR. STEPHEN: In particular with the landings, there was a reason that we kind of had observed, because there is what was observed from the person coming back, versus what was reported, and so this was trying to minimalize it, but, if we want to get into any more discussion, I will get S\&T involved, and we'll get a lot more information there.

CHAIRMAN BOGGS: Okay. Dr. Hollensead, remind me, and we made a motion, at this council, to move forward with a new document for charter/for-hire data collection, correct, but we have not yet reviewed, or discussed, and, Mr. Chair, I know we're at a break time, and this may not be the time, but the purpose and need, and so is that kind of the -- Well, not one, but I guess one of the council's next steps, is to review the purpose and need, or is that something that will come back from the IPT to us to review?

DR. HOLLENSEAD: Well, Madam Chair, I think it depends on how the council would like to steer some things. If the council is interested in looking through some purpose and need, and drafting some language, they could begin that here, certainly. Also, like I said, we're talking about appointing, and convening, an ad hoc group, and the council may be interested in that feedback, as they begin thinking about that, and so I would say, you know, council staff is ready to do either one of those things, depending on how you would like to move forward.

CHAIRMAN BOGGS: Mr. Gill.
MR. GILL: Thank you, Madam Chair, and so I believe looking at the purpose and need is the first step we need to do to set the direction, but also to give guidance to the ad hoc AP upcoming, so they understand better what our thoughts about the program coming up are, and so I think that's the very first thing we should do, to set that vision, if you will, for why we're doing all of this. Thank you.

## CHAIRMAN BOGGS: Dr. Froeschke.

DR. FROESCHKE: On that same line, the purpose and need in the original one -- We have that, and I looked at it, and, to me, looking at that one, the problems that were identified, and the goals in there are -- I mean, it's the same thing that they are now, but perhaps one way to jumpstart the conversation would be to pull up the original purpose and need in that document, and you could take a look at it and see if there were any things that you wanted to modify or update.

CHAIRMAN BOGGS: Dr. Stephen, can you bring up slide 2, please, and I am wary that we're going to, this afternoon, select an ad hoc advisory panel, and, I mean, we have set a charge for them, but I do agree with Mr. Gill that they need some direction, or at least something that the council is looking to do, and maybe they can provide some direction, and, I mean, it can work both ways, but I would certainly like to see, if at all possible, and I'm sure that we'll have Data Collection on the January agenda, but a purpose and need that we can maybe move forward with.

I mean, maybe we can kind of draft it at this meeting, and we may be able to come up with something that we're -- That we can adopt at this meeting, but, at the very least, I think, in January, we need to have a very clear and concise purpose and need, and the AP, the ad hoc, will have had a chance to meet, but, if we can come up with it at this meeting, and agree on it, I'm very much supportive of that as well. Mr. Gill.

MR. GILL: I agree, Madam Chair, and whether we can come to a final on that decision, $I$ don't know, but $I$ think we can give a -- It's kind of like choosing a preferred, and we're giving a sense of direction for that AP, that they know where we are at the moment, recognizing that, yes, in January, we may modify it some, and probably not substantially, but any advantage we can give to the AP, to give that sense of focus, I think is absolutely vital.

CHAIRMAN BOGGS: Okay. So maybe, at Full Council, we can have some language prepared that someone might bring to the table and discuss that would be available to give to the ad hoc AP moving forward, and, again, as Mr. Gill said, it's kind of like picking a preferred, and we have the ability to change our minds, as we so often do at this table, and so, with that, any more questions? Mr. Strelcheck.

MR. STRELCHECK: I like that we'll come back to this at Full

Council, but the way $I$ guess I'm thinking about this, and the direction to the AP, right, is $I$ think we all are in agreement, or general agreement, with the purpose of increasing accuracy and timeliness, right, and that was kind of originally the purpose.

We also, I think, would like input from this advisory body on the adequacy of the validation and reporting accountability measures, right, and then $I$ think the third component, which is something that's been overarching for a while, is the burden on reporting, right, and so getting input and feedback from that panel on the reporting requirements, the details of the logbook form, and I think having staff provide information specific to kind of how that data is used and is not used, the adequacy of the data that we collected previously, and some of the limitations, and that would really go a long way, $I$ think, in terms of informing us going forward, with regard to the specific details of the logbook reports themselves.

CHAIRMAN BOGGS: I want to direct this to you, Mr. Strelcheck and Dr. Stephen, and, in looking at the current purpose and need, and this is just floating some ideas, number one, do we need to -- If we want to continue, which I support economic data, but change that to just "economic data", or "social and economic data", and, number two, do we need to be very clear, in the purpose, something that has to do with validation? Mr. Strelcheck.

MR. STRELCHECK: I mean, I think you raise a good point, given the litigation about the term "socioeconomic", and that we would want to modify that to, at a minimum, "economic", and I need to remember if we're collecting social data as well.

To your second point, $I$ don't have an answer yet, but $I$ would agree that $I$ think we need to give some thought with regard to the validation and accountability mechanisms as part of the purpose and need.

CHAIRMAN BOGGS: Any other comments or questions from the committee? Mr. Diaz.

MR. DALE DIAZ: Thank you, Madam Chair. I'm not on your committee, but the burden of reporting is something that is -I've been thinking about it a lot, and I'm hoping, at the end of the day, that we come out with a SEFHIER lite, and when $I$ say "SEFHIER lite", I want us to try to focus on only getting data that we need, because I think, if we leave this too open-ended, then a lot of people is going to want data that potentially we
might need in the future, but we don't know if we need it, and so, I mean, that's where I'm at. I would like to see us focus on what we need, but I hate it to limit it too much before the ad hoc AP gets it, and I would like some input from that ad hoc AP, but, naturally, we need a lot of input from the agency, and our other scientists, about what's needed, and take care of that first, and so that's kind of where I'm at, and so thank you.

CHAIRMAN BOGGS: Captain Walker.
MR. WALKER: Thank you, Dale, and $I$ was kind of hoping that somebody besides me would say something like that. I don't know that I can write it out word-for-word, but, you know, what I'm hearing around the table is let's run the same thing again, and I disagree with that, and I think, perhaps, we could modify this purpose to keep landings, discards, and effort, and then, also, have discussion, within the AP, on socioeconomic data and let's just call it VMS, but, you know, the way the original is written here, "socioeconomic data" was written right in there as one of the goals, and that seems kind of where things started to go sideways, and so, to me, you know, catch and effort and discards, period, and also discuss socioeconomic.

You know, obviously there has to be some reporting, but I think they should explore all avenues of, you know, reporting, VMS, phone app, other options like that, and just something a little different than the original, to me, would be what $I$ would prefer.

CHAIRMAN BOGGS: Not to prolong this, Mr. Chair, and I will try to move this along, but so, I mean, without the validation component, I don't know where we're at, and I heard your arguments, Captain Walker, about the South Atlantic, and I agree. We had a permit for a brief period, but we let it go.

You know, is that the reason that there's low reporting? Again, I don't know the answer to that, but $I^{\prime} m$ going to pose this question, and $I$ don't expect an answer right now from the agency, but, currently, at least in the headboat survey, and it's been a while since I've looked at what the charter/for-hire was doing, but we have to report our coordinates of where we fished the majority of the trip.

Is that some type of an avenue for validation, because, of course, $I$ understand that you don't know that they fished or they didn't fish, and that's the sticking point, is did they actually fish, and they're just not reporting, and so that probably won't help, because, again, we're back to -- I
understood what Mara said, and I don't know, and I'm not sure how the commercial fleet does it, and I haven't thought to ask them this, but can you have the VMS unit that only pings every six hours, or -- I don't know, but I feel like -- I am very strong about this validation, because that's the least expensive way to validate, because you cannot have boots on the ground at all hundreds of these ports, waiting for a boat to come in, and, I mean, I even see it with the State of Alabama.

They're there maybe once or twice a week, and they can't be there all day every day to validate that a boat actually left, and so I'm probably the only one at this table that's really adamant about the validation, but $I$ really do find it to be a key component to get the end result that $I$ think the charter fleet wants, which is the ability to get longer seasons, more flexibility with their fishery, and $I$ know this is going to be an arguing point until the end, but I'm a proponent for some kind of validation, whether it's VMS, but there has to be some kind of validation, and so thank you. Any other comments? Mr. Strelcheck.

MR. STRELCHECK: Well, in response to that, and Ed's comments, and so $I$ really appreciate Ed's comment, right, and $I$ don't think the intent here is to say we're trying to just repurpose the existing program, or run it the same, with maybe some minor changes, right, and $I$ think this is a good conversation, and I liked him pointing out some key components of the previous program that the industry, stakeholders, had concerns with, and that would be good to, obviously, bring back to the AP.

I will say $I$ am probably even more strongly in favor of a strong validation program than you are, Susan, and, if we don't put in strong validation, it's not worth having this program, and it's not worth spending the money to run the program, because I don't think that we'll accomplish the purpose and need, right, and so, to me, we need to give a lot of thought to that, in light of the lawsuit and court decision, and, ultimately, see what we can do to reinvent this program, but what would be really beneficial, when we get into the AP discussion, and getting input from them, is what they liked and what they didn't like about the previous program, and why, as well as trying to answer some of the key questions that they might have about the utility, or lack of utility, of the data.

Dale's comments sat well with me as well, right, and so can we look at all of the variables and data that we collected and determine that there were certain things that maybe we don't need to collect, because they're unnecessary, and, if so, what
would those be, and what can we eliminate from the program, just to reduce the reporting burden?

CHAIRMAN BOGGS: To that, and I meant to comment to Dale's comment, and, you know, but we don't want to end up in a situation like we did with SEFHIER, where we had to come back and make all these modifications, and $I$ think we have a lot of lessons learned from SEFHIER, and are we going to get this one perfect? I think I saw someone who -- Somebody commented about, you know, we want to get it right, and I don't think we're going to get it right, but I think we'll be more right than maybe we were before, but knowing that we're going to have some challenges, moving forward, and so, if I don't have any more questions, or comments, from the committee, Mr. Chair, would you like to break at this time?

MR. ANSON: Yes, $I$ think we need a break, but let's make it a ten-minute break, and so we'll reconvene at 10:30 and start up again.
(Whereupon, a brief recess was taken.)
CHAIRMAN BOGGS: If I could call the Data Collection Committee back to order, and, Dr. Hollensead, if you could please take us through Agenda Item VI, SSC Discussions on MRIP-FES Pilot Study and Next Steps, and this should be fun.

## SSC DISCUSSIONS ON MRIP-FES PILOT STUDY AND NEXT STEPS

DR. HOLLENSEAD: Yes, ma'am, and so Dr. Luiz Barbieri, from the council's SSC, is going to present discussions of recent findings from MRIP's 2023 pilot study, looking into the Fishing Effort Survey, FES.

The findings of the 2023 pilot study, presented by Mr. Rob Andrews from the NOAA Office of Science and Technology, discovered the presence of telescoping bias in FES, and so what that means is the order of the questions, and regarding the frequency with which the respondent went fishing within the prescribed time period, results in an overestimation of overall fishing effort, and, thus, the landings.

This overestimation, generalized across regions and species, was estimated to approximately be 39 percent for the private vessel mode and 32 percent for the shore mode, and so, in addition, Dr. Barbieri will review the follow-up pilot study to be conducted in 2024 by the Office of Science and Technology, and the anticipated peer review process for that. Lastly, Dr. Barbieri
will summarize the sensitivity run for SEDAR 81 for Gulf Spanish mackerel, testing the effects of the results of the pilot study. This sensitivity is not intended to be used to modify catch advice at this time.

The committee should evaluate the information that's presented and make recommendations to the council, as appropriate, especially with the consideration of the committee agenda item following this one, and so that would be Agenda Item VII, Madam Chair.

CHAIRMAN BOGGS: All right. Thank you, Dr. Hollensead. Dr. Barbieri, are you on the line with us?

DR. LUIZ BARBIERI: Yes, Madam Chair. Good morning, and thank you. I am here and ready to go.

CHAIRMAN BOGGS: Well, please proceed, sir.
DR. BARBIERI: Thank you, ma'am. Well, first of all, I will start by apologizing to all of you for not being able to be there in-person. My plan was to be there this week, to experience the council meeting in-person and give my presentation, but this bad cold that has been going around caught up with me, and so I decided that it would be best for me not to be around and in a room full of people, when $I$ am coughing and sneezing, and so I'm going to be giving these presentations this week remotely, and so sorry about that.

As Dr. Hollensead's introduction pointed out, I am going to be presenting the results of this MRIP-FES pilot study, and mainly the SSC's discussions of the study results.

In actuality, this report encompasses two studies, and not just one, that focused on evaluating two potential sources of reporting error that could be causing bias in FES, and so the first study evaluated recall error that compared the FES results, which, as you know, are based on two-month waves, to those from experimental questionnaires that collected data for one-month waves, and so this is something that the MRIP program has been looking into, and there was a recommendation from a National Academies of Science study report that came out in 2017 that recommended that the survey change its Fishing Effort Survey frequency from two-month waves to one-month waves, and NMFS has been considering this as an option.

This first part of the study was focused on that, and then the second study evaluated a recall error that was related to the
order in which questions are presented, and so, in this case, they switched the questions on fishing activities in the previous two months with questions about fishing activity in the previous twelve months, and this makes a difference in the way that people perceive and understand the question, how this triggers their memory of those fishing trips and, therefore, impacts their ability to report accurately how many trips they actually completed. Those are the two pilot study results that I'm going to be focusing on in the discussion today.

Key points on the pilot study evaluating the one-month waves, this study actually compared the current FES design, and, again, that, as you know, is two-month waves, to two options for reporting fishing activity for just one month, but, first, they asked about fishing activity during the previous month, and so that was considering just fishing activity in that single month, and so, for example, for the month of July, how many times did you go fishing during that month, versus another option that was considered was asking about fishing activity during the previous two months individually, and so, in that case, if you're interested in fishing activity during the period of July and August, you would ask about their fishing activity in July and then their fishing activity in August, and so, again, they're interested in just one month, but you're presented a question asking for two months, with the report to be two months individually.

The single-month questionnaire resulted in consistently higher fishing effort estimates compared to the current FES design, while the two individual months questionnaire produced estimates that were similar to the current FES, and so, even though that second set of questions was focused on just one month at a time, because it involved two months, the results were similar to the catch with the regular two-month wave.

These results suggest that the respondents are more likely to overreport fishing activity when the reference period, and that's the period that you're interested in surveying about, is limited to a single month, meaning respondents tend to telescope earlier out-of-scope trips into the actual survey period, and so, again, the way that you ask the questions, and the order of the questions, matter in whether you provide the respondents with what's called an additional question, a bounding question, that helps them situate their memory in the right period and, therefore, report their fishing trips more accurately for the period of interest, or what's called a reference period.

This, of course, brings added complexity to the design of this
one-month wave FES survey, because we're going to need to account for that telescoping effect if we want to switch from two months to a one month, and so the study was helpful in pointing out these potential issues and suggesting that special care needs to be taken when designing a questionnaire switching from a two-month wave to a one-month wave, given the effect of that telescoping reporting.

Unfortunately, this study had limitations, and it was conducted only in four states, and only for half a year, and, you know, as a result, it had smaller sample sizes, when compared to the regular FES, and so, even though it was informative, it had limited scope, in terms of the data quantity and quality.

Now a key point on the second study, which deals with the question order change, and so changing the order of the questions, and, for example, asking people to report their fishing activities during the previous twelve months, before asking them to report fishing activity during the previous two months, this identified telescoping bias as well, which caused an overestimation of fishing effort and landings, and so just changing the order of those two questions impacted people's memory of their fishing trips, and it caused them to report with this telescoping bias, when, again, they were drawing, from memory, from periods outside of what the reference period, or the period of interest, is and reporting more fishing trips during that period that they were extrapolating to the period of interest.

Changing the order of the questions in this experimental questionnaire resulted in effort estimates that were generally lower than the current FES design, and so, if you ask people for their fishing activity first in the previous twelve months, instead of just the previous two months, that caused them to do what's called a bounding effect on the survey, and their memory was then better structured to remember what happened during the two previous months of fishing activity and not extrapolate from periods before.

When you change that, you actually cause lower estimates than the current FES design, which asks first a question of fishing activity in the previous two months and then moves on to fishing activity in the previous twelve months.

In general, the fishing effort estimates were 32 percent lower for shore mode and 39 percent lower in the private boat mode, but the results varied by state, by wave, and by fishing mode, and, again, this high variability was difficult to account for,
because of limitations on how this study was conducted, and it's just half a year, with smaller sizes that for $F E S$, and so the study estimates actually had lower precision than you would need to really have a full comparison with the current FES design.

Given the results of these two short-term pilot studies, NMFS will be conducting a more complete FES pilot study, which will actually take place, concurrently with the current FES design, over the entire year of 2024, and the full course of 2024, which, of course, will immediately increase sample size and provide longer duration, and also account for seasonal differences in fishing activity as well, that, before, when you were just doing a half-year study, it could not be fully evaluated, and so you have larger sample size, and greater statistical power, is what is planned for this next study, pilot study, being conducted in 2024.

The revised design includes both questionnaire changes and increasing the administration of the survey from every two months to monthly, and so now they're going to be able to evaluate the question order in this new study design, as well as the monthly versus two-month wave in FES concurrently, and that will help the study then evaluate the combined effect of both changes, changes in the question order as well as changes in the two-month wave to a one-month wave, and this will facilitate then the efficiency of the calibration process.

Now, keep in mind that this study will be conducted in 2024, and it will be in 2025 that the data analysis and evaluation of all the data and the results of that sampling, and then the report will have to be reviewed by a panel of experts, and so the expectation now is that the revised survey is expected to be completed no earlier than 2026, right, and so, whatever the benefits might be of this more complete result, I mean, this more complete study conducted in 2024 , it will not really become apparent until 2026, given the time to have full sampling, data analysis, and a review, and then proceed with a calibration process for implementation of the survey.

That's just something for you to keep in mind, because, of course, that will impact, as you know, our assessment and management process.

Madam Chair, I think I'm going to stop there, and I'm going to be moving on to talking about the results of the sensitivity run on SEDAR 81 that was done using the lower MRIP-FES estimates, that was suggested by this pilot study, but, because that's a little different than what you've been hearing, I'm going to
pause to see if you want me to address any questions that committee members may have. Madam Chair.

CHAIRMAN BOGGS: Yes, sir?
DR. BARBIERI: I am going to pause there, before I start on the discussion of the FES sensitivity run of SEDAR 81, to see whether committee members have any questions over this first part of the presentation.

CHAIRMAN BOGGS: Right, and so, Dr. Barbieri, I don't have any questions at this time, and so, if you would, go ahead and run us through the sensitivity run for the Spanish mackerel.

DR. BARBIERI: Excellent. Thank you. The Science Center actually conducted a sensitivity run of SEDAR 81 that was Gulf Spanish mackerel, to allow us to look into the potential impact of data changes in the MRIP-FES, right, and so that reduction, potential reduction, in the landings estimates by about 40 percent, and what would be the impact of that on the assessment results, right, the catch advice, and the stock status determination resulting from that assessment. I am going to just summarize those results for you now.

Before I go into that, let me first refresh your memory on the SEDAR 81 assessment. The SSC reviewed that assessment back in July, and I think that you looked at this back at your August meeting, and so a reminder that that stock was deemed to be not overfished and not undergoing overfishing, as of 2021 , which was the terminal year of the assessment. The stock status was healthy, but the biomass estimates were thought to be declining, and it's probably just a natural up and down cycle, the natural fluctuations that you would expect.

Then another point that $I$ thought was important to be aware of is that the Gulf of Mexico fishery for Spanish mackerel is largely recreational, and it's approximately a 90 percent component of that fishery is recreational, and so we would expect this stock to actually show potentially greater impacts, in terms of changes in the FES data, regarding assessment outcomes, or outputs.

The sensitivity run was using the same SEDAR 81 base model, and so the model is configured the same way, but using lower, decreased, private vessel and shore landings, right, according to the 2023 MRIP-FES pilot study, and so the private and shore catches and discards were actually multiplied by 0.6 , and so there was a 40 percent reduction in the total landings and
discards, and the assessment was rerun using the same model configuration that was used for the SEDAR 81 base run, and then the results, of course, were compared, as well as projections and estimates of stock status and catch advice that came out of the SSC.

Looking at some graphs comparing outputs from the base SEDAR 81 model, which is shown here in blue, the blue lines on these graphs, and the FES sensitivity model, which is in red, and the graph on the top right shows the trajectory of fishing mortality during the entire time series of the assessment run, and it's from the mid-1980s all the way to 2021, and you can say that, in terms of fishing mortality estimates, you really cannot detect a big difference between the two model runs, and they were basically the same, but, when you look at the two lower graphs, on the left, you have the stock biomass trajectory, again, from 1986 to 2021, on the left graph, but, on the right graph, you have the recruitment time series over the same time period.

In this case, although the trends are exactly the same, you can actually see that there was a scaling factor, right, there. The reduction in the FES landings caused the results, in terms of SSB and recruitment, to also be reduced by a fair amount, and so no changes in fishing mortality estimates, no detectable changes, or significant changes, but then a reduction in scaling of the biomass of the stock and the productivity, in terms of recruitment.

The main takeaways, or key points, of this sensitivity run result is it really shows a similarity in trends, and the estimates were fairly close to each other, but there was that scaling factor reduction in $S S B$ and recruitment that you saw in the graphs. No change in stock status was detected, and so, even if you run the assessment with lower landings, resulting from the lower fishing effort estimates, the Spanish mackerel stock remains not overfished and not undergoing overfishing, but the catch limit projections decrease by approximately 25 percent, and so let's look at that in more detail in the next slide, please.

I know that this is really busy, but let me draw your attention, right, and this is some tables comparing projections, with yield streams on the top table, and then constant catch on the bottom table, right, and so, if you look at the top table, you can see estimates of OFL here, right, that came out of SEDAR 81, and that OFL on the FES sensitivity, which was the reduced recreational fishing landings due to FES, compared to what came out of the assessment, and then the percent change in OFL, which
varies from about 36 percent to -- I mean, from about 23 percent to about 36 percent.

Then the two columns right there are the optimum yield, which changes also over time, from SEDAR 81, from the sensitivity run, and, again, you can see the percent change in OY as a result of the reduced landings. Again, the variability is similar to what it was for OFL, but then, when you look at the constant catch at the bottom, this is the constant catch that the SSC provided to you as management advice for Spanish mackerel, and, for the three-year or the five-year constant catch estimates, you end up with a reduction of about 25 percent in the estimate of $O Y$, right, and so it's about three-million pounds. For the three year estimate, you have about twelve-million pounds to about 9.6 million pounds, and so it's close to three-million pounds difference between the two, which the SSC thought was not irrelevant.

Then some comments on the results of this, and, first of all, given the proportion, the high proportion, of recreational landings and total landings for Spanish mackerel, of course, changes in recreational fishing landings are going to be more meaningful for those species, and the SSC pointed this out, and we need to be cautious when we're evaluating differences between different stocks, because, of course, for stock that are primarily driven by commercial fisheries, they're not going to be as severely impacted as some that have a higher proportion of recreational landings.

Fortunately, there was a minor impact, if at all, on the fishing mortality estimates that came out of the sensitivity run, and so that remained relatively constant, but there was a 25 percent change, a reduction, in the catch limit projections, which the SSC felt to be considerable, and so the trends were similar, but their magnitude can be impactful, when you're talking about three-million pounds, and discussions then focused on -- Because this was a generalized discussion, but what would be the potential mitigation of these situations for species where you have state data, state survey data, that can be used instead of the MRIP-FES-based survey.

In that case, this may help, you know, this process, by allowing the assessment to be conducted without being impacted by these changes in FES, and the SSC was also trying to have a broader understanding of what would be all the potential impacts that could be had and how do we account for those impacts in the way that we assess uncertainty in our assessments and the way that we provide management advice.

As you know, the $S S C$ is charged in providing that ABC recommendation, with a reduction from OFL to ABC that is scaled by the uncertainty in the assessment, and our interpretation of these results of the FES pilot study is that we know that things may not be completely defined yet, because of the short-term pilot studies, but we do know that we have higher uncertainty in the recreational landings. There is more here that we don't know than what we do know, and we still need to kind of wrap our brains around that, in terms of how do we account for that uncertainty, in terms of assessment and management advice.

We asked the Science Center for some discussion on these points, and the center told us that they are developing a plan themselves, looking into this in more detail, and this has been fairly recent, and it hasn't been fully evaluated, but they're going to get back with us with a more in-depth discussion of the potential impacts of this FES landing -- I mean, effort and landings scaling down on our assessments and management advice. That, Madam Chair, completes my presentation, and I will be glad to answer any questions, if there are questions from the committee.

CHAIRMAN BOGGS: I don't see anyone with their hand up, Dr. Barbieri, but I think, if you are able to stay on the line, when we get into this conversation with Dr. Froeschke, there may be some questions that may come to light that you can help us with, if you're willing to hold on the line.

DR. BARBIERI: Absolutely, Madam Chair. I will be here.
CHAIRMAN BOGGS: Okay. Dr. Froeschke.

## DISCUSSION OF MRIP-FES INVENTORY FOR THE GULF OF MEXICO

DR. FROESCHKE: All right. Good morning. At the last council meeting, there was a recommendation that we develop some analyses, or at least thoughts, about the relative amounts of exposure of various activities the council is working on, or perhaps planning to be working on, and to inform what, if anything, we might do going forward.

I worked with the council staff, the Science Center, and the Regional Office a little bit, and we tried to put this together. This is draft, more of a thought process, and there is no recommendations, per se, but some things to think about.

This is the motion, and, essentially, the key points of this
that I wanted to focus on are the actions in the foreseeable future, and so, to that end, we did not go back and consider what the effects, if any, on actions that we've already completed, and that's not to say that there are none, but we didn't do that.

The other part of this is we looked at both ongoing management actions and things that are on the SEDAR schedule, and so that was sort of the realm of things that we're looking at.

The assumptions that we made, of which there are -- Depending on what you assume and what you get to, but, based on the previous report, it's that the changes to the FES -- It's a scaling issue only, and so it's not going to have cascading effects on if the stock assessment -- Or we think that particular stock is overfished now, making a modification to this is not going to change that perception, and so that's one assumption.

The other assumption is, if we were to undergo a management action that would reconsider allocation for a particular stock, that it would be a mechanism similar to what we've done in the past, i.e., looking at historical landings and that kind of thing. If you were to do something else, it may differ.

Another assumption is that stocks that are Gulf-wide -- For example, Spanish mackerel might have different outcomes, or exposure, than something that's more localized, like a Floridaonly species, and then the final kind of thing is the stocks that are offshore, for example red grouper or something, and they don't really have a strong shore component, and they may have less exposure, because so much of the changes are contained within that mode.

The next slide here is just $I$ tried to put together a rubric, if you will, of four different levels of exposure, and none of these are, again, tied to if it's Level A that you must do this or that, and it's not that, but it's just trying to bin them, and I'm not confident that these bins encapsulate every possible scenario or things like that, but $I$ think it was a useful exercise, at least for us to think about.

These are what we call the tiers, ranging from Tier 1 being the least effects from potential changes, and Tier 4 being the most, and I will just kind of go over them a little bit, but Tier 1 is essentially considering that this likely doesn't have any direct implications on stocks that were classified as Tier 1.

Tier 2 is some exposure, and we called it low, and perhaps
there's something that could be done, or perhaps it's a stock that doesn't have a lot of recreational, or any recreational, harvest. Medium is kind of moving down that threshold, and stocks likely must use FES, or at least we think so, and perhaps not as much as some of the other ones, or they don't have sector allocations, which will come in in Tier 4, and they're stocks that are not under rebuilding programs, and they're probably less impacted, and stocks that we're not anticipating additional management changes.

Then Tier 4 is where sort of the things that we all might think about that keep us up at night, and so these are the stocks that we think that we're going to work on that are going to use FES, and these are the stocks, perhaps, that have a lot of inshore landings. They have sector allocations, and they're stocks with complex management, and they may be under rebuilding plans, and they may have mixed use, and so these are the factors that, at least in our discussions, seemed to contribute to the stocks that would likely be most problematic to figure out what to do, and then that asterisk, again, is that, the more shore mode landings you have -- At least our thinking is that's likely to be more problematic.

This is what we came up with, and we might have to shrink this down or something as we go along, and so we tried to just come up with a flow diagram, and $I$ had a number of other staff and things that helped me simplify this, because it started out more complicated than I hoped was necessary, and so what we tried to do is just come up with some sort of flow diagram, such that, whatever exposure we might rate a particular activity, and it wasn't subjective so much, and it wasn't just, oh, I think that's a lot, and we tried to figure out why.

Kind of the first decision tree node we went to is does the action affect the annual catch limits and require the use of fisheries data, and so what $I$ did, from this, is, you know, meaning, once we have a particular node -- I took a look at all the actions on our actions schedule, and all the actions on the SEDAR schedule that we have for the next couple of years, and I tried to start looking at those and kind of running it through this.

Tier 1 here is, it doesn't affect the annual catch limits and require the use of the recreational fisheries data, $I$ would classify that as a no, as no exposure, and I just put a couple here, and this is by no means exhaustive, but just to kind of see the kinds of actions that might filter out, and so, for example, the shrimp research track stock assessment is not going
to use recreational fisheries landings data, and the same as the coral amendment, for example, that we might start working on next year.

Those are a couple, and there are several other actions, and there's a spreadsheet that I have next, and we can look at that, that fall into this, more than I anticipated when I started looking, and so I think that's a bit of good news.

If you switch to the yes or no here, that would get you down to the next question of is MRIP-FES data required for use, and what I mean by that is there are some stocks that, and, for example, gag, that we just converted to SRFS, and there are other stocks that we've contemplated on the SEDAR schedule, like mutton snapper, that we might use SRFS, and you can see that there might be other stocks, or situations, where a different currency, that we don't know about the issues that we just kind of are learning about through MRIP-FES, and so we might be able to work around that.

For some of those stocks, or assessments and things, if you answer no, and I put here the mutton snapper assessment, which we may be able to do in SRFS, or yellowedge grouper, which is a stock with extremely low recreational landings, and it's almost all a commercial fishery, because it's a deepwater stock, and so I put those two as examples in the no category, and so a low exposure. Again, low exposure doesn't -- At least the way we've discussed it, it doesn't recommend a particular action or not, and it's just kind of a way to rank these.

If you go to the yes, that the MRIP is required for use, that gets you down to the next question of does it need to consider allocation. You know, thinking about allocation, when you scale the landings up or down, you often need to reconsider what your landings are, and these are informed by recreational landings, and we've done this a number of times for MRIP-FES, and so, if you were to change it again, you could see how that is, and, if you recall, those are difficult amendments and things to work through.

The inverse of that is, if you don't have to do that part, it's a less -- It's a simpler process, perhaps, if you're just changing annual catch limits and things, and so you don't have to figure out the allocation component, and so, for example, the Spanish mackerel stock assessment, that we just talked about, does require the first node of ACLs, and it does affect those, and it does affect recreational landings. There's not an alternative currency for use, but it does not affect sector
allocations, and we do not have that defined for Spanish mackerel, and so $I$ would define that as a medium exposure.

The same kind of flow chart for the lane snapper, if we update those, and so these are the Gulf-wide stocks, and then the last portion here is this need to consider allocation, and so, if it's a yes, and these are the amendments that, when $I$ first learned of this pilot study, these are the kinds of things that came into my head, and so, oh my god, what are we going to do, and so there is several in here, and not as many as $I$ thought perhaps, but, as far as what we could do, you know, it's going to take some more thought.

For example, the shallow-water grouper amendment, and so, if you recall, that's a stock, and we have a stock assessment for scamp, and that was a stock assessment that's going to require changes in the annual catch limits, and that's managed through the shallow-water grouper complex, and it's going to likely require some changes to that. Black grouper is part of that assessment, and, because it's in the IFQ, there's some allocation kinds of situations in there, and so there are a number of different issues in there that we'll kind of have to think through.

SEDAR 74, that's the ongoing research track assessment, and we're scheduled to complete that research track assessment in December of this year, in a workshop, and that uses MRIP-FES data, and, how we might translate that into the operational assessment, at some point we're going to have to figure out that, and I don't know what the answer is.

Some of the other actions that we've talked about working on are, for example, the state management of greater amberjack, or the sector separation. Those kinds of issues, when we've talked about those for other stocks in the past, allocations and things are just baked into those, and so, until we know more about what we might do about the data and an allocation -- It's a situation where, if you did it in FES now, and you got a pilot study in a year-and-a-half, and it said, oh, it's something quite different, we might be going back and forth.

I don't know what the answer is, but I can see where that would be quite difficult, and then yellowtail snapper, which $I$ think we're going to talk about, and this is a stock that we have a stock assessment, and the results were that the stock is healthy, and there were OFL and $A B C$ recommendations provided by the SSC that are lower than what are currently on the books. This is a jointly-managed stock with the South Atlantic, and
there is a jurisdictional allocation that would be affected, and so the way that the landings have typically worked is the South Atlantic is mostly recreational landings, and the Gulf is mostly commercial, and so there would be some jostling of catch, perhaps, there, based on FES, and less so maybe if you were to use some other currency or something.

There is those kind of issues, and the South Atlantic has sector allocations. There aren't any other management actions in there, but some of this is fairly complex, about what it might do, and so that's the flow chart.

In this next slide, I have some options to at least think about, and this is where, you know, you guys come in, you know, what to do next, and so $I$ just, to facilitate a discussion, have a couple of options for some of these that have a higher exposure.

One is you could push back the ones that we don't know what to do with, and the pros of that, for example, is, in particularly the allocation, you could delay some of those issues until you had more certainty in the recreational data that could inform the discussion. For some stocks, that may not work, if you have a rebuilding plan or something like that, and we may be waiting some time before these data are integrated into the pilot study and they've been reviewed and are ready for management, and so there could be some delay there.

Option 2 would be we would continue working on the stock assessment and the actions, and that would allow us to continue to try to do the work that we're required to do as best we can, and the FES data we don't think affects stock status, again, and we think that's a scaling issue. Some of the cons are these allocation issues, when you rescale the landings, it's going to make that very difficult, just to know if you're working with the right set of data.

If we were to reallocate, based on the FES data we have in hand, we may have to redo it when the revised data come out, if they're significantly different, and one of these is working with the data. The pilot study is out there, and the stakeholders know that there's ongoing work, and there may be some distrust among the stakeholders if we don't balance how we discuss this, if we're using data that may have some known shortcomings that hasn't fully worked through the process yet.

That was just sort of a list of things that $I$ came up with, but I was hoping -- You know, if we want to stop here and have questions, or discussions, about these, and $I$ do have the
spreadsheet, if you wanted to look through that on particular actions, and, I mean, it's not -- We could do that, and so I will defer to the committee on how you guys want to do that.

CHAIRMAN BOGGS: Dr. Sweetman.
DR. SWEETMAN: Thank you for the presentation, Dr. Froeschke, and you and staff putting this together $I$ think was really informative, quite frankly, and so thank you for taking the time to do that. I have a couple of questions here, and so let's focus on this slide here.

We have two options, potentially, on the table, and I'm wondering if -- You've kind of alluded to it, but is there a potential third option in here for using alternative state survey data, or something along those lines, to continue moving forward with some of this stuff, as opposed to kind of what's strictly within these two options there?

DR. FROESCHKE: The options weren't exhaustive, and so I just wanted to facilitate a discussion, and so that's certainly viable, in my view.

CHAIRMAN BOGGS: Dr. Sweetman.
DR. SWEETMAN: Thank you, and then a quick follow-up. Bernie, can you go back to that decision tree slide, and so, at the bottom, in the most exposure, and so a question for you, Dr. Froeschke, and so we've got yellowtail on there, and that certainly seems like a potential candidate where we could have some of these alternative surveys that could be looking at this, as opposed to FES, and so I'm just wondering, from your perspective, if something like that was done, using an alternative state survey, would that lower, potentially, the exposure level, maybe lower it into a separate tier, and I'm curious of your thoughts.

DR. FROESCHKE: My interpretation is, if we were to use SRFS for that, it would put it in a Tier 2, based on the flow chart. I had that discussion, and we kind of talked about it as staff, but $I$ was trying to avoid overcomplicating it based on assumptions of what might be done.

CHAIRMAN BOGGS: So I -- When we did gag grouper in SRFS, it was my understanding that the data was fairly similar to FES, and so that raises the concern, to me, if FES was 40 percent greater than what's expected, and SRFS is following along FES -- I mean

DR. FROESCHKE: The CHTS is what was similar to the SRFS. The FES is quite different.

CHAIRMAN BOGGS: I couldn't remember, and I knew there were some similarities, and so $I$ hope that you understand my question, because I certainly don't want to just continue on, but $I$ will express my concern again, as $I$ did when we did gag grouper, and I don't want the -- If this is going to become a state-reliant, state-dependent body, then what is the Gulf Council doing? I have reservations, and concerns, about -- Again, I raise Alabama, and, you know, we're the red snapper capital of the world, and so that does that mean we now guide the ship on red snapper? I'm just very concerned of what we're doing here.

I understand that we can't stop the process, but $I$ am just very concerned, and I believe the Reef Fish AP even passed a motion, and, you know, especially with allocations, and not to do anything until we resolve FES, but this is 2026 that we're talking about, and $I$ then also have a question to the agency about that, because I remember, going back to SEFHIER, we have to run it side-by-side for five years before we start using the data, but now you're saying we're only going to do this for two years, and so, again, what's the right answer here, but $I$ just wanted to express my concerns. Any other questions, or comments, from the committee? Dr. Sweetman.

DR. SWEETMAN: To your point, Madam Chair, from my perspective, it's not really about the council relying on various states, or anything along those lines, and it's using the best data that we have that's available to us, and, if there's a data source that potential mitigates some of the massive issues that we've been dealing with around the council, relative to allocation, and now a further level of uncertainty on top of that, I think it's worthwhile for the council to explore, and $I$ don't think that's the council relying on individual states to do that, but it's just utilizing the best data that we have available to us.

CHAIRMAN BOGGS: Mr. Strelcheck and then Captain Walker. Captain Walker.

MR. WALKER: Thank you. I was just going to agree with C.J. about that. I mean, if you tell your constituency, if you will, that the system we've been using is flawed, and you have another option that is somewhat agreed upon to be better, I think you owe it to them to use the one that we call better, and you know what people are saying about FES right now, and so $I$ would be in support of, you know, using states, where states are applicable.

CHAIRMAN BOGGS: Mr. Strelcheck.
MR. STRELCHECK: I agree with C.J.'s comments as well, and I do want to say that there is some risk of exposure for yellowtail, and right now mutton snapper, and they're kind of embarking on the calibration, and potential inclusion of SRFS, but we haven't used SRFS on the east coast of Florida, right, and they implemented that several years later, right, and so there's some unknowns there, and so I just wanted you to keep that in mind.

I think the other component here is there's -- You know, certainly $I$ think perception, or maybe even agreement, that the state surveys are better, right, and "better" is a very relative term, and based on your perception of what you consider better, in terms of regulations, or management, but incorporation of the state surveys does generally reduce your yield levels, right, because they're estimating lower landings, or catch, right, and so what it does provide though is more timely information, and potentially better ways to manage the fishery, kind of more real-time or in-season, and so $I$ just wanted to note that, in terms of some of the nuances, and differences, here, and I think we need to be careful, and thoughtful, about the risk of exposure, because some of these things -- We'll still have other risk, if we change course and try to focus on moving away from FES.

CHAIRMAN BOGGS: Dr. Simmons.
EXECUTIVE DIRECTOR SIMMONS: Thank you, Madam Chair, and so, when we were putting this together, $I$ mean, $I$ think the big struggle is the action plan piece of this, and, you know, what is our action plan right now, in the near-term and long-term, because it is very difficult. I know the South Atlantic Council had several motions that they came up with, during their September meeting, on how they were going to handle these things, and $I$ think we took this approach first, and $I$ believe they came in, at the SEDAR Steering Committee, and made some changes to their schedule, based on their discussions they had.

Back to the whole calibration to the state surveys, and so Florida is still running MRIP, right, and so they have a supplemental survey, and so they have to go through a calibration process, like they did for gag with S\&T, to calibrate their supplemental survey to the MRIP-FES. If that ratio changes in the future, as we get more information, you are correct that, in 2026, we may have to come back and relook at that ratio, but $I$ think the idea is that we'll be much closer,
if you think about mutton snapper and yellowtail snapper, nearterm with that supplemental survey, if we can get that calibration done now, until we have the results of the pilot in.

I see what you're saying, and you can't really decouple those, because you have those three eastern states that are still using MRIP, and so that is a process that Florida is working on with FWC. They've done it for gag, and they're looking at it for mutton snapper, and I think now we've asked for them to do it for yellowtail snapper, and so you are correct with your statement on that earlier.

CHAIRMAN BOGGS: So, Dr. Froeschke, do we want to look at your exposure analysis table of the action guide, and just look at a couple of examples, or maybe not, and do we need to rely on the council staff? I mean, we have the rankings here, but, based on all of this with FES, do we need to relook at the rankings, or has that already been done? I mean, what do we do with this action guide now, moving forward?

DR. FROESCHKE: What $I$ was thinking is we would pull it up, and you could look at the number -- There's a lot of number ones on there, and so, essentially, those actions, we could continue unabated, but there are the other ones, and you could look at these, and, again, you know, these were numbers that I assigned, based on the spreadsheet, and so, if there's a discrepancy, and you think $I$ have something rated as a two, and you think it should be a three or a four or a one or something, I think $I$ would like that feedback.

The ones with a three, or, in particular, a level four, I just kind of wanted to raise awareness that, from a council staff perspective, that we think there are going to be some challenges, and so we either need to figure out what we're going to do, or we're going to be spinning our wheels a bit, and so that's kind of what $I$ was hoping. If there are ways to work through those challenges on the ones that we have flagged as number four, it would be great to get that feedback, so we could know what to do.

CHAIRMAN BOGGS: Dr. Walter.
DR. WALTER: Madam Chair, thanks. John, thanks for taking this on and working with staff to do this, and $I$ think it is the first step in the triage here, and then the challenges are going to be what do we do for those most exposure stocks, and the path forward for them, when sort of everything is wrapped up in FES, and so I think that's where it will be good, I think, to
consider what that path forward is.
Like the South Atlantic Council has delayed a couple of assessments, to buy some time for incorporating that, that's an option, but, also, as Luiz alluded to, the center is going to be working on, together with SERO and council staff, some options for some other approaches that could be used in some situations, like a percentage change approach, and I think we'll try to work that through the SSC, so that everyone is clear on what those options are for these more challenging assessment and management stocks. Thanks.

CHAIRMAN BOGGS: So, Mr. Chair, I know we're bumping up against time, and Mara has her hand up, and she may be answering the question that I'm about to ask, and then I think, if okay, and I've already talked to Dave, we'll move his to Full Council, and maybe we look at the spreadsheet at Full Council, and is that okay?

MR. ANSON: Yes, if that's what you would like, and that sounds good.

CHAIRMAN BOGGS: Ms. Levy.
MS. LEVY: Thank you. Just a comment that I see even two groups in Tier 4, and so I see the groups where you have SSC recommendations on ABCs and OFLs that need to be addressed, because $I$ think both of those shallow-water grouper and yellowtail decreased, right, and maybe I'm wrong about shallowwater grouper, and so we have -- Two of those actions have SSC recommendations that need some type of action.

Two of them are just thoughts for future actions that you don't really have -- I mean, obviously, the stock assessment is ongoing, but the state management of greater amberjack -- I mean, there's nothing pushing that, but, to me, the two that require the real attention are the ones where we have $A B C$ recommendations from the SSC.

CHAIRMAN BOGGS: So my question that I was going to ask you, Ms. Levy, is so what happens if make decisions going forward, albeit maybe not allocation decisions, but just the scenario that we just did with Spanish mackerel, that it looks like it should be decreased now by 25 percent, and $I$ know there was a long discussion, at the SSC meeting, about the vermilion snapper, and so what kind of precedent do we set? I mean, we've reallocated red grouper, which now we've got -- I mean, are we setting ourselves up for lawsuit after lawsuit?

MS. LEVY: So I want to reiterate that we don't have anything that says that something should be 25 percent less. We have pilot studies, two of them, and one which indicates that a certain change increases estimates, and one that indicates that another change decreases estimates, and we have no idea what's going to happen when we put those two together and run the full pilot study, and so, to me, the statement that we have -- It's not correct.

We have the best scientific information that we have available before us, which is FES, or perhaps it's the state survey for some stocks, and you can act on that, and you move forward. To say that you're going to wait until sometime after 2026, when we don't even know what the results in 2026 are going to tell us, that, to me, is problematic.

CHAIRMAN BOGGS: Thank you, Ms. Levy. Well, with that, I think we will adjourn the Data Collection Committee.
(Whereupon, the meeting adjourned on October 23, 2023.)

