

1 GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

2
3 SHRIMP MANAGEMENT COMMITTEE

4
5 Opal Key Resort & Marina and Virtual Key West, Florida

6
7 June 21, 2021

8
9 **VOTING MEMBERS**

10 Leann Bosarge.....Mississippi
11 Kevin Anson (designee for Scott Bannon).....Alabama
12 Patrick Banks.....Louisiana
13 Dale Diaz.....Mississippi
14 Dave Donaldson.....GSMFC
15 Robin Riechers.....Texas
16 John Sanchez.....Florida
17 Andy Strelcheck.....NMFS
18 Ed Swindell.....Louisiana

19
20 **NON-VOTING MEMBERS**

21 Susan Boggs.....Alabama
22 Jonathan Dugas.....Louisiana
23 Phil Dyskow.....Florida
24 Tom Frazer.....Florida
25 Martha Guyas (designee for Jessica McCawley).....Florida
26 Bob Shipp.....Alabama
27 Joe Spraggins.....Mississippi
28 Greg Stunz.....Texas
29 Troy Williamson.....Texas

30
31 **STAFF**

32 Assane Diagne.....Economist
33 Matt Freeman.....Economist
34 John Froeschke.....Deputy Director
35 Beth Hager.....Administrative Officer
36 Lisa Hollensead.....Fishery Biologist
37 Ava Lasseter.....Anthropologist
38 Mary Levy.....NOAA General Counsel
39 Jessica Matos.....Document Editor & Administrative Assistant
40 Natasha Mendez-Ferrer.....Fishery Biologist
41 Emily Muehlstein.....Public Information Officer
42 Kathy Pereira.....Meeting Planning - Travel Coordinator
43 Ryan Rindone.....Lead Fishery Biologist/SEDAR Liaison
44 Bernadine Roy.....Office Manager
45 Carrie Simmons.....Executive Director
46 Carly Somerset.....Fisheries Outreach Specialist

47
48 **OTHER PARTICIPANTS**

49 Chester Brewer.....SAFMC

1 Dave Gloeckner.....NMFS
2 Peter Hood.....NMFS
3 Jack McGovern.....NMFS
4 Clay Porch.....SEFSC
5 Nathan Putnam.....LGL, TX

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PAGE 13: Motion to modify the purpose of the document to read:
The purpose of this action is to transition from the expired 3G
cellular electronic logbook program to a system that would
maintain the council's and NMFS's scientific ability to estimate
and monitor fishing effort in the Gulf of Mexico shrimp fishery
while minimizing the economic burden on the industry to the
maximum extent practicable. The motion carried on page 17.

PAGE 20: Motion in Action 1 to revise Alternative 2 to read:
Alternative 2. Modify the method to collect vessel position
data. If selected, the owner or operator of a shrimp vessel
with a valid or renewable moratorium permit would be required to
install an approved vessel monitoring system (VMS) that archives
vessel position and automatically cellularly transmits that data
to the NMFS. The motion carried on page 22.

PAGE 31: Motion in Action 1 to add an Alternative 3:
Alternative 3. Modify the method to collect vessel position
data. If selected, the owner or operator of a shrimp vessel
with a valid or renewable moratorium permit would be required to
install an approved electronic logbook that archives vessel
position and automatically cellularly transmits that data to the
NMFS. The motion carried on page 32.

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1 The Shrimp Management Committee of the Gulf of Mexico Fishery
2 Management Council on Monday afternoon, June 21, 2021, and was
3 called to order by Chairman Leann Bosarge.

4
5 **ADOPTION OF AGENDA**
6 **APPROVAL OF MINUTES**
7 **ACTION GUIDE AND NEXT STEPS**
8

9 **CHAIRMAN LEANN BOSARGE:** I would like to call the Shrimp
10 Management Committee to order. Just to refresh the council's
11 memory, the members are myself as Chair, Mr. Banks as Vice
12 Chair, Mr. Anson, Mr. Diaz, Mr. Donaldson, Mr. Riechers, Mr.
13 Sanchez, Mr. Strelcheck, and Mr. Swindell.

14
15 The agenda can be found under Tab D, Number 1. Were there any
16 changes or additions to the agenda that was in our briefing book
17 that anyone wanted to make? All right. There was one item that
18 I was just going to mention under Other Business, and that was
19 an Executive Order that came out, and I thought I would ask a
20 quick question about that, if we have time. If not, we will
21 punt it to Full Council. With that one addition, if no one has
22 any objections, we will adopt the agenda as amended. Seeing no
23 objections, the agenda is adopted.

24
25 The April 2021 minutes, from our last committee meeting, can be
26 found under Tab D, Number 2. Were there any edits or revisions
27 to those minutes that anyone wanted to make? I don't see any
28 hands or hear anything. Therefore, we will assume that the
29 minutes are approved and adopted as they were presented in the
30 briefing book.

31
32 For those of you out there on the webinar, and I think we have
33 three people now on the webinar, three council members. Please,
34 if you raise your hand, and I don't see you, and I don't call on
35 you, stop me. Just shout out. Tom is pretty good at navigating
36 this, but sometimes I get a little deep in thought, and I might
37 miss somebody, and so please stop me, or, Dr. Freeman, you can
38 stop me, too.

39
40 The Action Guide and Next Steps is found under Tab D, Number 3,
41 and, Dr. Freeman, did you want to just go agenda-item-by-agenda-
42 item and brief us as we come to it? All right. That sounds
43 good.

44
45 Then we'll dive right into Agenda Item Number IV, which is the
46 Update on Effort Data Collection for 2021, and I think Dr.
47 Freeman will give us the background on that, and then Dr.
48 Gloeckner will take us through this presentation.

1
2 **UPDATE ON EFFORT DATA COLLECTION FOR 2021**
3

4 **DR. MATT FREEMAN:** Thank you. For this agenda item, the
5 committee will be presented with an update on retrieval of data
6 from cELB units in use aboard federally-permitted Gulf shrimp
7 vessels since 3G transmission was discontinued back in December
8 of 2020.

9
10 The committee should consider the presentation and ask
11 questions. This information does not require any formal
12 committee action, and so, if Dr. Gloeckner is ready, I will let
13 him present at this point.
14

15 **DR. DAVE GLOECKNER:** Yes, I'm ready. I'm Dave Gloeckner, and
16 I'm the Fisheries Statistics Division Director at the Southeast
17 Fisheries Science Center, and so this will just be an update on
18 the shrimp interim data collection process.
19

20 If we go through a brief review of the issue on the second
21 slide, the cELB units ceased transmitting to NMFS on December
22 31, but, before that, on December 7, NESDIS, and they were the
23 ones actually receiving the data from the cELBs, they stopped
24 receiving that data on December 7, because they shut the server
25 down that was doing the receiving.
26

27 There was a security issue, and they wanted to shut it down, and
28 so, at this point, the cELB units are still collecting data, but
29 they're just not transmitting it anywhere. The plan for 2021 is
30 for the shrimp fishery to continue to use those units, and the
31 data will be manually obtained by the Center on the SD cards in
32 those units.
33

34 Interim steps that we proposed was that, by May, we would
35 develop instructions for fishermen to remove the old SD cards
36 and install the new SD cards, and so that was completed on May
37 17, and we also developed a mailer for sending out new cards for
38 fishermen, with a return address mailer for the old card to go
39 to the Galveston Lab, and that was also completed on May 17.
40

41 Then the Gulf States Commission will be developing a table on
42 their Oracle server to load the data from the SD cards and
43 developing a scanning process to isolate any virus-infected
44 cards. That was completed on February 15 by the Gulf States
45 Commission.
46

47 NMFS IT staff will work with the Gulf States developers to
48 create the process for the NMFS staff to access the table at the

1 Gulf States Commission and pull that data over to a NMFS server,
2 and, at that point, they'll run the conversion code to create
3 usable data and do some QC, and so we are testing that process
4 now.

5
6 We also wanted to send postcards explaining to shrimpers that
7 they should keep the unit powered up, and we will send
8 instructions on sending in the SD cards from the cELBs, and that
9 was done on April 15. We were also to send a letter, by mid-
10 May, explaining the process to fishermen, copying the council,
11 copying SSA, and any other groups that we identify, and that was
12 actually sent out June 1, and so we were a couple of weeks
13 behind.

14
15 We were also to work with SERO to publish this in a Fisheries
16 Bulletin, and that was sent to SERO on June 1, and that was
17 published on the 4th. We also sent the chip return packages by
18 mid-May, and there were 493 packages sent on June 1, and so we
19 are well on our way to all of the fishermen having the resources
20 to send those chips back into us. NMFS will forward the SD
21 cards from the fishermen to the Gulf States Commission to load
22 to their data tables, once we start receiving the --

23
24 **DR. FREEMAN:** Dave, can you pause for just a second? We're
25 having a technical issue on our side, getting the slides to
26 advance properly. Just one moment.

27
28 **DR. GLOECKNER:** Sure. No problem.

29
30 **DR. FREEMAN:** Dave, which slide are you on currently? Is it 5?

31
32 **DR. GLOECKNER:** 5, but maybe we missed 4, and I was looking at
33 my own copy.

34
35 **DR. FREEMAN:** Okay. Which slide would you like for us to be on
36 currently?

37
38 **DR. GLOECKNER:** We can go with the one that's currently
39 displayed, Slide 4.

40
41 **DR. FREEMAN:** Okay. Perfect. Thank you.

42
43 **DR. GLOECKNER:** I can go back over that, if people feel that I
44 need to, or I can go on to the next slide, if anyone has a
45 preference.

46
47 **DR. FREEMAN:** Dave, if you would like to proceed to the next
48 slide, I think everyone is okay.

1
2 **DR. GLOECKNER:** They're okay with that? Okay. Very good then.
3 All right, and so this is the last slide. After May, we will
4 forward the SD cards, once we start getting them from fishermen
5 to the Gulf States Commission, so they can load it to the data
6 tables.

7
8 After review of the data, we will identify bad units and make
9 the decision to replace or not by the end of June, and we
10 actually started replacing those antennas that we know are bad.
11 We went out 116 on June 7, and so, once we start getting some
12 data, we'll make the call on this, and I think that's what we're
13 going to do, is actually start replacing units, if we find that
14 they're bad. I think it's going to take too long to work
15 through the process of replacing those units with a new system
16 to forego replacing the ones that are existing that we find that
17 are bad, and so we'll go ahead and replace those bad units.

18
19 Lastly, the Gulf States Commission will return batches of the
20 used chips to Galveston Lab for storage, because those are
21 considered federal documents, and so the process can be repeated
22 in the fall, as the Gulf Council modifies the electronic data
23 collection program to replace the cELBs. I think we can
24 probably do this a couple of times, if it takes that long. Any
25 questions?

26
27 **CHAIRMAN BOSARGE:** Any questions from the committee, or the
28 council in general? All right. I don't have a question, Dave,
29 but I was just going to offer a little bit of feedback. First,
30 I think that the Science Center did an excellent job really
31 getting on top of this and getting the mailer out with the
32 postcard to the fishermen, to let them know what's going on, and
33 then being able to turn around and start to mail us out some
34 chips by June 1, and I really appreciate that.

35
36 If staff would pull up Tab D, Number 4(b), which is the last
37 mailer that you all sent us, Dave, from the Science Center,
38 giving us kind of the instructions on how to take that chip out
39 and put the new chip in, and I just wanted to make one
40 suggestion for the next time that you do this.

41
42 If you notice, if staff will scroll down just a little bit,
43 there is three pictures, and the picture on the bottom-right-
44 hand side, where it says "SD card" under it, and so all those
45 little round things right there are blinking lights, or lights,
46 that will come on on the unit, and, because we've had an issue
47 on one of our boats with these units before, and it not working
48 right, I know that those lights have almost like a Morse code

1 thing, to let you know if it's working correctly, and, if it's
2 not, what's not working correctly.

3
4 Because the fishermen may actually have to detach that wire for
5 the GPS antenna and power and things like that, to get this box
6 to a point where they can get that chip out, I think it would be
7 helpful, at the end of this little mailer, and the last thing
8 you tell them is to, you know, re-plug the power cord and power
9 the unit up again, but we might want to follow that up with how
10 do you know if the unit is powered up correctly and is
11 functioning and collecting data, and what lights should be on,
12 and what sequence.

13
14 Maybe just add that to it, Dave, so that we feel good about the
15 fact that we managed to plug everything back in correctly, and
16 we've got the box working again, and then the only other minor
17 thing is you're mailing out three things in a big envelope, a
18 big manilla like eight-and-a-half-by-eleven envelope.

19
20 One of them is this eight-and-a-half-by-eleven piece of paper
21 that we have on the screen, and the other one is a very small
22 chip, and it's just an inch or two, and then the other one is a
23 very small envelope that's smaller than like a regular letter-
24 type envelope. We have two of these devices, and my mother
25 opens the mail, and she's anal-retentive.

26
27 The only reason that she realized that she was missing something
28 is because she had two envelopes. When she opened the second
29 envelope, she said, wait, there's a return envelope in this one,
30 but I didn't get a return envelope in the first letter that I
31 got from NMFS, and so maybe if we could just use an elephant-
32 ear clip and, the three things that we're supposed to have in
33 that big envelope, clip them all together, so we don't screw it
34 up, as fishermen, okay, and mail it back to the wrong place,
35 because we didn't realize that there was a return envelope in
36 there or whatever. That is me being anal-retentive, and thanks
37 for listening, Dave.

38
39 **DR. GLOECKNER:** Okay. All right. Thank you very much. I will
40 get that to my staff.

41
42 **CHAIRMAN BOSARGE:** Then the last thing I was wondering is so I
43 know that chips are in high demand these days, generally
44 speaking, whether it's for a vehicle or a phone or whatever, and
45 how many of these chips do we have in our in-stock inventory at
46 the Science Center, so that I know how many times we can do this
47 without actually having to order something?

48

1 **DR. GLOECKNER:** Let me see if I can pull that up. I know they
2 gave me a background on some of this.

3
4 **CHAIRMAN BOSARGE:** You can get back to us on that, Dave. It's
5 no problem, and we'll just follow-up with you on that maybe at
6 the end of the committee, and how does that sound?

7
8 **DR. GLOECKNER:** That's fine.

9
10 **CHAIRMAN BOSARGE:** Thank you. All right. Dr. Freeman, did you
11 have anything else that you wanted to go through on this agenda
12 item?

13
14 **DR. FREEMAN:** No, ma'am. That's all for this agenda item.

15
16 **CHAIRMAN BOSARGE:** All right. Then that's going to take us to
17 Agenda Item Number V, which is our Draft Framework Action:
18 Modification of the Vessel Position Data Collection Program for
19 the Gulf of Mexico Shrimp Fishery, Tab D, Number 5. Dr.
20 Freeman.

21
22 **DRAFT FRAMEWORK ACTION: MODIFICATION OF THE VESSEL POSITION DATA**
23 **COLLECTION PROGRAM FOR THE GULF OF MEXICO SHRIMP FISHERY**

24
25 **DR. FREEMAN:** I am looking at the Action Guide, and the
26 committee will be presented with a draft framework amendment
27 action to transition the Gulf shrimp fishery from the expired
28 cELB to a new device, or devices, collecting vessel position
29 data for the purpose of maintaining effort estimation.

30
31 Staff will review draft purpose and need statements and draft
32 alternatives, as well as other potential decision points. The
33 committee should ask questions and provide staff with further
34 direction for the draft framework action. If admin staff could
35 pull up that presentation.

36
37 The draft purpose and need, at this point, and this is one of
38 the items that the committee can provide input to staff on, but
39 the purpose of this action is to transition from the expired
40 cellular electronic logbook program to a system that would
41 maintain the council's and NMFS' ability to collect vessel
42 position data, in order to estimate and monitor fishing effort
43 in the Gulf of Mexico shrimp fishery.

44
45 The need is to base conservation and management measures on the
46 best scientific information available and to minimize bycatch,
47 to the extent practicable, as required by the Magnuson-Stevens
48 Fishery Conservation and Management Act, and interactions with

1 protected species, as required by the Endangered Species Act.

2
3 Madam Chair, would you like for me to stop at this point and get
4 feedback, or would you like to take that at the end of the
5 presentation?

6
7 **CHAIRMAN BOSARGE:** I would like to take it as we go, as we
8 examine each item here, and, I mean, it's not a long document,
9 and so I think that would be fine. Did anybody have any
10 feedback on the purpose and need statement, as staff has
11 presented it? J.D.

12
13 **MR. J.D. DUGAS:** A question. Why not use the AIS system?

14
15 **CHAIRMAN BOSARGE:** We've looked at that a little bit, and I
16 think maybe that will come into play when we start to look at
17 some of these alternatives, when we get into the action items,
18 and I think you make a good point that there's some other
19 alternatives out there.

20
21 On the purpose and need, I did have a comment. As I read
22 through the document, and it starts here, when we kind of talk
23 about the expired cellular electronic logbook program, and it
24 really transitions into the document itself, when we're talking
25 about -- One sentence says because cellular transmission is no
26 longer possible, and I think we need to clarify, for people that
27 might not be familiar with the shrimp electronic logbooks, and
28 we need to say "expired 3G cellular", because that is what is
29 expiring, right?

30
31 Cellular is still most definitely a possibility, and 3G is not.
32 That is no longer supported, and so I would suggest, Matt, that
33 we add "expired 3G cellular electronic program", for
34 clarification for stakeholders that may not be familiar with our
35 industry, and that would also follow through in the document
36 itself, wherever you talk about cellular options expiring, and
37 it needs to be clear that cellular is still supported, but it's
38 just 3G that is not.

39
40 Then the other thing that I think is of vital importance in that
41 purpose and need statement -- So there's a balancing act here,
42 as there are with all of our fisheries, when we get into data
43 collection, and you have to balance the scientific need with the
44 burden on the fishery, right, the financial burden, and I think
45 that's not addressed here, and it's most definitely something
46 that will be addressed in the document, and it needs to be
47 addressed here as well.

1 It was the main thing that was addressed the last time that we
2 shifted the shrimp electronic logbook to a new device, and it
3 was cost sharing and burden to the industry, and so I would
4 suggest, at the end of that purpose statement, that we add
5 "monitor fishing effort in the Gulf of Mexico shrimp fishery
6 while also minimizing the financial burden to the fishery, to
7 the extent possible". Would you like that in the form of a
8 motion, Matt?

9
10 **DR. FREEMAN:** I think it would be fine, if you don't mind just
11 reading it again, but I think we're fine as-is, and I am making
12 a note for that to be added.

13
14 **CHAIRMAN BOSARGE:** Okay. Most certainly. I will just the whole
15 sentence then. That way, it will be crystal clear. The purpose
16 of this action is to transition from the expired 3G cellular
17 electronic logbook program to a system that would maintain the
18 council's and NMFS' ability to collect vessel position data in
19 order to estimate and monitor fishing effort in the Gulf of
20 Mexico shrimp fishery, while also minimizing the financial
21 burden to the fishery, to the extent possible. Patrick.

22
23 **MR. PATRICK BANKS:** I have a question as to whether the term "to
24 collect vessel position data in order", that section of the
25 purpose that needs to be there, because you can estimate and
26 monitor fishing effort without collecting position data, and do
27 we need to specify that in the purpose, because, talking about
28 vessel positioning data, that's pretty specific as to what
29 you're doing, but there's a variety of other ways to estimate
30 fishing effort.

31
32 **CHAIRMAN BOSARGE:** Mr. Diaz.

33
34 **MR. DIAZ:** What I think about, when we talk about that, Patrick,
35 is, you know, we have some reduction metrics that we're trying
36 to meet in the red snapper area, and so, to me, I think we
37 almost have to have position data to get that effort reduction
38 data.

39
40 **CHAIRMAN BOSARGE:** Yes, and I'm with you, Patrick, and so the --
41 It does get a little bit in the weeds, right, and so what we're
42 doing is collecting effort data, right, and we're going to look
43 at a different method to do that, right, because 3G has expired,
44 and the purpose statement seems to get a little in the weeds,
45 and it says, well, this is actually what we're looking at, and
46 we're looking at effort estimation.

47
48 Now, we do that by getting a vessel position, but we also do

1 that by getting a time stamp and then plugging into an algorithm
2 and computing average speed, but we don't go into all of that,
3 and, to me, it really should probably say, "in order to
4 estimate", and leave out the other portion, "to collect vessel
5 position data".

6
7 It's all about the effort piece, and that's what you're doing,
8 and that's the end goal, and we have to have a different device
9 to do that at this point.

10
11 **MR. BANKS:** I was just trying to reduce the wording.

12
13 **CHAIRMAN BOSARGE:** You can certainly make a motion, if you would
14 like to, to remove those words from the purpose statement.

15
16 **MR. BANKS:** I will make that motion. You added some words, and
17 I will take some away.

18
19 **CHAIRMAN BOSARGE:** All right, and so I think, if we're going to
20 make the motion, it would probably be cleanest to have your
21 reduction and my addition in one motion, and, that way, staff
22 has a clear view of it. How does that sound? Do you want me to
23 try and put it up there for you, or do you think you've got it?

24
25 **MR. BANKS:** Do you want me to verbalize the whole thing again?
26 I can do that. **The purpose of this action is to transition from
27 the expired 3G cellular electronic program to a system that
28 would maintain the council's and NMFS' ability to estimate and
29 monitor fishing effort in the Gulf of Mexico shrimp fishery
30 while minimizing the economic burden on the industry to the
31 maximum extent possible.**

32
33 **CHAIRMAN BOSARGE:** You did pretty good for remembering all the
34 stuff I said.

35
36 **MR. BANKS:** I was married once, and so you try to remember what
37 she says.

38
39 **CHAIRMAN BOSARGE:** I like it. All right. It will still be just
40 one sentence though, and I think you can take the period out
41 after "fishery". While minimizing the economic burden on the
42 industry to the maximum extent possible. Okay. All right. Any
43 discussion on this motion? We've got a couple of hands. Dale.

44
45 **MR. DIAZ:** I just want to -- I'm in favor of the motion, by the
46 way, but, at the last meeting, we had some discussion about the
47 fact that the data was going to go to law enforcement instead of
48 the Science Center, and I've been reading through these to see -

1 - I mean, the purpose of this is for scientific information,
2 and, at the last meeting, I agreed with some of the stuff that
3 was said, and this is not the same as some other fisheries, and
4 it's not an IFQ fishery, and there's no penalty for them leaving
5 port, and there's not a reason to track these folks except
6 whenever they're pulling a shrimp trawl, and that's the only
7 thing we're interested in, and so I don't know whether it's
8 really a law enforcement issue.

9
10 We're trying to track them for science, and I'm trying to figure
11 out if the purpose and the need reflect that, and I guess I'm
12 asking for other folks' opinion.

13
14 **CHAIRMAN BOSARGE:** So, essentially, you're thinking you want the
15 word "science", or "scientific" somewhere in there, to be a
16 little more clear?

17
18 **MR. DIAZ:** I did toy with trying to adjust it, and a couple of
19 times I've tried to modify it, and it didn't do what I wanted,
20 and so, if somebody thinks that that's appropriate to put in the
21 purpose of the need, if they had some suggestions, I think it
22 might be good to look at it.

23
24 **CHAIRMAN BOSARGE:** I guess you could add "council's and NMFS'
25 scientific ability to estimate and monitor fishing effort". You
26 could add it there, as an adjective. Okay. So this is
27 Patrick's motion. Did we get a second to the motion, before we
28 go too much further here? All right. We've got a second for
29 the motion.

30
31 **Patrick, are you comfortable with the adjective being added**
32 **there of the council's and NMFS' scientific ability, adding the**
33 **word "scientific" there, or if you have a different place.**
34 Okay. Patrick doesn't like to be wordy. John, are you
35 comfortable, as the seconder, with that? We've got Dr. Freeman,
36 and then I want to get to Andy. Okay. Andy.

37
38 **MR. ANDY STRELCHECK:** Just I guess a point of clarification from
39 the motion maker. In terms of the removal of the position data
40 requirement, I am getting hung up on "maintain the council's
41 ability", and so are you wanting to broaden this so that fishing
42 effort data could be collected in more than just position data
43 collection ways, essentially non-GPS ways, because I wouldn't
44 view that as maintaining our ability.

45
46 **MR. BANKS:** Well, I just didn't see the need to specify the
47 position data. If the issue is estimating fishing effort,
48 effort data, you don't have to have position data to necessarily

1 do that. They do it in the South Atlantic with just trip
2 tickets, and you guys do that.

3
4 **MR. STRELCHECK:** We have very specific requirements for
5 monitoring effort in the ten to thirty-fathom zone, and so
6 that's why I'm concerned about removing the reference to the
7 position data here, because of the specificity of that and the
8 ability to be able to collect that data from a very narrow
9 geographic range.

10
11 **CHAIRMAN BOSARGE:** We have pretty specific requirements in the
12 South Atlantic too though, when it comes to turtles and
13 protected species, and so I think we have specific requirements,
14 regardless of the body of water, and I think we can -- I mean,
15 right now, that's not in the document, right? The only thing in
16 the document is essentially the NOAA OLE approved VMS list, and
17 so I think that is a discussion that we can have and choose not
18 to go that route, not to add that to the document, and this
19 won't preclude it either way, but I think we can have that
20 discussion and rule it out or put it in. My guess is that it
21 will be ruled out, but I do like the way this reads, currently.
22 Mara, is your hand up?

23
24 **MS. MARA LEVY:** Yes. Thank you, Leann. Just a couple of
25 things. I mean, just with respect to the position data versus
26 the broader estimate and monitor fishing effort, I'm just going
27 to point out that the thing that's expiring is the thing that is
28 allowing you to get the position data, right, and so there's
29 more that goes into the effort, the fishing effort, estimation,
30 but the thing that you're trying to replace is the position
31 data, and so that's why it was narrowly tailored to specifically
32 address that point.

33
34 Then, with respect to the minimizing economic burden, I would
35 just suggest that you say to the extent practicable, which is
36 the language used in the Act, and it's a practicability thing.
37 If you say "possible", I mean, it could be possible to reduce it
38 to zero, but it's not practical, and so just for the wording on
39 that.

40
41 **CHAIRMAN BOSARGE:** Mara, thank you for that feedback. I would
42 say that, actually, the ability to capture location data has not
43 expired. There is nothing wrong with that. The only thing that
44 has expired is the transmission function, because we are still
45 getting location data right now from the boats. You just have
46 to mail it into the government, and so, to that point, I'm not
47 sure that it's germane to the discussion, but I do like your
48 comment, however, on to the maximum extent possible. **Patrick,**

1 would you be okay with that friendly amendment from Mara to
2 change it practicable? Okay. John, would you be okay with that
3 as well? Okay. All right. So, we've done a lot of tweaking
4 here. Are there any other tweaks or feedback?
5

6 **DR. FREEMAN:** Madam Chair.
7

8 **CHAIRMAN BOSARGE:** Go ahead, Dr. Freeman.
9

10 **DR. FREEMAN:** I apologize for even bringing it up, knowing that
11 we were trying to aim for brevity with this, but, listening to
12 the comments that you made in response to Mara, and, again, I
13 apologize that I am looking at perhaps adding some language back
14 in, but I am wondering if maybe it should still include not only
15 "to collect", but to put that language back in to say "NMFS'
16 ability to collect and transmit vessel position data", because I
17 think some of what the conversation was, even right now, like
18 what Dr. Gloeckner presented, the current units can still
19 collect that data, and so my understanding of this action is to
20 move to a system that will not only be able to collect it, but
21 transmit it, and I don't see that in the current phrasing of the
22 motion.
23

24 **CHAIRMAN BOSARGE:** If staff can put it back up there, the
25 motion. There we go. All right. To maintain the ability to
26 estimate and monitor fishing effort, and so, within that, you do
27 capture -- I mean, that is the way we are capturing fishing
28 effort right now, is by position, a date/time stamp and
29 position, and so we're saying there that we want to maintain
30 that, and so I don't see the need to specify it. I think it's
31 in there.
32

33 **DR. FREEMAN:** Yes, ma'am, and I apologize if I'm arguing with
34 you, but the only thing is, again, I just don't see that there's
35 anything in terms of the transmittal, and that seems to be the
36 issue, because, again, through the SD cards, they can still
37 collect it and calculate the effort data, and I believe that's
38 part of what needs to be addressed.
39

40 **CHAIRMAN BOSARGE:** But it is addressed, Matt, because that is
41 the process we have right now in our fishing effort process. We
42 collect the position data, and we transmit it, and we have said
43 that the 3G transmission is expiring and that we want to
44 maintain our ability to continue the fishing effort, essentially
45 survey, that we have going right now, and I don't think we need
46 to get too far into the weeds on that, and so any further
47 feedback? Andy.
48

1 **MR. STRELCHECK:** Well, I certainly support what Matt is
2 suggesting. With that said, I also agree with your point, Madam
3 Chair, with regard to this can be addressed later in the
4 document, and so this is more generic to have a purpose
5 statement, and that maybe I would like for that, and maybe it to
6 be covered in the amendment, and so I think we need to get into
7 the actions and alternatives and decide, obviously, whether this
8 would be narrowed or not.

9
10 **CHAIRMAN BOSARGE:** Thank you. All right. Any further feedback?
11 **If not, is there any opposition to the motion? Seeing none, the**
12 **motion carries.** Dr. Freeman.

13
14 **DR. FREEMAN:** Some of this information was provided by Dr.
15 Gloeckner in his presentation, and so I will sort of skip to the
16 last bullet point. Just as a reminder, and some of this was,
17 obviously, just discussed through the purpose and need, the
18 council is exploring alternatives, through this framework action
19 to the cELB program, in order to continue to the estimation of
20 effort in the shrimp fishery, which will assist in conducting
21 annual shrimp stock assessments, estimating bycatch of other
22 species for use in other species assessments, and monitoring the
23 sea turtle and juvenile red snapper bycatch thresholds.

24
25 If we can move to the next slide, Action 1, and, currently, we
26 only have one action in the document, is to modify the method
27 used to collect vessel position data for the Gulf of Mexico
28 shrimp fishery, and there is a note in the action that says that
29 the types of data and amount/timing of data collection would not
30 vary between alternatives, and then, consistent with current
31 requirements, the permitted vessels selected to participate must
32 also provide NMFS with size and number of shrimp trawls deployed
33 for each set and the type of BRD and TED used in the nets.
34 Compliance with these requirements and the requirement to submit
35 vessel position data is required for permit renewal.

36
37 Alternative 1, which is our no action, would be to maintain the
38 current method, and it notes that, currently, because cellular
39 transmission is no longer possible, and taking into account Ms.
40 Bosarge's earlier comment, I think we will be certain to add in
41 "3G cellular transmission", that NMFS will collect the memory
42 cards from the units via mail.

43
44 Alternative 2 is to modify the method to collect vessel position
45 data. If selected, the owner or operator of a shrimp vessel
46 with the valid or renewable moratorium permit would be required
47 to install an approved vessel monitoring system, or VMS, that,
48 at a minimum, archives vessel position and automatically

1 transmits that data via cellular or satellite to NMFS. Before I
2 proceed to the next slide, Madam Chair, would you like to have
3 some discussion at this point?

4
5 **CHAIRMAN BOSARGE:** Yes, sir, and so this is pretty much the meat
6 of the document, right, and there's only one action currently in
7 the document, and there is only two alternatives, status quo and
8 moving us to -- So, essentially, as you've heard, the agency
9 kind of voiced their concerns before that -- So, the last time
10 we had the transition, right, we transitioned from the system
11 that LGL had on the boats to NMFS taking over the program, the
12 shrimp ELB program, and running it in-house.

13
14 We went through a document then to figure out cost sharing and
15 things like that, and, in the document, it said that we were
16 going to publish tech specs for vendors to apply, and then the
17 industry could choose. Well, in reality, it didn't end up going
18 that way, and that's fine, because it turned out well.

19
20 What NMFS ended up doing was they found an off-the-shelf unit,
21 and they purchased enough to cover the sample of the fleet that
22 has them, and then they actually programmed that unit to work
23 for shrimp, right, to ping at the right rate and to have the
24 data in the right format, and they mailed them out to the
25 shrimpers and said, here you go, here's your unit, and put it on
26 the boat, and they'll get you an account with this telephone
27 company so that it can transmit.

28
29 This time, in today's world, what I think NMFS would like to do
30 is to not sole-source it like they did last time, and they would
31 actually like to get the tech specs and put them out there for
32 vendors to apply to meet, and, that way, there will be more than
33 one vendor supplying these potential devices.

34
35 The way that NMFS is going about that in this Alternative 2 is
36 to actually use the tech specs that have already been published
37 for VMS for the for-hire fleet and the IFQ fleet, the reef fish
38 guys, and say, okay, shrimp fleet, we have some approved
39 vendors, and you pick from one of these and put this device on
40 your boat.

41
42 My one concern with that Alternative 2, as it stands right now,
43 is that the devices we have now are cellular, and it would be my
44 intention that that would hopefully be the route that we would
45 move forward, maintain what we have, which is cellular. This
46 though says cellular or satellite, and so that VMS list of
47 approved vendors, ninety-something percent of the options are
48 satellite, and there is one cellular option on there now, and I

1 think there is soon to be two, or possibly three.
2
3 However, what if something happened with those cellular options?
4 The shrimp fleet would be pigeon-holed into using satellite
5 devices, and, to me, that's a non-starter, because, for us to
6 use a satellite device, because our ping rate is six times an
7 hour, it will cost us hundreds of dollars per month, and so we
8 will be paying thousands of dollars a year for overkill that we
9 don't need, and our fleet is just not profitable enough to
10 handle that.
11
12 I would suggest that we modify that Alternative 2 to remove the
13 "or satellite", because, really, the only options on that list
14 that are viable for our industry are cellular, from a financial
15 perspective, but I would like to hear some discussion on that,
16 before we make any motions. Andy.
17
18 **MR. STRELCHECK:** Thanks, Leann. I guess a couple of comments.
19 I agree that cost is going to be extremely important here, and
20 so I'm hearing you loud and clear on that, and, obviously, of
21 course, the change to the purpose that you made just now.
22
23 To me, this provides additional flexibility, cellular or
24 satellite. I realize that satellite likely wouldn't be an
25 option that would be selected, but it could be an option to be
26 selected. We do have rock shrimp fishermen in the South
27 Atlantic that are required to have satellite VMS units, and I
28 don't know how many of those do shrimp in the Gulf, or if they
29 do shrimp in the Gulf, and they don't need to go out and buy
30 another unit if they already have a satellite VMS that complies.
31
32 I am also asking if there's an unusual circumstance for anyone
33 with a reef fish permit that is required already to have a VMS
34 in our reef fish fishery, because, once again, they wouldn't
35 want to buy another unit, for the sake of meeting this
36 requirement, if they already have a working satellite VMS, and
37 so, to me, I think it makes sense to maintain the flexibility.
38 No one's goal is to pigeon-hole the industry into paying for a
39 more expensive unit, but rather have all options on the table.
40
41 **CHAIRMAN BOSARGE:** Yes, and those are good points. However, I
42 think that the risk far outweighs the reward, the possible
43 reward, and so we have a VMS on one of our boats, because we
44 have one of those South Atlantic rock shrimp permits, and that
45 runs us, right now, at once-an-hour ping rate -- It's about
46 eighty-dollars a month.
47
48 Now, it's going to cost two-or-three-hundred dollars a month.

1 If we chose to use that device we already have to meet this Gulf
2 requirement, it would cost us two-or-three-hundred dollars a
3 month. Well, there's no reasonable individual that would go
4 that route when you can pay twenty-dollars a month. It's still
5 cheaper to put a different device on the boat and maintain it
6 than it is to pay two-thousand dollars a year in -- I mean, when
7 you got to two-or-three-hundred dollars a month in a service
8 fee, that's no longer a monthly bill. That's a note, in my
9 world. I've had car payments that are three-hundred-and-
10 something dollars a month.

11
12 I mean, that's not even reasonable, and the risk here is -- So,
13 right now, I mean, the shrimp fleet is in a situation where our
14 cellular option is no longer viable, and so what happens if
15 that's also the case in the future, and we have told the shrimp
16 fleet that, no, you just have to choose something from the
17 approved list, satellite or cellular. Well, if the cellular
18 options you had on there are expired for some reason, we don't
19 have a choice. You have pigeon-holed us into those three-
20 hundred-dollar-a-month unit that we would never otherwise have
21 chosen to use.

22
23 As far as the number of people parking a shrimp permit on a reef
24 fish boat, there may be one or two, but I am not willing to take
25 the risk that the industry gets pigeon-holed into two-or-three-
26 hundred dollars a month to take care of two or three people, and
27 so I would suggest that we take that out. That's not a viable
28 option, to me. It doesn't meet that qualification of the
29 burden, the financial burden.

30
31 **I would make a motion that we remove "or satellite" from**
32 **Alternative 2.** We have cellular units now, and that's what we
33 hope to go forward with, and hope to have some viable options,
34 and I would never want to see us end up arbitrarily in a
35 situation where we have to use a three-hundred-dollar-a-month
36 unit. **In Action 1** -- Thank you. Yes, sir, Mr. Diaz, while
37 they're getting that on the board.

38
39 **MR. DIAZ:** I will second your motion for discussion.

40
41 **CHAIRMAN BOSARGE:** That's my motion. **In Action 1, to remove "or**
42 **satellite". Alternative 2 reads: Modify the method to collect**
43 **vessel position data. If selected, the owner or operator of a**
44 **shrimp vessel with a valid or renewable mortarium permit would**
45 **be required to install an approved vessel monitoring system**
46 **(VMS) that, at a minimum, archives vessel position and**
47 **automatically transmits that data via cellular to the National**
48 **Marine Fisheries Service.** I see Mara has her hand up.

1
2 **MS. LEVY:** Thank you. So, with this, I have a couple of points,
3 but I guess I have a question. By removing "or satellite", is
4 your intent to not allow people to use satellite if there is
5 one available that would perform the functions that are required
6 by the FMP?

7
8 **CHAIRMAN BOSARGE:** That's right. You're going to have to put a
9 cellular device on that boat, and, Mara, that's -- I am going to
10 tell you that I don't see where that's going to happen. I mean,
11 we have one of those VMS satellite units on one of our boats,
12 and there's not a chance in hell that we would ever use that to
13 satisfy this requirement, because it would cost us too much
14 money every month.

15
16 I mean, yes, NMFS reimburses the cost of one of those satellite
17 units, which is two-or-three thousand dollars, and everybody is
18 like, wow, that's a lot of money, and that's how much we would
19 pay every year, just in service fees, if we chose to use that
20 unit, and so it's really not a viable option for the shrimp
21 fishery, even if you have one on the boat.

22
23 **MS. LEVY:** Okay. Well, I mean, I guess my point is just that
24 you're -- Just so everything is on the table, right, you're
25 essentially eliminating the option for people to do it, but, if
26 that's your intent, then one other thing that I would look at in
27 the language is that it says, "at a minimum, archives vessel
28 position and automatically transmits via cellular", and so, when
29 we used that same language in the for-hire reporting, that "at a
30 minimum" language, how that was interpreted was, at a minimum,
31 you could do it and do cellular, but allowed you to do
32 satellite, because that was above the minimum. Satellite could
33 do position without archiving it or whatever, and I just want to
34 make sure, also, that the alternative is clear, if your intent
35 is to basically tell people they cannot use satellite.

36
37 **CHAIRMAN BOSARGE:** Gotcha, and so your suggestion is, to be
38 clear, we would need to remove the words "at a minimum", and I'm
39 fine with that. **We can also strike through "at a minimum", if
40 my seconder is okay with that.** I am getting a thumbs-up. Okay.
41 Dr. Freeman.

42
43 **DR. FREEMAN:** Madam Chair, if you don't mind, just a wording
44 suggestion, and I promise that it will be easier than the last
45 suggestion I had. Could we remove the "via cellular" and just
46 have it read "automatically cellularly transmits", and I promise
47 that's a word.

1 **CHAIRMAN BOSARGE:** Sure.
2
3 **DR. FREEMAN:** You can Scrabble check me if you want.
4
5 **CHAIRMAN BOSARGE:** If you like that better, I'm good with that,
6 Matt.
7
8 **DR. FREEMAN:** I had the "via cellular" since it was trying to
9 explain it with one choice or the other, but, if that's the only
10 option, then --
11
12 **CHAIRMAN BOSARGE:** **So automatically cellularly, and you like**
13 **that word, and you believe it's a word.** All right. Transmits
14 that data and then remove -- There you go.
15
16 **DR. FREEMAN:** Thank you, ma'am.
17
18 **CHAIRMAN BOSARGE:** Yes, sir, and so they'll just need to change
19 it in that kind of introductory sentence up there, too. **To**
20 **revise Alternative 2 as follows.** How about that? Excellent.
21 All right. The seconder is also good with that. All right.
22 Any further discussion on this motion? **Seeing none, is there**
23 **any opposition to the motion? One opposed. The motion carries.**
24 Mr. Diaz.
25
26 **MR. DIAZ:** I am just -- I don't know if this is the right term,
27 but I know the industry has spent a fair amount of money on the
28 P-Sea WindPlot at this point, and we're going to look, later, at
29 potentially funding some more work on P-Sea WindPlot, and I
30 would like to see if we could have some discussion here, and I
31 don't know if Matt is the right person, or if Clay is, but to
32 really see if that's a viable thing. I mean, some money has
33 already been spent, and we're looking at spending some more
34 money, and is that something that is really viable, and is this
35 the right time to talk about that?
36
37 **CHAIRMAN BOSARGE:** Well, so, it could be. We are going to have
38 a presentation on that, right after this document.
39
40 **MR. DIAZ:** That's right. Okay.
41
42 **CHAIRMAN BOSARGE:** Okay. Ms. Guyas.
43
44 **MS. MARTHA GUYAS:** Dale brings up something that was sort of
45 going to ask here. I guess, if we did move forward with that,
46 eventually, does that fit under Alternative 2?
47
48 **CHAIRMAN BOSARGE:** All right. Are we ready? No, it's all

1 right. Andy and I are getting ready for our stare-down. In
2 your briefing book, there are -- This alternative, it refers to
3 these approved vessel monitoring systems, VMS systems, right?
4

5 Well, there is a whole host of technical specifications that say
6 what that system is, right, and I have read through those so
7 many times I think I could quote them to you. Essentially,
8 those were written, originally, to satisfy IFQ reporting
9 requirements, for their VMS that they have to have for law
10 enforcement, and they then kind of tweaked it a little, to make
11 sure that they now encompass the for-hire fleet, some of their
12 requirements, and Andy is going to disagree with me here, but
13 it's my opinion that they do not meet the purpose and need for
14 shrimp ELBs, okay, and there's a couple of things in there.
15

16 Number one, they're complete overkill for what we need. You saw
17 that picture of our box earlier, and that box is a GPS signal,
18 and it records your latitude, longitude, date, and time. That
19 is all our system does, and it transmits that to NMFS.
20

21 The IFQ guys, and even for-hire guys, their system -- They have
22 to be able to talk to NMFS from offshore. They have to hail-
23 out, and they've got hail back in from offshore, which they can
24 do through their VMS system, and they have to give estimated
25 landings, and they've got -- Their system is capable of handling
26 the forms that they have to fill out, and it's capable of
27 transmitting emails, and it has an address book, and it has sent
28 receipts and read receipts and all sorts of stuff that we have
29 no need for in the shrimp industry.
30

31 That alternative would, if the council went that route and we
32 approved it and took final action, would say, well, shrimp
33 fleet, that's all fine, good, and well, but you're going to have
34 to have a device that does all of this, when we really don't
35 need it, and, as you know, the more stuff you have on there, the
36 more it costs. The higher tech it is, the more maintenance it
37 is.
38

39 Personally, what I think should happen is that we should have
40 specifications that are built around satisfying the purpose and
41 need of the shrimp electronic logbook. Now, I know Andy has
42 some reservations about that, because he thinks it's
43 duplicative, but I will let him to speak to it. Let me give you
44 a shot, Andy. Go for it.
45

46 **MR. STRELCHECK:** Thank you, Madam Chair. As you can tell, Leann
47 and I have spoken quite frequently on this topic, and we've also
48 had some really good discussions with other shrimp industry

1 members, and so I want to first commend the industry, because I
2 think you've done a great job of leading this effort, with your
3 work on P-Sea WindPlot, and really thinking in terms of the
4 needs of the industry.

5
6 We are, I think, in a different perspective with regard to how
7 to proceed. I have heard, today, kind of reference to the
8 specifications that were developed for the for-hire and reef
9 fish program, and, while that is true, that they are specific to
10 those programs, it's much more broad than that. It's a national
11 program that now the agency has developed to standardize and
12 approve VMS devices, including cellular devices.

13
14 One of the problems that we were facing was the emergence of new
15 technology, all of the security requirements and standards we
16 have to meet, and the regions and the Science Centers not
17 necessarily having the expertise and the knowledge to approve
18 those, and so we developed a rulemaking, with our Office of Law
19 Enforcement, I guess over a year ago at this point, and that
20 rulemaking now provides a very clear, detailed type-approval
21 process that Leann thinks that maybe is too much or doesn't
22 quite meet the needs of the industry, in terms of being
23 overkill.

24
25 Nonetheless, we have that, and we have a number of units that
26 have -- Well, we've had a number of units that have been
27 approved for satellite VMS for quite some time, and now we're
28 getting approval for more cellular units that are either being
29 tested, going through the type approval, or have met type
30 approval standards, and so it does provide, obviously, a broad
31 base of devices in which the industry can choose from that are
32 readily available.

33
34 When we talked directly to LGL and Associates about P-Sea
35 WindPlot and some of the specifications for type approval and
36 their conversations with our Law Enforcement Office, it was
37 evident and clear to them that they would never be able to meet
38 those type-approval standards

39
40 My concerns, I guess, more broadly, is, one, we have a
41 standardized process in place for the Fisheries Service that
42 these off-the-shelf units are available and could be used for
43 the industry, and there is more being developed and available
44 for use. By going down a separate kind of type-approval
45 process, it doesn't limit them, the next fishery, from wanting a
46 third type-approval process and another type approval, and, once
47 again, kind of going back to what are the standards and
48 protocols and how do we approve those devices as an agency, it

1 just becomes more cumbersome.

2
3 At the end of the day, the agency's position is really to
4 support the existing standardized process that has been
5 developed, that is more than just the for-hire reef fish
6 fishery, but I have also told Leann that, if there are specific
7 requirements that are kind of a deal-breaker no-go from the
8 industry standpoint, I would like to hear those and go back to
9 our law enforcement office and talk to them more specifically,
10 as to whether or not -- I will call them exemptions, or
11 standards be modified or adjusted to best suit the needs of the
12 shrimp industry needs, and I don't know if that can happen, but
13 that's certainly something that we're willing to consider.

14
15 **CHAIRMAN BOSARGE:** To that end, I have been listening to Andy as
16 we go through these conversations, although sometimes I don't
17 want to, but I love him, and so I do, and I do hear some of the
18 things he's saying, and so I do hear that there was this concern
19 that where does the technical expertise lie in writing these
20 technical specifications, within the Science Center or within
21 whoever, and so let's use the ones that have already been
22 written, and so I listened to that, but I knew that the ones
23 that had been written weren't going to work for shrimp, and I
24 can give you specific reasons why.

25
26 I mean, the first thing is your tech specs for these devices say
27 that and EMTU, or EMTU-C, and that's a cellular device, must
28 have the ability to store 1,000 position fixes in local, non-
29 volatile memory. Well, nobody with a shrimp background I guess
30 has ever read this thing, and that's what frustrates me right
31 now, because 1,000 position fixes for reef fish, where they ping
32 once a day, well, that's fine, and that will give you a lot of
33 data, but six times an hour for shrimp will get you seven days'
34 worth of data on a thirty-day trip.

35
36 So you're going to send a boat out, and you will get one week
37 worth of effort data out of a four-week trip, every time he goes
38 out, if he stays out for thirty days. These were not written
39 with shrimp in mind. I want our data to be the best it can be,
40 and it is my job to make sure, whether we use the P-Sea WindPlot
41 program or one of these off-the-shelf things that we have, that
42 it works, that we don't end up, two years down the road, going,
43 damn, we should have looked at that a little closer, because now
44 we've got really crappy data, and we've got a bunch of holes
45 we're trying to fill in.

46
47 What I did, and this is what I did. I took the NOAA OLE tech
48 specs, which is like twelve or fifteen pages, something like

1 that, of tech specs, and I went through them. I nixed
2 everything that doesn't apply to shrimp, that we don't need, the
3 parts that is overkill, right, this messaging, the email, the
4 sent receipts, the address book, all the stuff that we don't
5 need. We need a barebones unit.

6
7 I changed the things that I thought would essentially implode
8 our scientific effort data system for shrimp, and I changed the
9 position fix, where you have to store a certain amount of
10 positions, and I changed it, so that we would at least have a
11 hundred days' worth of storage capacity, a hundred days' worth
12 of data, at a six-per-hour ping rate stored on that unit.

13
14 I changed the part up here at the top where it says your NOAA
15 OLE tech specs for all the other devices say that it has
16 messaging and communications mechanisms that are completely
17 compatible with the NMFS vessel monitoring and surveillance
18 software. That's not what we need in shrimp. We need data that
19 is compatible with the NMFS shrimp effort algorithm, right?

20
21 Maybe the VMS OLE stuff is compatible, and I don't know. I know
22 that it's irrelevant though for shrimp effort data. We don't
23 need it to be able to be compatible with law enforcement's
24 software system. We need it to be compatible with the Science
25 Center's software programs for effort data collection, with that
26 algorithm, and so I made those types of minor changes.

27
28 What I didn't change was all the stuff that Andy was talking
29 about, about the security stuff, the whole process for vendor
30 approval, the process for them to appeal, the notification, all
31 what I call the legalese parts, right, and I kept those intact,
32 and so I emailed that out to the council, or I asked staff to,
33 and I guess they did, and, if you can pull it up, we can look at
34 it if you want to, but, generally, that's what -- In my opinion,
35 that's where we have to go.

36
37 Andy has talked about looking at the OLE specs and exempting the
38 shrimp fishery from some of them, and I think Andy and I are
39 kind of saying the same thing. That's essentially what I did.
40 I threw out the stuff that doesn't matter, and I changed the
41 stuff that I thought is really going to give us that data,
42 scientific data.

43
44 I tried to change things to make sure we'll have good data,
45 going forward, and I would like to see that added as an option
46 in this document, and the option would be very general. It
47 wouldn't say you have to use these specs right here, and this is
48 just what I'm supplying to Andy and to the Science Center as a

1 base to look at and adapt, as you see fit, and these are the
2 things that, as somebody industry, that has been on a boat,
3 these things aren't going to work, and this is what we've got to
4 change to get useful data in the shrimp fleet and have that as
5 an option to have shrimp tech specs for vendors to apply to, to
6 make sure that we actually still have a scientific effort data
7 collection program when we implement this, and we're not redoing
8 this a couple of years down the road. All right, Andy. Your
9 turn. All right. Other council members. There he goes. He's
10 ready now. Andy.

11
12 **MR. STRELCHECK:** Well, everyone else is being shy, I think. I
13 certainly, at this point, wouldn't support including these in
14 the document. I understand your intent, and I would want to, as
15 we've discussed, go back to our Office of Law Enforcement and
16 really kind of walk through your concerns and understand them
17 better.

18
19 There's terms like minimum of certain number of data points
20 collected, and, well, what's the average amount of data
21 collection that our currently-approved units already does,
22 right, and I see how you're addressing the concerns from the
23 shrimp industry, but I am not necessarily seeing that as a
24 current problem, unless the units themselves that are already
25 approved don't meet that requirement, right, and so that's the
26 kind of compare and contrast that I feel like we need to do with
27 kind of the level of detail here.

28
29 Then, from a standpoint of kind of type-approval, what's
30 appropriate within the council's purview that we can specify
31 that is outside of any sort of kind of broader type-approval,
32 versus what are things that truly are representative of a type-
33 approval change and would require, potentially, additional
34 rulemaking.

35
36 **CHAIRMAN BOSARGE:** To your point, Andy, the two -- The one unit,
37 cellular unit, you have approved right now, and the one that
38 you're working on approving, they do hold more than a thousand
39 datapoints. They do. I checked into it, and I looked into it.
40 However, to tell a vendor that that's all they need, I don't see
41 how you could disapprove somebody that comes up and only can
42 store a thousand data points, about a week's worth of data, for
43 a four-week trip.

44
45 Whether we like it or not, these tech specs are going to have to
46 be amended in order to ensure that you get what you need from
47 that shrimp fleet, as far as data goes, and so, if we're going
48 down that route, I don't want to halfway do it. I want to do it

1 right.

2
3 If we're going to have to amend them, I want them to be amended
4 to fit our purpose and need in the fleet. I see Mara's hand up.
5 Wait a minute. Wait a minute. Hold on, Mara, because Martha
6 had her hand up, and maybe one more, and then we'll come to you,
7 Mara.

8
9 **MS. GUYAS:** Thanks. I'm not on your committee, and so I'm just
10 letting it go here. I mean, in my mind, if this is something
11 that we're going to consider in the future, I would put it in
12 the document, but that's just me. I mean, I don't know that I
13 fully understand the timeline, but it just seems like we could
14 probably streamline things by including it now, or at least as
15 we move through this process, but you all are the committee, and
16 you all are the experts.

17
18 **CHAIRMAN BOSARGE:** Go ahead, Dale.

19
20 **MR. DIAZ:** I mean, I'm listening to all sides of this, and I
21 don't know. To a certain extent, we don't have a crystal ball
22 to know the future, but I do think this is a very different
23 fishery. I know we're looking back to law enforcement for
24 stuff, and, to me, it's not even a law enforcement issue. Like
25 I said, it's not an IFQ fishery, and they prosecute it so much
26 differently.

27
28 In our area of the world, and bear in mind this doesn't account
29 for all shrimpers, but I see a lot of shrimpers tied to the dock
30 for long periods of time, and I'm sure they power these things
31 completely down, and I don't think they let some of the other
32 ones power down in the IFQ fishery, and so there's a lot of
33 differences in these fisheries.

34
35 There's good points on both sides, and I do understand, Andy,
36 that this is a whole new different set of standards that you
37 have to look at and make, and so I'm trying to figure out where
38 to land on this, but it is a substantially different fishery
39 than the other ones that I know of we're using for it, and they
40 don't have hail-in, and they don't have to hail-out, and so a
41 lot of different things. Thank you.

42
43 **CHAIRMAN BOSARGE:** Dr. Porch and then Ms. Levy.

44
45 **DR. PORCH:** Thank you. A couple of points. One, just to
46 confirm that those type-approval for storage are just minimum
47 requirements from OLE, and it's not that we couldn't require
48 more, and, obviously, we would require that, but that's just for

1 them to get their approval, but certainly we could write, more
2 specifically, how much storage space you need, but that's
3 actually a tiny amount, and almost any vendor could easily
4 accommodate much more storage.

5
6 The other thing that I wanted to address was the issue of having
7 the receiving end and having duplicative systems, and, in this
8 case, we have the Office of the Chief Information Officer that
9 has the expertise and the resources to operate a system that
10 already exists. We actually neither have the expertise nor the
11 reasons to create a whole new system to process this
12 information, and so we really do need to rely on the existing
13 system. Thank you.

14
15 **CHAIRMAN BOSARGE:** All right, and so I will try and put forth a
16 motion, and I tried to make this as streamlined as possible, and
17 it gets back to what Martha said. I think, if you don't put it
18 in the document, you will never have this conversation, and so
19 you've got to put it in the document to actually evaluate it and
20 look at these things. Yes, sir, Mr. Anson.

21
22 **MR. ANSON:** Mara I think still had her hand up, and she might
23 have something to --

24
25 **CHAIRMAN BOSARGE:** Thank you, Kevin. Mara.

26
27 **MS. LEVY:** I knew I should have come in person, so I could wave
28 my hand around. Thank you. Well, I just wanted to say that,
29 right now, Alternative 2 is not that prescriptive, right, and so
30 it's modify it so that you have to install an approved vessel
31 monitoring system.

32
33 To me, whether you can modify the current VMS requirements in
34 any way to get the approval, or whether, like Clay said, you add
35 something that's beyond the minimum that is needed for this
36 program, and you make that clear in the document, it would still
37 be the same alternative, right, and you would still want
38 somebody to have an approved system, and so I am not sure that
39 adding another alternative is going to give you much.

40
41 It seems more like the agency needs to look at what you
42 provided, in terms of what you're suggesting would need to be
43 changed or allowed for, and come back with what is feasible and
44 what they think isn't, and so that's just my suggestion, and I
45 don't really think the third alternative is going to get you
46 much more at this point.

47
48 **CHAIRMAN BOSARGE:** Mara, I appreciate those comments. It would

1 be my prerogative that this is a council document, and I want
2 the council to evaluate it. I want the council to look at the
3 tech specs that are behind Alternative 2, versus the tech specs
4 that would be behind Alternative 3, and what are those
5 differences, and I think this discussion needs to happen in an
6 open and transparent manner for all of our stakeholders to
7 understand and our council members to see.

8
9 For that to happen, we have to have it in the document. I don't
10 think it needs to be just an agency conversation, because it
11 gets into more than just the tech specs. It gets into what Dale
12 said, right, and so the tech specs that I created, off of the
13 OLE tech specs, it does omit that one tec spec that says that it
14 has to ping 24/7/365 days a year, because our current system is
15 not set up under that requirement.

16
17 Our current ELBs, when you come to the dock and you power that
18 boat down, that's it. The ELB quits pinging, and it's not a
19 problem, because, as Dale said, we're a different type of
20 fishery. You need to know when we're towing. We can't tow a
21 net through the water without the boat cranked up and running,
22 right? When the boat cranks up and runs, the unit powers up,
23 and it starts to ping again.

24
25 It's things like that, that, as you actually get into the tech
26 specs and look at the ones that I have created as a base
27 scenario for NMFS to tweak on, versus the ones that are
28 currently required for the IFQ fishery, that's where we'll
29 actually get into these meaningful conversations, but, until you
30 put that information in the document, you can't really compare
31 the two and understand it, and so here's my motion.

32
33 **MS. LEVY:** Leann, just to that point.

34
35 **CHAIRMAN BOSARGE:** Yes, ma'am.

36
37 **MS. LEVY:** I just think we need to be careful about what is in,
38 quote, the VMS regulations, or the for-hire regulations, that
39 are under the Gulf Council's FMP, right, the 622s, and what is
40 under the VMS approval tech specs, some of which may overlap,
41 but the idea that something pings 365 days a year, every hour,
42 that's a Gulf Council requirement, and certainly you could
43 change that, right?

44
45 I guess I would just urge some caution, or deliberation, about
46 separating those two things, and, without having the chance to
47 look at the document provided in any detail that you gave, it's
48 hard for me to like parse it out right now, I guess. Thank you.

1
2 **CHAIRMAN BOSARGE:** Thanks, Mara. I appreciate that, and, you
3 know, I'm actually the one that requested that the tech specs
4 behind the agency's alternative, that VMS alternative that's in
5 there, actually be put in the briefing book, so people could see
6 those. Otherwise, we wouldn't have those in front of us to look
7 at either, and so I'm all about getting it all in front of the
8 council.

9
10 **My motion, staff, it would be, in Action 1, to add an**
11 **Alternative 3, and what I would like you to do is copy-and-paste**
12 **that Alternative 2, and then I will modify it just a little bit.**
13 **Alternative 3 is modify the method to collect vessel position**
14 **data. If selected, the owner or operator of a shrimp vessel**
15 **with a valid or renewable mortarium permit would be required to**
16 **install an approved electronic logbook that -- We're going to**
17 **strike -- You already struck "at a minimum". Electronic**
18 **logbook, and then strike "vessel monitoring system". There we**
19 **go. That archives vessel position and automatically cellularly**
20 **transmits that data to the National Marine Fisheries Service.**

21
22 Essentially, what that's going to do is, when you get rid of
23 that VMS language, which that's -- As Mara said, one part of
24 that is those technical specifications that relate to VMS, and
25 we are going to have an approved electronic logbook for shrimp,
26 and I will submit those technical specifications for an
27 electronic logbook to NMFS, for them to take a look at, and
28 hopefully -- If they have some revisions to those, I'm all ears,
29 and that can be a base-case scenario, and we can compare the two
30 and see which is the best route to go at our next meeting and
31 really start getting into the details of what requirements come
32 along with these tech specs and what is necessary, and so that's
33 my motion, if I can get a second. There's a second by Mr.
34 Banks. Is there discussion on the motion? Andy.

35
36 **MR. STRELCHECK:** I guess a couple of things. I will certainly
37 commit to following-up, and I appreciate you sharing your
38 thoughts, in terms of technical specifications. To me, the
39 Alternatives 2 and 3 only differentiate themselves is there is
40 things that are outside the council's purview that can't be
41 modified with regard to the VMS specification, and so that's
42 something that we need to, obviously, figure out and determine
43 kind of what's in the council's purview to specify and what's
44 kind of in the existing VMS regulations that would truly be a
45 regulatory change in order to require those VMS units in the
46 shrimp fishery.

47
48 I am going to speak against the motion today, just for those

1 very reasons, that I don't feel like we have enough information
2 before us to make a decision or to proceed with this, and we
3 would certainly be able to come back in August with more
4 information to proceed with a decision.

5
6 **CHAIRMAN BOSARGE:** Is there further discussion? Okay. All
7 those -- Dale.

8
9 **MR. DIAZ:** So I am going to speak in favor of the motion, just
10 putting it in the document at this point. We could always
11 remove it if we need to, but I think what Leann is trying to do
12 is to create an alternative with using this electronic logbook
13 language that might not -- That might be a way around VMS
14 specifications, and so I think what Andy said needs to happen
15 before the August meeting can still happen, and, if for some
16 reason, at the next meeting, we could put this in considered but
17 rejected, if there's not a need for it, and so, at this point, I
18 don't see a problem with that. Thank you.

19
20 **CHAIRMAN BOSARGE:** All right. **All those opposed, we have one in**
21 **opposition. All those in favor say aye; all those opposed. All**
22 **right. The motion carries with one opposed.** Mara, is your hand
23 back up?

24
25 **MS. LEVY:** Yes. You already voted on it, but, I mean, I just
26 want to make the point that, whether you call it an electronic
27 logbook or not, if it meets the definition of a VMS, which is
28 essentially a system that is designed to monitor the location
29 and movement of vessels, using satellite or cellular, then it is
30 a VMS, and so I feel like we talked about this at the beginning
31 of this process, and I just want you to keep in mind that
32 calling it an electronic logbook -- I am a little bit concerned
33 about Dale's comment that this somehow is a way of, quote,
34 getting around the VMS requirements.

35
36 I mean, it is a VMS, and so the issue is I think what Andy said
37 of what is within the council's purview to decide, in terms of
38 what the program needs, versus what is in the current approval
39 process and whether there is wiggle room there or it would
40 require some sort of potential change to that general process.
41 Thank you.

42
43 **CHAIRMAN BOSARGE:** Thanks, Mara. Dale.

44
45 **MR. DIAZ:** Mara, I might have phrased it wrong, and thank you
46 for your correction, but my intention is not really -- Maybe I
47 did say get around, but I think there is some different needs to
48 this fishery, and one of them that we talked about just a minute

1 ago is a prime example. In the VMS system, it's talking about
2 these things being powered up 365 days a year, and the shrimp
3 fishery -- I know, in our area, there are boats that tie up for
4 months at a time, and I just think there's a lot of things that
5 is different in the shrimp fishery, where maybe we just need to
6 look at it different, but my intention is not to circumvent a
7 law, or a requirement, though. Thank you, Mara.

8
9 **CHAIRMAN BOSARGE:** All right. Dr. Froeschke has a question and
10 then Andy.

11
12 **DR. JOHN FROESCHKE:** Thank you. My question is for Mara and her
13 statement. Just for clarification, the cellular logbook that
14 just expired, or we're phasing out, are we now interpreting that
15 previous system as a type of VMS too? I am just trying to
16 understand the scope of this, whereas this new program isn't
17 fundamentally different than what we called cellular before, but
18 now it's sort of being encompassed in this broader framework of
19 VMS, and it seems like it's hard to understand all that.

20
21 **MS. LEVY:** Leann, may I respond?

22
23 **CHAIRMAN BOSARGE:** Yes, ma'am. That was directly to you. Go
24 ahead.

25
26 **MS. LEVY:** Okay. I mean, I think, at the time that this program
27 was put in place, there was no option for a cellular, quote,
28 VMS. The agency hadn't thought about cellular VMS, but that's
29 become more of a desire, not only here, but on the west coast,
30 with the different regions looking at wanting location-tracking
31 devices that use cellular capability, and so the agency rolled
32 that into the current VMS program, to provide that, and I think,
33 now, the agency's position is, yes, these cellular-based
34 location-tracking devices are VMS. The tech specs that are on
35 the books, and I'm talking about the general approval tech
36 species, are on the books to approve those.

37
38 The thing that Dale mentioned about how often it's on, that is
39 something that the council decided for reef fish and the for-
40 hire, and the council can decide something else, and so that's
41 why I'm saying I just think we need to be clear and parse out
42 what the council decision points are, what are in the general
43 VMS approval process regs, and, like Andy said, what in those
44 regulations either have flexibility or may need some amendment,
45 if that's the desire of the agency to accommodate programs that
46 don't necessary want to meet all those requirements, and I don't
47 know what the agency's position on that is.

48

1 **CHAIRMAN BOSARGE:** All right, Dr. Porch, and then I will address
2 something that Mara brought up.

3
4 **DR. PORCH:** I just wanted to second Mara's point that, if a unit
5 transmits GPS information to the National Marine Fisheries
6 Service, it's considered a VMS, vessel monitoring system, and
7 that's regardless of whether law enforcement actively monitors
8 it. In this case, there is not any particular reason why law
9 enforcement would actively monitor it. However, they, of
10 course, have access to any data that we collect, and so it
11 doesn't matter what the system is, whether it was a logbook or
12 what, and, I mean, if they want to get it, they can get it.

13
14 **CHAIRMAN BOSARGE:** Thanks, and I think this is an important
15 discussion, and we have to wrap this up, because we're getting
16 over time, but I want to address one thing that I thought was
17 important. If staff will pull up that Tab D, Number 4(b) that
18 has the picture of our logbook on it, and it goes to what John
19 asked Mara and Mara's response.

20
21 It seems like it's been interpreted that what we used to have,
22 our old cellular electronic logbook, is in fact a VMS. Well,
23 but the important part of the VMS definition is this piece that
24 says, you know, a vessel monitoring system means, for the
25 purposes of this sub-part, a satellite or cellular-based system
26 designed to monitor the location and movement of vessels, which
27 that's what our unit does, but here's the key. Using onboard
28 VMS units.

29
30 You have to say what did the regulations say was the definition
31 of a VMS unit, and is our unit a VMS unit, and you look that up,
32 and it references you to another definition, and so,
33 essentially, you have to get down to the definition of an EMTU
34 and an EMTU-C to determine if what we have on the boats right
35 now is going to fall under the category of VMS, and so you have
36 to start with the definition of an EMTU.

37
38 If you scroll down a little, so you can see that device, that's
39 what we have on the boat right now. Tell me if it meets this
40 definition. A type of mobile transmitter unit that is capable
41 of supporting two-way communication, that box, messaging, and
42 electronic forms transmission via satellite or cellular, for an
43 EMTU-C. An EMTU is a transceiver or communications device,
44 including antenna, dedicated message terminal and display, which
45 can support dedicated input device, such as a tablet or
46 keyboard, installed on fishing vessels participating in
47 fisheries with a VMS requirement.

1 I don't see where that covers it. I don't see any of those
2 things in that picture. That was not a box designed for two-way
3 communication, messaging, electronic forms, a dedicated message
4 terminal, display, tablet, keyboard, and it's my understanding
5 that the shrimp fleet in the Gulf of Mexico does not currently
6 have a VMS requirement.

7
8 The South Atlantic rock shrimp fishery does, but we don't.
9 Therefore, we don't meet that definition, and the only
10 difference between an EMTU-C definition and an EMTU is that the
11 EMTU-C transmits via satellite, and, to be approved, the EMTU-C
12 doesn't necessarily have to have all those items actually hooked
13 up to it, the tablet and stuff like that, but it has to be
14 capable of it.

15
16 We don't fall under that definition. We don't currently have a
17 VMS on these boats. Now, it's an alternative in the document to
18 say that we will have to in the future, and so that's why I
19 wanted that other alternative in there, because we do have the
20 wiggle room to write our own specs. We're not a VMS right now.
21 Some people may want to make us that, but we have the ability to
22 write the specs for what we have on the boat right now, which,
23 in my opinion, the way I interpret it, is not a VMS.

24
25 The whole tech specs only applies if you are considered an EMTU
26 or EMTU-C, and so, if we're not, that whole Alternative 2
27 doesn't apply to us in the shrimp fleet, but we'll get there,
28 and so we're out of time. Matt, have you got any more slides?

29
30 **DR. FREEMAN:** I hate to say yes, but, yes, ma'am.

31
32 **CHAIRMAN BOSARGE:** So we have a presentation after this on the
33 LGL P-Sea WindPlot, and it's going to be germane to Admin
34 Budget, because we're going to talk about possibly funding that.
35 How do you want to handle this? Do you want to have that
36 presentation now, or do you want to have the people that are on
37 the line speak during Admin Budget, or what do you want to do?
38 Got it, and so Tom says I shouldn't talk anymore, so that we can
39 get through this. All right. Go ahead, Matt.

40
41 **DR. FREEMAN:** All right, and so, similar to the phrasing of the
42 purpose statement, I will try to keep things brief. This and
43 the following slide are just briefs, or background information,
44 and it's just identifying some of the additional information
45 that we will be working on to provide the council moving
46 forward, in terms of the VMS units and costs associated with
47 them.

48

1 The next slide is also there just as background information, and
2 that is from one of Dr. Gloeckner's presentations, and I believe
3 he provided this to the council in April, and, again, it's just
4 showing an array of satellite versus cellular and the
5 differences in cost.

6
7 This is for additional consideration, if the committee would
8 like to discuss it at this point. If not, it's certainly
9 something that I can bring back up at a later date, but it was
10 requested by NMFS that the council might want to consider some
11 additional options. The first would almost be a no action that
12 would require the installation of a VMS on only a subset, as
13 determined by the Science and Research Director, of vessels with
14 a valid or renewable moratorium permit.

15
16 Option b would expand that to all vessels with a valid or
17 renewable moratorium permit, and then Option c is requiring that
18 on vessels that are shrimping in the Gulf of Mexico, and that
19 last one, in essence -- This is initial wording, and this would
20 be worked on, but the last option is suggesting that it would be
21 something that they could power down when they were shrimping
22 like in the South Atlantic. That was my second-to-last slide,
23 and the last slide just asks if there are questions, and so I
24 will end there, Madam Chair, and deal with any questions that I
25 am able to.

26
27 **CHAIRMAN BOSARGE:** All right. Any questions for Dr. Freeman?
28 Seeing none, go ahead. I will introduce it for you Matt, while
29 you're getting it pulled up. Item IV on the agenda is Update on
30 the P-Sea WindPlot Pilot Program.

31
32 **UPDATE ON THE P-SEA WINDPLOT PILOT PROGRAM**

33
34 **DR. FREEMAN:** The action guide here says that Dr. Gallaway will
35 present an update on a pilot project to collect vessel location
36 data using P-Sea WindPlot and discuss the potential for
37 transmission. The committee should consider the presentation
38 and ask questions. This information does not require any formal
39 committee action, and so I will let admin staff pull up Dr.
40 Gallaway's presentation and turn it over to him to present.

41
42 **DR. NATHAN PUTMAN:** Hi, everyone. This is Dr. Nathan Putman. I
43 will be -- That's my name right underneath Benny's, and so I've
44 been working with Benny on this for a bit, and I will be
45 presenting this on behalf of the two of us and LGL, and Benny
46 wishes he could be here to talk to you about it, but some things
47 have come up, but you're welcome to ask me questions as well,
48 and I've been working on this for at least the past year, every

1 step of the way, and I will go ahead and get started.
2
3 I feel a little bit like I should say, stop me if you've heard
4 this before, but then you would probably just stop me, and so I
5 will go ahead. You're already aware of the current problems
6 with monitoring shrimping effort, and the cELB devices aren't
7 functioning, because of the discontinued 3G service. They
8 record data, but the automatic retrieval is not possible.
9
10 With that in mind, the industry is aware of this, and NMFS has
11 been aware of this all for some time, and the industry came up
12 with the suggestion that using their existing navigational
13 software might be a solution for recording the necessary
14 information. The navigational software that it seems like the
15 vast majority of the offshore fleet uses is called P-Sea
16 WindPlot. It records position information and time, and it
17 seemed like the necessary elements for getting effort data from
18 successive points and measuring distances and times between
19 them, to get speed, so that you could infer whether tows were
20 occurring or not.
21
22 Given the same basic information that the navigational software
23 can record, in comparison to the same information that the cELBs
24 were recording, the idea was could this software be modified to
25 record the lat/longs at ten-minute intervals, just like the
26 cELBs did.
27
28 Southern Shrimp Alliance requested LGL explore this and see if
29 we could come up with a way to get information from the
30 navigational software in a way that would be compatible with the
31 NMFS routines for calculating the shrimping effort.
32
33 Over about a four-month period, we worked with the P-Sea
34 WindPlot developer to modify that software and, again, record
35 the same information as the existing cELB program in a way that
36 would be compatible with the existing software routines. The
37 way we designed this was to be available free of charge to
38 anyone already running P-Sea WindPlot, so that the software
39 could be downloaded by anyone who had P-Sea WindPlot, and it
40 could be run, and it would not be an additional cost to those
41 folks that were running the software.
42
43 Concurrently, we also worked to devise a method to compare
44 effort, that location data, with landings data for each trip and
45 to try to improve matching effort with landings, to get more
46 robust CPUE estimates, and so that was something that has been
47 noted as a bit of a concern by some, in the past at least.
48

1 What we came up with was that, every time P-Sea WindPlot was
2 turned on, an ELB file, a binary file, would be generated, and a
3 hidden folder in the P-Sea WindPlot folder on the computer's C
4 drive, and a latitude and longitude and date/time stamp would be
5 written to that file every ten minutes.

6
7 If, for some reason, the program is turned off, whether it's the
8 computer or just the program, then the program would close that
9 file, but all the previously-written data would be saved, and
10 then, as soon as P-Sea WindPlot is turned back on, a new file
11 would be written, and data is then recorded, and those files can
12 be appended together to give you a continuous indication of
13 effort, as well as easily identify when there are gaps with
14 those date/time stamps being recorded, along with the latitudes
15 and longitudes.

16
17 Then, upon the completion of a trip, what we set up was the
18 program would allow you to insert a memory stick with the ELB
19 program folder on it, and the program would automatically ask to
20 download files from the C drive of the computer to that USB
21 memory stick. Then rename the existing files on the C drive as
22 old effort files, old ELB files, so that, every time a new trip
23 was taken, the program would just download the most recent files
24 that hadn't previously been downloaded, so you would not have
25 redundant data being brought onto the memory stick for
26 retrieval.

27
28 That then allows you to have monitoring, someone to be able to
29 retrieve the data, the captain to have the old data as a
30 potential backup, and a relatively seamless way of moving data
31 from the computer to whoever is, again, monitoring that effort.

32
33 We did some tests with this, and here is results from one of
34 them. The effort data could be mapped and recorded, just like
35 the cELB datasets have been in the past, and we used the
36 existing NMFS routines to calculate tow days, to infer total tow
37 days over the course of the trip, and, in this case, from
38 December 4 to December 18, and to assign the number of tow days
39 per statistical zone and the corresponding depth zone. The map
40 on our right shows tow points in red and transiting points in
41 blue, and it seems to function pretty well.

42
43 As you are all aware, the original ELB and subsequent cELB
44 programs were jointly developed by industry and NMFS. They've
45 been in place for quite a while, collecting shrimping effort
46 data that is necessary to sustainably manage the shrimp fishery.

47
48 There is no individual vessel enforcement dimension to this

1 program, and there hasn't ever been one in the approved
2 historical programs using ELBs or cELBs, and the proposed
3 program, and historical ones, are designed to be a fleet-wide
4 scientific data collection tool and not an individual vessel
5 enforcement tool, and so the aim is not to use it to see --
6 Again, get a fleet-wide perspective on where shrimping is
7 occurring and how that might relate to bycatch of important
8 species, whether that's turtles or red snapper, but it's, again,
9 fleet-wide, and it's not trying to pin any particular issues on
10 individual shrimp boats or captains.

11
12 **CHAIRMAN BOSARGE:** As far as a path forward, it seems like any
13 ELB replacement needs to test and prove efficacy of three major
14 components. You need to have some at-sea testing aboard a
15 shrimp vessel to show device functionality, to ensure that the
16 device is functioning as intended in the geographic location of
17 shrimp grounds, and it needs to function within the constraints
18 imposed by physical configuration of shrimping vessels and gear
19 and under actual operating conditions for vessels which remain
20 offshore for long periods of time.

21
22 Testing of the device for data accuracy and compatibility should
23 include analysis of location data from a replacement device and
24 the 3G cELB data, ideally collected from the same vessel that's
25 been working offshore. Data files from the new device should be
26 input into the current NMFS shrimp algorithm software and then
27 compared to the 3G data collected from the same fishing trip, to
28 ensure that the new device produces accurate data, data that are
29 in a format compatible with current shrimp effort algorithm
30 software, and data that are directly comparable to historic
31 shrimp effort data.

32
33 The third thing would be testing of a transmission mechanism.
34 The device needs to demonstrate it can transmit recorded data
35 when in range of a tower or transmission signal to a designated
36 server in a secure manner.

37
38 A simple approach, using the vessel's navigation system, has now
39 been developed and tested at sea for functionality and shown to
40 provide good effort information produced by an agency-approved
41 and administered cELB system that has been in place for many
42 years, and so what we've shown is that two of the three major
43 components have been completed, and one component, the data
44 transmission step, is remaining to be worked out.

45
46 That next step would be to, one, work out methods to
47 automatically transmit ELB data and paired trip ticket
48 information to a designated NMFS server and then, two, to

1 initiate installation of the system on a representative
2 subsample of the fleet, using a random, stratified approach. On
3 those points, I think that both of these would go well if we
4 were working hand-in-hand with NMFS on this, and, obviously, if
5 we're going to work to automatically transmit data to a
6 designated NMFS server, there should be a NMFS server to do that
7 with, and we have some preliminary ideas sketched out, in terms
8 of how that transmission might be accomplished at a relatively
9 cost-effective way, but, again, these two next steps would need
10 further investment and further time on the part of LGL or
11 someone to wrap that up. That's where we are, and I can take
12 some questions, if there's time or more questions to ask.

13
14 **CHAIRMAN BOSARGE:** All right. Thank you, Dr. Putman. Any
15 questions or feedback for Dr. Putman, since this is going to
16 come up again in our next committee? All right. Will you be on
17 the line for a little while, during our next committee, in case
18 they have questions then, Dr. Putman?

19
20 **DR. PUTMAN:** I sure can be.

21
22 **CHAIRMAN BOSARGE:** Okay, and I think Andy, Mr. Strelcheck, has a
23 question for you.

24
25 **MR. STRELCHECK:** Nathan, thanks for the presentation. I know,
26 back in probably January or February, I had a good conversation
27 with Benny about some of the work you guys were doing, and one
28 of the challenges, at the time, he had mentioned was different
29 computer setups, and maybe the age of computer systems which are
30 running P-Sea WindPlot and logging the data, and I'm curious how
31 that has gone, if you've run into any challenges based on just
32 kind of different types of computers and systems running the
33 software and if that's something you have overcome at this
34 point, with your testing that's gone on so far.

35
36 **DR. PUTNAM:** I mean, one of the nice things, or features, of P-
37 Sea WindPlot is that it runs on essentially any Windows machine,
38 and the various updates to Windows have been tracked and
39 accommodated by the developer of P-Sea WindPlot. The
40 functionality, however, of some of the older versions has
41 largely been maintained.

42
43 What I would say is that the hiccups that we've come across, in
44 terms of installing the software on older versions of Windows
45 have been -- The issue has been that it takes longer and is a
46 little bit -- It requires some knowledge, some specialized
47 knowledge, to install it, and that specialized knowledge is not
48 necessarily being a savvy computer programmer, but knowing to

1 change the names of certain folders or to change some of the
2 default permissions on Windows, in terms of letting software run
3 in certain ways.

4
5 So far, we have not -- I mean, we've tested this out on a couple
6 of boats offshore, and we've done a fair amount of testing on
7 different versions of Windows, ranging from Windows 95 to
8 Windows 7, Windows 8, and Windows 10, and we've gotten it to
9 work on all of those. It's just a -- It takes twice as long, or
10 three-times as long, to install it sometimes than in others.
11 Does that answer your question, Andy?

12
13 **DR. PUTNAM:** Yes. Thanks, Nathan.

14
15 **CHAIRMAN BOSARGE:** All right. Sounds good. I think --

16
17 **DR. PUTNAM:** Marine electronics guys who help with the
18 navigational software have all been quite capable of doing it,
19 in addition to the team here at LGL.

20
21 **CHAIRMAN BOSARGE:** Thank you, Dr. Putnam. You'll be on the
22 line, if we have some questions a little bit later on, and so I
23 think that's where we're going to stop. Anything else, we'll
24 pick up during Full Council. Thank you for the extra time for
25 the all-important Shrimp Committee.

26
27 (Whereupon, the meeting adjourned on June 21, 2021.)

28
29 - - -