## U.S. DEPARTMENT OF COMMERCE



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

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## HIGHLY MIGRATORY SPECIES ADVISORY PANEL MEETING

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& \text { WEDNESDAY } \\
& \text { MAY 10, } 2023 \\
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The Panel met at the DoubleTree by Hilton Silver Spring, 8777 Georgia Avenue, Silver Spring, Maryland, at 9:00 a.m. EDT, Bennett Brooks, facilitating.

## MEMBERS PRESENT

Academic Sector:
DEMIAN CHAPMAN, Mote Marine Lab
JEFF KNEEBONE, New England Aquarium
ZACH WHITENER, Gulf of Maine Research Institute
Commercial Sector:
CHARLIE BERGMANN
STEVEN GETTO, American Bluefin Tuna Association
JAMES HULL, Hull Seafood
MATT HUTH, Fresh Catch Seafood
AL MERCIER
CHINH NGUYEN, F/V St. Joseph \& Peter
TIM PICKETT, Lindgren-Pitman, Inc.
GEORGE PURMONT
DAVID SCHALIT, American Bluefin Tuna Association SCOTT VAETH

ALAN WEISS, Blue Water Fishing Tackle Co.
Environmental Sector:
JOHN BOHORQUEZ, The Ocean Foundation
RAIMUNDO ESPINOZA, Concervación ConCiencia Inc.
SONJA FORDHAM, Shark Advocates International
JACKSON MARTINEZ, Environmental Defense Fund
Recreational Sector:
PETER CHAIBONGSAI, The Billfish Foundation
WILLY GOLDSMITH, American Saltwater Guides Association
MARTHA GUYAS, American Sportfishing Association
EVAN HIPSLEY
BOB HUMPHREY, Sport-Ventures Charters and Casco Bay Bluefin Bonanza
ERIC JACOBSEN
CHAD McINTYRE
ROBERT NAVARRO, Fly Zone Fishing
MICHAEL PIERDINOCK, CPF Charters "Perseverance"; Recreational Fishing Alliance
BRUCE POHLOT, International Game Fish Association
MARK SAMPSON, Ocean City Charterboat Captains Association
RICK WEBER, South Jersey Marina

Council Representatives:
TOM FRAZER, Gulf of Mexico Fishery Management Council
DEWEY HEMILRIGHT, Mid-Atlantic Fishery Management Council
MARCOS HANKE, Caribbean Fishery Management Council

State Representatives:
JASON ADRIANCE, Louisiana Department of Wildlife and Fisheries
AMY DUKES, South Carolina Department of Natural Resources
YAMITZA RODRIGUEZ FERRER, Puerto Rico DNER/Recreational and Sport Fisheries Division

GREG HINKS, New Jersey Department of Environmental Protection
CHRISTINE KITTLE, Florida Fish and Wildlife Conservation Commission
GREG SKOMAL, Massachusetts Marine Fisheries PERRY TRIAL, Texas Parks and Wildlife Department ABBY VAUGHN, Mississippi State University ANGEL WILLEY, Maryland Department of Natural Resources

ICCAT Advisory Committee:
WALT GOLET, University of Maine School of Marine Sciences and Gulf of Maine Research Institute

## NOAA NMFS STAFF PRESENT

RANDY BLANKINSHIP, Division Chief, Highly Migratory Species Management Division
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(9:00 a.m.)

MR. BROOKS: Good morning, everybody. Welcome back to Day 2. Thank you for yesterday's conversation. I thought it was a really good set of conversations yesterday. For those of you that were you not here, we covered the sort of usual HMS updates that start these meetings.

We had an update from ICCAT, updates on climate vulnerability assessments. We had one of Brad's briefings on bluefin tuna. Looking back at 2022, thinking ahead for this year. We heard from Sam Rauch. I had a good chance for a little back and forth with him. And then had a long conversation with Brian Hooker from BOEM. At the end of the day on offshore whaling, which is always an important topic here.

So before I talk about the game plan for the AP meeting today, I think I'm going to hand it off to you, Randy, for some updates you might have.

MR. BLANKENSHIP: Good morning, everybody.
It's good to see you again this morning, and for
others that have joined us in the room as well. I wanted to just give a couple of quick announcements. One is related to the ANPR for e-reporting, which is a topic that we will be talking about tomorrow, that, that ANPR is filing in the Federal Register today. And so you will be getting an email on the HMS email list coming out later today about that. So just a heads up, the context about what that will contain. Additionally, in the vein of my overview presentation where I have several things that I mention that are about like there's lots of things happening outside of HMS that we give you heads up about, one of those things that came out yesterday that $I$ would have put on that list had it come out in time, I wanted to give you at least a quick heads up about. This is related to Rice's whale in the northwest Gulf of Mexico. And so it's relevant to any recreational, commercial interest in that area.

The Gulf of Mexico Fishery Management
Council put out an email yesterday that some of you may have seen if you're on their listserv that announced that they have a petition for a speed limit
in the northwestern Gulf of Mexico for Rice's whale. And they have a public comment period open right now related to that. So $I$ wanted to give a heads up. That's a Gulf of Mexico Fishery Management Council initiative, as well as the Southeast Regional Office as well. So just for your awareness about that.

MR. BROOKS: Great. Thanks, Randy. So I just want to briefly review the game plan for today. So we'll --

MR. BLANKENSHIP: Sorry, a correction. I think I said Northwest Gulf of Mexico. I Meant Northeast Gulf of Mexico if I said it incorrectly.

MR. BROOKS: That is right. Okay. So game plan for today, we will -- We'll start today off with a couple of conversations that are shark-focused. We'll talk about having Amendment 16 , scoping conversation around shark quotas and management. We'll hear about CITES-approved shark proposals at their November 2022 conference of parties.

After that, we will shift to Amendment 15 and be spending a lot of time on that important topic. We'll break into two chunks. We'll have a
conversation first around the spatial management aspects that are included in that -- in that amendment. We'll have that be pretty much just presentation before lunch just so folks really understand what's in it. There's a lot in there. It's pretty complicated and dense. And then we'll also take clarifying questions if we can before lunch. And if we need to push that into post-lunch, we'll do that too. And then open up for a conversation and get your feedback and any thoughts you have as we start diving into that topic.

The second chunk will be to talk about electronic monitoring aspects in A15. And again, that will be a presentation, followed up by discussion. And then we'll finish up the day with Deepwater Horizon restoration update.

We will take morning and afternoon breaks as always. Today, lunch will be from 12:30 to 2:00. And again, if you've got phone calls you need to take, that's where we ask you to kind of steer those calls, so we can have your focus and attention during the meeting itself. For any members of the public who are
here that will want to comment, we will have public comment at 5 o'clock today. And we'll finish up the AP meeting by 5:30.

But there is a special addition conversation today from 6:00 to 7:00 p.m. We will have an Amendment 15 informal $Q$ and $A$. Let me just emphasize, that's not an AP meeting. Of course, we'd love the AP members to be here if that is of interest to you. But it's really centered on providing an opportunity for non-AP members to have sort of an initial bite at 8:15 and ask questions, understand it. And so, you know, we'll invite them in. We'll sort of change the space to just sort of a more open conversation. So again, encourage anyone in the room who's not an AP member or on the phone and interested in this, please join in. And for AP members, if you know folks who might be interested, do let them know as well.

And then just, $I$ guess a reminder on a few key ground rules for anyone, you know, who wasn't on the call yesterday, just the usual. Contribute so we hear from you, share time so we can hear from
everyone, ask questions of each other, of HMS so you understand what the issues are, integrate conversations, perspective you're hearing, and engage respectfully. I will run the queue again to sort of balance a few things in the room online, across the sectors bringing in quieter voices. So bear with me as $I$ do that. Correct me if $I$ don't seem to be doing it right.

And just a reminder, discussion is around the table -- the virtual table with AP members, except for when it is public comment.

And we will continue to record these meetings, so please just be aware of that. Any questions about today? Any reflections from yesterday? Anything anyone wants to talk about before we jump into the conversations? Anybody online have anything? I'm checking to see. I don't see any hands up. Okay, then let's push ahead. We're way ahead of schedule, which is good because I think we'll use and need every minute we have today. So let's hand it off to Guy to talk to us about Amendment 16.

MR. DUBECK: All right. Thanks, Bennett.

Yeah, so we're here to talk about sharks with scoping, Amendment 16 . So let's get it started. Here's kind of the outline of the presentation. We'll go through some background first and then go into the different scoping options in the document, and then talk about the request for comments.

So for background, I also just want to point this out. It's kind of something we started with Amendment 14. We use a lot of acronyms and I just want to put this slide out there and kind of remind people what we're really talking about and some of the more important ones like the ABC or acceptable biological catch. ACL -annual catch limit, OFL overfishing limit. And then total allowable catch. So I just want to remind people of some of the acronyms.

So yeah, so we finalized Amendment 14 earlier this year. In here, we have preferred management options. The first one was to create a tiered ABC control rule. In Amendment 14, we did say we may phase in the ABC control rule for some stocks in the future. The other one is we would allow
consideration of phase-in ABC control rules of any modifications, whether we're going up and down.

Amendment 14, we also decided we're going to actively manage all sectors, ACL's. And then establish ACL Breach Management Group without commercial quota linkages. We're also going to allow carryover of underharvest of commercial quotas under certain conditions. And then the last one, we're going to compare the three year average of fishing mortality estimates to the overfishing limit to determine the overfishing status. So a lot of this, again, there was the framework actions, operational changes. And the result of this will be considered in Amendment 16 and in any future rulemakings.

The other background thing that we've considered with Amendment 14 is our final SHARE document, which came out in March. This kind of was a complete review of the shark fishery, looking at the commercial, recreational, shark depredation, and other factors affecting the fishery. Some of the potential ways forward we can identify were to look at the vessel permit structure. Maybe it's time to make some
changes to that.
Another big one that a lot of people have been requesting on is for us to look at commercial retention limits. Then we looked at maybe the regional and subregional quotas should be revised and also the recreational size limit and retention limits. But beyond those things, one of the biggest things we could identify was that we need to improve communication and outreach within and outside the shark fishery. And also communicate best practices for commercial/recreational fisherman to mitigate depredation events.

So we kind of looked at those two actions of background. And on top of the other actions that are affecting our fisheries between CITES and Shark Fin Elimination Act, we kind of put all that together and we kind of came up with the scoping documents for us to consider moving forward.

So Amendment 16 came out, you know, just released on Friday. So pretty much the objectives of this action is kind of consistent with 14 and scientific advice and establish the ABC's and ACL's
for non-prohibited shark species. We want to optimize the ability of the commercial and recreational shark fisheries that harvest the quotas. But also we want to build in more management flexibility to kind of be reactive to what's going on in the fishery and make changes pretty quickly.

So one of the big things we got from Amendment 14 was, you know, we decided to do the tiered ABC control rule and a lot of comments were like oh, this is great, but where do our stocks fall within this? At that time, we weren't ready to release where it's going to be, now here we go is kind of where we're going to place all our stocks within the Tier Control Rule.

So first one is Tier 1, so we've got the data-rich stock assessments. We placed the Blacktip in the Atlantic Region and the Smoothhound Atlantic Region stocks into Tier 1. Tier 2 are more data moderate stock assessment. So both of the stocks for Atlantic Sharpnose, the Gulf of Mexico Blacktip, the Finetooth, and Gulf of Mexico were in Tier 2.

Currently right now, we don't have any stocks in our

Tier 3, which is our data-limited stocks. The last one, Tier 4, there's no stock assessment, unfortunately the majority of our stocks are in this tier for right now.

The other ones we have identified were the ones under Rebuilding Plan, so those are the Blacknose Atlantic, Sandbar, and then currently right now on the Rebuilding Plan is the Scalloped hammerhead stock. And then we have ICCAT Assessed and Pelagic Shark stocks. As you can see kind of the red asterisk there, I just want to point out you're currently working on Hammerhead -- the Hammerhead assessment with SEDAR 77. So once that's complete, we'll probably more likely be moving the stocks through the different tiers based on the results of that. But also just want to make that in general. So once we get more stock-sensitive information, we'll making changes to the tiers and where the -- of where the placement of the sharks within the tier process.

So I also put this slide out here, this kind of -- for Amendment 14, we kind of created the ACL framework. I wanted to remind everyone this is
what it looks like because we'll be referencing this quite often. Some of the examples in the presentation. So you have the OFL, the ABC control limit, control to determine the ABC. Then we had the management uncertainty. Again, that's kind of the non-HMS mortality and the research mortality. And then we have the overall ACL. And then we'll have that split between the commercial and recreational sectors that we'll be managing actively.

So in this document, we have a lot of options, but $I$ kind of slimmed it down here just to this slide here for our presentation. So the first one is kind of determining the number of years appropriate for data. So going back to the slide here where we're talking about the split between the different sector ACL's. In the past, we've always used all the catch data to determine that split percentage. So how much the recreational sector would get and how much the commercial sector would get.

Some other options we threw in the scoping document was like well, what if we looked at more recent catch history to kind of get a better sense of
what the fishery looks like now and potentially in the near future, so looking at the past five to ten years. We also look at eventually if we want to do more of a flexible one and every so many years, reevaluate it. So those are kind of the options we have for splitting that ACL.

The other one is looking at the implementation of the HMS Risk Policy for Tier 1 and Tier 2 stocks. So historically, we have used it different in the past. But mostly, we've been using 70 percent risk policy for the majority of our shark stocks. If we have Tier 1 assessments, you know, data-rich, have a lot of information, you know, the concern is really low. Maybe we should consider using different HMS risk policy, so looking at a 70, 60, or 50 percent risk policy. Something similar to the Tier 2 stock. So we have some options in the document for us to consider for those different tiers.

So let's get into examples. So another big comment from Amendment 14 was like okay, we put all this framework action out here and all the thoughts. We'll how does it impact myself and my
number, what the quota is going to look like, and how could it impact us? So right now, we decided to do examples of what the ABCs and resulting ACLs would be for a stock for each one of the tier -- underneath each one of the tiers.

The first one is the Atlantic Blacktip. So the Southeast Science Center calculated what the OFL was for this stock using all the catch data we have. And we kind of used the 70 percent risk policy for this example here, but also in the document we have different percentages. As you see, we have the OFL. And then after the risk policy and ABC control rule, we determine what the $A B C$ would be for the Atlantic Stock. We took off, you know, management buffer mortality to calculate what the ACL would be. And then from there, based on using all the catch data that was in the assessment, we determined that 58 percent of the ACL there will go towards the recreational sector. So that, recreational sector quota would get roughly 50,000 sharks. Currently based on the past couple years of landings, the recreational sector would be harvesting
about 89 percent of that number.
And then moving to the commercial sector, once we took the discards off, we had commercial quota. From there, the 136 metric tons based on recent landings. The past couple years, the commercial fishery would harvest about 38 percent of that number.

So moving on to Blacktips in the Gulf. So there's not typos in this. These numbers are right. They might fluctuate based on what the different mortalities would be. But this is the largest quota we would ever manage for sharks right now.

So for the Gulf of Mexico Blacktip sharks, we would phase in the ABC control rule for, as I mentioned, for some stocks. For this example, we used the OFL equals the ABC equals TAC from the assessment. And again, in this example, we used the $\mathbf{7 0}$ percent risk policy where we would have a potential ACL of 9,700 metric tons. Once we used all the information and split the ACL, we'd give the recreational sector about 470,000 sharks. And right now, based on current landings, harvest -- they would harvest about 10
percent of that number.
Moving to the commercial fishery, that commercial quota of potentially 7,500 metric tons or 16 million pounds. Currently right now, the commercial fishery have only harvested about 2 percent of that. But this again is such large numbers right now.

So as I mentioned, there is no Tier 3 example for stock. So we're going to move on the Tier 4. So for Tier 4, again, these are stocks that haven't been assessed. So in Amendment 14, we decided we're going to use the scalars or the mean reference period of catch to determine the OFL proxy to calculate the ABC. The scalars or you know, proxies as needed for the Tier 4 stocks would be under two categories, whether they're productivity attributes or accessibility of fishing pressure attributes. So productivity attributes we're looking at; age maturity, maximum age, reproductive cycle and number of pups.

For accessibility of fishing pressure, we're looking at post-release mortality rates,
percentage of landings within the management group. So an example is the aggregate large coastal. Bull sharks are within that, so we're looking at how much of the landings of that Bull sharks are accounted for within that. And then the other one is the overlap of the range, the EFH range in the commercial fishery. And I show a figure of that a little later and I'll explain that in more detail.

So again, continuing with the Tier 4
example. Looking at the productivity attributes, for age and mature, we thought based on the information we have, the scale would be moderate. Maximum age would be again a moderate scale. However, the reproductive cycle and number of pups would be more of the lower scale for productivity.

Accessibility to fishing pressure. So the post-release mortality in the commercial fishery, we determined that was more of a lower scale. The recreational post-release mortality would be about a moderate scale. Percentage of commercial landings within the aggregate large coastal, the Bull sharks account for about 30 percent of that. And we felt
that scale would be in the moderate level. The recreational catch is more of a low scale. And then the EFH -- the overlap of the EFH and commercial fishery, we felt was more in the moderate scale. So what we mean by this map is -- what we did was we kind of looked at the footprint of the commercial bottom longline fishery and overlaid that with the Bull shark EFH so that, you know, we have the commercial fishery in green and then the EFH in blue. And then any overlap is in yellow in this figure. And that accounts for about 60 percent. That overlap accounts for about 60 percent of the EFH area.

So based on this information in the document, we just came up with a scalar of 2 for the Bull shark examples. So what we did was we determined the mean reference period of catch for Bull sharks and multiply that by scalar of 2 to determine what the AFL proxy would be, which would be about 16,000 sharks. We used all the information we had for this. And then once we took the ABC control rule -- the 70 percent risk policy, excuse me. And then we got the ABC. And then we took the management buffer off the top and we
had an ACL of about 10,000 sharks.
Using again, all the information to split the ACL into the different sectors, based on the recreational harvest, about 4,800 sharks. The recreational fishery is harvesting about 37 percent of that. And the commercial fishery potential quota could be 136 metric tons. And overall, the commercial fisherman have been harvesting about 54 percent of that. I also want to make note that this is for both regions. It's not just Gulf or Atlantic, this is combined because it hasn't been assessed from different stocks. So this is combined for Bull sharks.

So moving on to the rebuilding plan. So again, this is -- Sandbar sharks is the one thing we've been hearing a lot about for us to reevaluate this quota and to look at it and potentially allow fishing opportunities for other people outside of the research fishery. So for this example here, we use again the 70 percent risk policy. We had the OFL equals ABC equals the TAC and assessment. Once we determined the management buffer and dead discard
mortalities, we kind of figured out what the recreational and commercial ACL would be.

I just want to point out even though there is a recreational sector ACL, for Sandbar sharks has been prohibited since 2008. Again, these are landings that have been reported, either misidentified or illegal landings that we can't account for in the recreational sector. And then the commercial quota -and right now, that commercial quota is only being harvested in the shark research fishery. And they're harvesting about 50 percent of that right now.

So moving onto the pelagic sharks. So one thing we said in Amendment 14 is that, you know, we're going to follow kind of the advice from ICCAT. And if ICCAT does not give us advice on certain shark stocks, we'll come up with different options on how to manage these stocks.

In our document, we had a couple options for the Blue sharks. Again, we kind of used Blue sharks in this example here. The first one was kind of either maintain the current quota and management group for Blue sharks. And right now, you're talking
about a 237 metric ton quota that's rarely harvested for that.

The other one would be to kind of determine the Blue shark ACL based on reference period of years. So example is something that was done with the mako assessment looking at certain years. And then basing those years of catch to kind of determine what a new quota could be. That's something we do for Blue sharks where we can look at the reference period of catch and determine what a new ACL would be for that stock.

The other one, the last one here is to kind of implement the ICCAT recommended quota for Blue sharks. Well, ICCAT has not recommended a quota for Blue sharks. So under this option, there would be a no quota for Blue sharks and we would remove a commercial quota for that species. But also, I just want to point out that ICCAT is assessing Blue sharks this coming year. So some of the information that comes out of that, we'll built into Amendment 16.

So after we talk about all the different quotas for different shark stocks and once we kind of
figure all of those things out, we felt that it's time to start looking at different options in the fishery.

So the first one we have here is the management group structure. So a lot of these management groups were established in the nineties and they're based on, you know, what gear was used to target those species? And over time, we've kind of just been pulling different species out of these management groups based on the stock assessment and the information we have.

So maybe it's time for us to kind of create new management groups. So one of the options is to kind of create individual ones based on the assessed and combine all the unassessed ones together. What do we do then for the unassessed ones, do we want to create region-specific quotas for those because each region's fish is quite different.

Another option is to kind of look at what species are caught together. And then maybe create certain management groups for those species caught together. Examples, we've been hearing a lot about, you know, the fisherman in Louisiana are catching a lot of Bulls and Spinners and Blacktips. So we have a

Blacktip quota that can be 16 million pounds, then maybe create a Bull/Spinner management group quota for fisherman that are catching all of them together. So just some options we have out there for people to consider.

Speaking of kind of in the regions, another thing we haven't looked at in a long time was the Atlantic and Gulf of Mexico regional split. So again, in the past when we had these splits between the regions based on catch history. And we know that, you know, the fishery has changed so much in the past handful of years, that maybe it's time for us to reevaluate that split between the two regions. Maybe more recent, in the past five to ten years or do we remove regional splits? Like in the example of the Bull sharks where we have a Bull shark quota that's for the Gulf and the Atlantic. And 136 metric tons would be caught and whoever catches that.

Another one is looking at the Atlantic Blacknose shark management boundary. So right now, any fisherman north of 34 degrees or Wilmington, North Carolina can't harvest Blacknose sharks. And we know
that sharks are migrating more north than they have in the past. We've been hearing a lot of information from North Carolina fisherman that they're catching a lot, but they can't retain them. So maybe it's time for us to kind of remove that boundary. And also since we are removing quota linkages -- and that was another reason why we put that in -- maybe it's time for us to reevaluate and remove that boundary.

In the Gulf of Mexico, we have subregional quotas. And that's something that we kind of put in with Amendment 6 based on the different fishing habits of, you know, fisherman in the Western Gulf and the Eastern Gulf. So maybe it's time for us to reevaluate this split. You know, we've established Amendment 6 in 2015. So maybe we kind of look at the catch history from that point and reevaluate that split at a different quota or maybe we remove the split.

I mean if we're talking about potentially a Gulf Blacktip quota of 16 million pounds, why split it? I mean, no one's right now going to catch that many sharks. Or maybe remove it for other species too like the Hammerheads. I mean, no one's catching the

Hammerheads for a variety of reasons. So maybe why have that split? Or maybe create a flexible subregional split for that.

The other one in this kind of group here falls around the Caribbean. So we've been hearing a lot from Marcos about how the shark fishery in the Caribbean is very different and is very different from what happens in the Atlantic and the Gulf. So maybe we should start managing that fishery very differently too. Because right now, any of the landings from that region are counted towards from the Gulf of Mexico quota. So maybe we should create a special - I mean not special, but a separate quota for those species that are authorized to be landing and with some sort of buffer to kind of get more information and gather information of what's really going on down in that area.

So that was all those options. So now we're looking at our EFP and shark research fishery. Again, those things haven't been looked at or revised in quite a long time. You know, right know with -- if we're going to be -- if you go back and remember the

ACL framework or the management buffer, we're taking off the research mortality already, so why have a separate quota of EFP and research and then counting for the mortality twice?

So one of the options is to revise the quotas. Maybe create EFP quotas for just prohibited species. And also for the research fishery, maybe change it based on what's currently being harvested by the research participants. Or allow transferability of that underutilized sandbar research quota to the commercial and/or recreational fisherman. You know, if we've gotten very low interest in the research fishery -- this year, we only three applicants -three permit holders -- maybe we should allow retention outside the research fishery to fully utilize all the quotas.

And the last one here is kind of revise research fishery. We feel the research fishery is so vital for us moving forward with data for stock assessments that we don't want to get rid of it. But we maybe need to kind of change our goals and objectives of this. Maybe we change it where we
remove bycatch restrictions or reduce the mandatory coverage rates in the research fishery or allow retention of prohibited species to gather more information on those, so eventually we could do a stock assessment on them. So again, we don't want to remove the research fishery. But I think at this time and stage, we maybe need to revise how we look at it and how it's run.

So after we kind of change quotas and looking at different management groups, the other biggest thing is looking at the commercial retention limits. As we kind of pointed out in the SHARE document, that some of the things that we can identify need to be updated that haven't been changed in a long time. So based on some of the numbers I threw out here, I mean maybe we should revise those limits or maybe not have a limit for some of our shark stocks.

I mean we've got a 16 million pound Blacktip quota, why have a limit when the limits are outside factors are pretty much going to be the limits they're going to market and other things beyond the fishery that are kind of limiting them right now. So
maybe we should increase retention limits so fisherman can kind of maximize their trips. Or an option here is to remove commercial retention limits for directed permit holders. Like I said, the biggest driver in the fishery have been the markets. I mean the markets are driving and the dealers are telling the fisherman what they can take in a week or what they should be able to retain. So why for some of our stocks, be another limiting factor on that with some retention limits?

And then moving on to recreational fisheries. So again, with the SHARE document, we can identify some changes need to be made for this. You know, we have 54 inches for majority of our shark stocks. Again, that was something that was put in place quite a few years ago and it's based on the size and maturity of Sandbar sharks, which have been prohibited in recreational fishery for a number of years. So maybe it's time for us to kind of look at the minimum size limits for some of our shark stocks. Like look at the size maturity and appropriately put those species.

Or change bag limits too, because if we have very healthy stocks, maybe we can increase bag limits for them. Or the other one is kind of remove some of those restrictions. Like I said, you know, we have a healthy Blacktip stocks in the Atlantic Gulf. Maybe we can remove bag limits for some of those species or size limits.

So just some options we're kind of throwing out very broadly of everything for Amendment 16. So the biggest thing, I think for everyone here is kind of the comments we need for how do we want to tailor Amendment 16 moving forward. We are going to be having public hearings in-person. We're having two webinars at the beginning and the end of the comment period. And then we're going to go to Louisiana, Florid and Manteo in-person public hearings this time. So please encourage and spread the word to people in the area to kind of come to those public hearings.

So the timeline here is, you know we have comment period through August 18th. Then we're going to review public comments. And then in the coming year, 2024, hoping to put a proposed rule out for

Amendment 16. However, we're going to wait for the completion of SEDAR-77 for Hammerhead sharks to make sure we can build that into Amendment 16 before moving forward. And that's everything $I$ have. So now we'll gladly take any public comments or questions you have.

MR. BROOKS: Great. So we have plenty of time to talk about this, almost an hour. What I'd like to do is just let's start with some -- if we can just start with some clarifying questions just so we make sure folks understand what's happened. And then we'll -- and then we'll, you know, open it up to, you know, comments, reactions, thoughts. So clarifying questions first.

I've got Sonja in the back. Sonja, do you want to come up to the table? I'm going to just work may way around again. Just clarifying questions and then we'll dive into more specifics.

MS. FORDHAM: I want to save my diatribe. Sonja Fordham, Shark Advocates International. My clarifying question is just what you said about Blue sharks and ICCAT and maybe we could avoid some concern. But you said ICCAT hasn't put forward a
quota or something to that effect. I think you mean ICCAT hasn't recommended an allocation or specific quota for the U.S. So not to give the impression that ICCAT doesn't have a limit, particularly on the EU for Blue sharks.

MR. DUBECK: Right. There was no U.S. limit for Blue sharks. But again -- Again, it's being assessed this coming year. So then, some of those things could change.

MR. BROOKS: I'm never calling on Peter again. Rick was after Sonja.

MR. WEBER: That was for me. And this truly is clarifying. Guy, would you walk me through OFL versus ABC and what the gap is between them please?

MR. DUBECK: Sure. Let me go back to -use the sandbar example. Actually, here I'll go to the -- There we go. So again, the scientific uncertainty. So again, it's something we put in Amendment 14 where we've used the Rolsten approach to kind of figure out what that scientific certainty would be for our shark stocks. So it's something we
haven't been able to calculate in the past.
So based on the assessment- Blacktip here, we have the OFL, which is the overfishing limit, so that's the top one. We have the risk policy of 70 percent. That's more risk policy of like potentially causing the stock to be overfished or you know, causing it to not be healthy anymore so that scientist amount is we put that kind of amount, so 70 percent. So we're taking the OFL and dividing that by 70 percent to get the $A B C$, so simple biological catch.

The management buffer are those things kind of non-HMS mortality and resource mortality are kind of in that management buffer. Again, those things are, you know, non-HMS mortality, things outside our control. And then research mortality is things we don't want to limit for research purposes. So that's taken off the top.

And what is left is the ACL. And then from there, we've kind of used in the past -- using all the available catch data in the commercial and recreational fisheries to kind of determine what that split is -- historical split. And that's where you've
got the different percentages between the two sectors. And then the commercial sector, we have the commercial sector $A C L$, but then once you remove the commercial discards, what is left is commercial quota. Did that help?

MR. WEBER: Yeah, it was really -- I was up at the top between OFL and ABC and that is a buffer you're leaving yourself for uncertainty. I suppose without making a statement, but clarifying. If species had different levels of uncertainty, would it be appropriate to apply different risk policies to different species based on their uncertainty?

MR. DUBECK: Yeah. So it's one of the things we put in the document is that, you know, the Blacktip shark in the Atlantic assessment, the most recent one. And that's kind of our gold standard right now. So we want all of them to be like that. So then as you said in the different tier process, so all the ones in Tier 1, scientific uncertainty would be much smaller because we have all the data you can probably think of for an assessment. And as you go down the tier process, you're missing something. So
then those risk policies probably should be more conservative potentially. So again, we threw in the examples in the document to kind of give a sense of what it could potentially be, but overall it could be from a stock by stock basis within the tiers too.

MR. BROOKS: Thanks, Bob for clarifying the question.

MR. HOOKER: You may have just answered this one. I'm going to ask it anyway. On your Page 22 management group structure, are those options intended to be mutually exclusive or could they be applied different options in different areas or different options to different stocks in the same area?

MR. DUBECK: That's a possibility. Again, we are just kind of very broad with these options. But yeah, we could have slightly different in what's in the Atlantic compared to the Gulf. Or it could be based on stock by stock basis potentially, depending on how uncertain the data is too. And what the quotas look like too because if we're talking about grouping a bunch of species together, then the quota might be
more than a limiting factor. It could be the smallest amount.

MR. BROOKS: Jimmy.
MR. HULL: Yeah, thank you. I'll have a lot of clarifying questions, $I$ think as we go along. But going back to the earlier slide, Slide 5, the last bullet point. Compare a three year average of fishing mortality estimates to the overfishing limit to determine the overfishing status. Could you kind of explain that to me better?

MR. DUBECK: Sure. It's something we put in Amendment 14. So what we're doing is kind of looking at all the fishing mortalities. We're looking at the recreational mortality, commercial mortality, dead discards and kind or comparing that to what the ACL is. And if it's not been exceeded, we could potentially change the stock status from overfishing to occurring or not occurring. But overfished status is something we're not going to change. That would take an assessment to do.

But there were fishing statuses, similar what the councils do is kind of change between
overfishing is occurring or not occurring based on the fishing mortality. So an example is, I know we chatted last night, like the Blacknose in the Atlantic. Right? Overfished with other fishing occurring. But since the mortality has stayed under the quota, we could potentially change that status to overfishing is not occurring.

MR. HULL: Got it, thank you.
MR. BROOKS: Marcos.
MR. HANKE: Just to make sure on the management group, I understood your options. That's applicable to the Caribbean too or we have just the slide after that, that we have to give feedback too?

MR. DUBECK: It kind of depends because I know the species that are authorized to retain in the Caribbean is different than what's in the Atlantic and Gulf. So it could be the same. It could be very different because I know as I mentioned, the way the fishery operates in the Atlantic, Gulf, and the Caribbean is all three different. So it could be mixed, different. So we're just kind of throwing it out there.

MR. BROOKS: Thanks. I've got a couple more clarifying questions on the room and then I'll go online. Dewey.

MR. HEMILRIGHT: Yeah. Can you go to Slide 13, I believe it is that had the Blacktip shark in the Atlantic and where it had the percentage broke down by -- Yeah. How did these percentages, particularly to the recreational sector get arrived at 58 percent of the ACL? And was that based on MRIP? And if so, what was the PSE's for that number? Because to me, that seems like an awful high number. And what year was chosen to arrive at them numbers? So I guess it's kind of a three-part prong of how you arrived at 58 percent of the ACL for the recreational industry in the Atlantic. Thank you.

MR. DUBECK: Thanks, Dewey. Yeah. So again, this is all information from this most recent stock assessment. So I believe that stock had date going to the 1980s to present -- to, I think, 2016 or something like that or 17 . So that was using all that data over time to kind of figure out what that split would be. And again, this is just using all that
data. As I mentioned, some of the other options could be just looking at the more recent years.

And yeah, so for recreational data, it was using MRIP. And I don't know what the PSEs are off the top of my head. But again, it was all the data that was from the assessment, reviewed by the stock scientist and the data review shop. And if there was any issues, they figured that out and used that -those numbers. So it's not like we are just using the most recent numbers that came out this year or last year. These were the numbers from the assessment that have been reviewed by everybody.

MR. BROOKS: Thanks. Let's go around the corner here. Jeff.

MR. KNEEBONE: Awesome. Thanks, Guy. That was a lot of information. Clarifying question on Page 29 with the Bull shark example. I think you passed it. It's the map of the EFH overlap with the longline footprint. Great. So can you explain a little bit more about how you got to the longline footprint? Yeah, let's start there. Thanks.

MR. DUBECK: So, yeah. So it's kind of
looking at majority of where, I think it was like 95 percent of the commercial fishery operates. And that's where kind of the green areas are. So the majority of the shark fishery actually operates off of North Carolina, a majority in Florida, and then Louisiana and Alabama areas. That's where kind of the green areas are. And that's from the bottom longline shark fishery footprint. Yeah. I know there's other areas with gillnets and longline, but we are just -Since Bull sharks are mostly caught with bottom longline, we use that kind of footprint.

MR. KNEEBONE: Okay. It's interesting. It seems like some of the areas where there's bottom longline fishing occurring is outside of the habitat range of the Bull shark. In the Gulf of Mexico, I think those -- some of those areas are over 7,000 feet deep. It's curious. It seems like it's a colonel distribution because you have a lot of fishing activity occurring on land as well. So I'm just curious to know more about how that -- how that footprint is really derived because for this example, it seems a bit larger than $I$ would expect. So we can
follow up later, but I just wanted to make that point. Thank you.

MR. BROOKS: Thanks. David, did I hop over you?

MR. SCHALIT: Yeah. Just a clarification also regarding Bull sharks. You stated that the -that national fisheries assessment was for both the Gulf and the Atlantic. And my question is -- Is that correct or not?

MR. DUBECK: So for these numbers here. This is what the retention of Bull sharks in the Atlantic and Gulf could be. It hasn't been assessed. That's why it's in Tier 4. However, you know, after SEDAR-77 Hammerheads, that's on the list to potentially be next for assessments.

MR. SCHALIT: Thank you.
MR. BROOKS: Thanks. Eric.
MR. JACOBSON: Thank you. Question on Slide 23 if you don't mind. When you create a regional or subregional quotas, is that because there's distinct subpopulations of those species within that area or is it to distribute access?

MR. DUBECK: So a lot of the information for our different stocks is based on the different genetic differences. So you know, the Gulf has different stocks and the Atlantic has others. Some of them have not been assessed by different regions. So that's why sometimes when I was mentioning having kind of no regions and have one large quota like the Bull sharks for the Gulf and the Atlantic. It hasn't been assessed that way. They're going to give information to what the separate stocks can handle.

MR. JACOBSON: And for management purposes too because they have Hammerhead sharks.

MR. DUBECK: Yes. Yeah. Go ahead. Sorry. I'm not going to read her mind.

MS. BREWSTER-GEISZ: Sorry. You're usually so good at that. So we split between regions, both because of stock assessment results, like Blacktip. We have a stock in the Atlantic and we have a stock in the Gulf. But then we also split from management purposes, so Hammerhead sharks is split between the Atlantic and the Gulf right now purely for management purposes and not because there's genetic --
although the stock assessment may change all that.
MR. DUBECK: Thank you.
MR. BROOKS: Thanks. Willy.
MR. GOLDSMITH: Oh, no. Brutal.
PARTICIPANT: Make it a good one. You're done.

MR. GOLDSMITH: That's it. No more questions for me. Thank you, Gu for a comprehensive presentation as always. The question on Slide 11 and it kind of comes down to operationalizing that recreational sector ACL. I know in a lot of our council manage species, you typically see the rec ACL then derived from that called the RHL or recreational harvest limit. And it says here that all sorts of direct mortality. And you had mentioned post-release mortality as well. So I'm just kind of wondering at what level post-release mortality is considered for those rec limits. I know for at least several of the species you mentioned, there are several studies on those. I was wondering how that kind of gets baked in. Thanks.

MR. DUBECK: Yeah. So, if we have
post-release mortality estimates for some of the species, we plan to use those estimates or different proxies too as examples. With Bull shark, you know, we do have post-release mortality for those. But some of the other non-assessed species, we don't. So we maybe find appropriate either small coastal or large coastal species that similar information that we could probably use a proxy for those.

But again, we're still trying to figure out how to actively manage all these things. So we're kind of like throwing the numbers out there, what people think. And then we're still trying to figure out how we actively manage these things because once you get to certain quotas and you're kind of limiting certain user groups, then the management groups can potentially change between having flexible size limits or bag limits or retention limits for the commercial fishery to kind of limit the fishery and ensure that the quotas are not exceeded.

MR. BROOKS: Okay? You looked like you were deeply pondering.

MR. GOLDSMITH: No, I'm thinking. I guess
so the question is, is could it be like kind of a non-standard approach, depending on the species or the species group? Is that kind of what you're saying with that?

MR. DUBECK: Potentially. We're still trying to figure that out for those. But again, we wanted to create different sector ACLs to kind of manage them differently and kind of then from there, figure out what's more appropriate?

MR. BROOKS: Thanks. Mike and then go to online where we've got a few hands up and then I'll come back and catch you, Tom.

MR. PIERDINOCK: Thank you, Guy for your presentation. Just to expand upon that just so I'm clear. Like Willy's question, for all the different tiers for the recreational sector, there will be an assumption of discards. Correct?

MR. DUBECK: Yes.
MR. PIERDINOCK: Good. Okay. That clears that up. Then the numbers for the recreational catch, are they -- does that include the new MRIP numbers or are we basing it on old ones? And I have a few other
questions as well.
MR. DUBECK: Yeah. I think that was -Some of them were based on the new MRIP numbers, some were based on kind of historically kind of getting the Atlantic Blacktip one, this assessment just completed. Looked again at catch history and looked at the harvest there, but yeah. So in the future, we'll probably be using the new MRIP numbers to kind of figure this out.

MR. PIERDINOCK: If you'd go to Slide 13.

MR. DUBECK: Slide 13?
MR. PIERDINOCK: If you note, the rec is based on the number of sharks and the commercial is based on the weight. And this is where we run into issues with such that the lack of length data for rec. And are you catching 54 inch sharks? Are you catching 100 inch sharks? And then there's an assumption made. So in these cases because it appears there's no length data, is there an assumption being made based on the length that's then being used to come up with that estimate, which is different than as
you can how the commercial sector is based on weight? What's the assumption?

MR. DUBECK: Yeah, good question. I should have clarified that. So in the future, we plan to continue actively managing the recreational fishery number of sharks and the commercial fishery in weight. Since this assessment was completed in the assessment, they had a number of sharks in weight for the whole process. So they had the number of sharks caught and the weight for that for both sectors. So once we determine the ACL's, we already have the number of sharks we're talking about. So it wasn't us converting a weight -- a number to weight or vice versa. It was already done in this assessment process, so it's been reviewed that way. And I don't know what the exact numbers were in that process, but it was already calculated throughout -- through time for this species going back to the 80s, 90s. So it was calculated both ways.

MR. PIERDINOCK: And one last thing. As has been noted, you're either taking all years, five years, or ten years to come up with averages across
that period of time for rec or commercial. Is the flexibility going to remain to be able to take all or five or ten or is there going to be set -- part of this process, it will only be five, only ten, or an average?

MR. DUBECK: It's a possibility. So we could make it very -- set it for all catch information and then reevaluate every three to five years based on more recent years. Or we can look at the past ten years of kind of like what the fishery is operating now. And then continually have a potentially rolling percentage based on what the fishery operates. But again, nothing is set in stone. We're kind of looking for options and thoughts. I mean like that kind of rolling average potentially. We kind of continually the things and see what's kind of operating and how the fishery operates now. Because based on some external factors, the fishery -- the commercial fishery could drop even more. So then we have all this quota sitting in the commercial fishery that the rec guys can't potentially catch or have opportunities for. We don't want to stop retention or opportunities
for fisherman if things change.
MR. PIERDINOCK: I'm sorry. Just one more last thing. Now does this also provide the ability that if you have your ACL for the commercial and rec, and let's say the rec is way under or the commercial is way under and runs over that you have the ability then to look at the ACL and share among the two as long as the ACL is not exceeded?

MR. DUBECK: Yeah, potentially. So we're -- similar to what we kind of do with our commercial quotas in the Gulf where we have the regional splits. But if one, you know, one sub-region is below and the other one is over, as long as the combined is not exceeding the commercial overall quota, we're good. But if we have, you know, if the ACL is exceeded, we will take, you know, management measures to ensure that is reduced and not continue to be that way.

And I'm just throwing this out here, depending on which sector ACL exceeds it or caused that issue, we might then have management measures in those sectors, you know, talk about size limits. You know, if we had like a -- you know, if we reduced the
size limit based on size maturity for a certain stock, then we may increase it to something larger to cut down the number of sharks being caught or bag limits and things like that. So similarly, when we do commercial fishery, we have range where we can kind of go over 55 to 36 , down to zero.

MR. BROOKS: Great. We're coming up on 10 o'clock. Let's take a couple more clarifying and then I want to open it up so we can start getting into the -- into sort of what's on your mind on this. Let's go online. Jason, I saw your comment that you want to, you know, fold in for a comment, so I will hop over you and let's go Alan, Christine, and then Mark online for any clarifying questions. Alan Weiss, open up for you.

MR. WEISS: Thanks, Bennett. Can you hear me okay?

MR. BROOKS: Yes. We have changed the sound in the room.

MR. WEISS: Can you hear me now?
MS. BREWSTER-GEISZ: Yes.
MR. BROOKS: Yes. We can, Alan.

MR. WEISS: Can you hear me now? Okay, thank you. If you'd go to Slide 21 please. What's listed as Option D2. Is that what you'd describe about using proxies involving historic catches?

MR. DUBECK: Yes. We can use different -Sorry. Yes, we can different reference here is a catch to kind of come up with an ACL that would be more appropriate to what's kind of going on now.

MR. WEISS: My question then is under that scenario, Blue sharks are different from a lot of the other sharks when you're talking about Blacktips or Sandbars. People are not trying to catch the Blue sharks. For the most part, fisherman are trying to avoid them. So how does the process of using historical catches as a proxy for the biological reference points change under a scenario where the fishery is trying to avoid the species versus other species where the fishery is trying to catch the species?

MR. DUBECK: Yeah. So that again goes back to how we may do this on a stock by stock basis. We can have it slightly different for each one.

Within this one, yes. Blue sharks are not actively targeted and retained, but we would take that into consideration when we come up with using different years of catch to determine what the ACL would be. MR. BROOKS: Thanks. Let's go to Christine.

MS. KITTLE: Yes. Mine's kind of to piggy back off of kind of data and monitoring the recreational ACL. Is there discussion of adding an additional buffer to that because of the variability in MRIP or how is the recreational ACL going to be managed inland?

MR. DUBECK: Yeah. So we're still trying to figure out some of the -- how we're going to actively manage them with exact details. However with this, some of the uncertainty would probably be potentially built into the management buffer and some of the scientific uncertainties when calculating those numbers too. So some of that would be built in with that too.

MR. BROOKS: Thanks. Mark Sampson.
MR. SAMPSON: Yes, good morning. Yeah,
just $I$ had a question about the suggestion that the Sandbar shark research fishery, that the quota -- that because the quota apparently is not being caught, that it might be considered or you all might consider opening it up somewhat to the recreational fishery or other sectors or whatever. Anyway, I was under the understanding that the Sandbar shark research fishery came about because you all wanted to sort of monitor the recovery of the sandbars, so that fishery was set up under certain parameters to develop, you know, an avenue for the research on the recovery.

Anyway, it just -- I'm just wondering in the presentation, it sounded more like there's a sandbar quota that's not being caught, so what can we do to help catch that quota as opposed to how can we use that quota to develop the research we need to monitor the sandbar progress? I don't know if I am clear on that. I guess what I'm asking there again is it truly your research quota or is it just the quota to be caught?

MR. BROOKS: Thanks, Mark.
MR. DUBECK: Yeah. So that's something
we're considering. Again, if the quota's not being fully utilized and we have the restrictions of being in the research fishery and under the certain restrictions and within the research fishery is not being utilized, there's opportunities for other fisherman to utilize that quota. Yes, it was established for research purposes for the stock. The stock has improved over time.

And yes, $I$ hear your concerns and some of the concerns we have with potentially allowing Sandbar sharks outside the research fishery and also in the recreational fishery because of how that species looks very similar to so many other shark species. And some prohibited like Dusky sharks and the concerns of allowing it -- just letting some recreational fisherman out there harvesting those. However, maybe there's some sort of possible research purposes to continue maybe with recreational fishery. Again, we're just kind of throwing these options out there of what we'd like to see in the -- you know, potentially see in the future. But we're open to any kind of suggestions and options too.

MR. BROOKS: Thanks. Let's bring it back into the room and then we'll open for discussion. So Tom, you'll get the last clarifying question here.

MR. FRAZER: Great. Thank you, Guy. So if we can go back to Slides 13 and 14. Yeah. I mean so the ABC's, the ACL's, and the quotas were given and I appreciate that. But you gave the landings data verbally and I was just curious whether or not -anyway, I didn't see it in the amendment. If we were go to the amendment, would we be able to see the ACL's and the quota and the landings data for some period of time for each of those species that are not prohibited?

MR. DUBECK: So for this one here in the document, we put in an example of what the -- under each one, the scientific uncertainty options, what the potential quotas would be. And then we just kind of looked at again, data we have from say the SAFE report. Looked at like what the commercial harvest was in the past couple years and what the average was and what the potential quota harvest could potentially be. You know, again it's -- with the data we use from
the SAFE report. So it wasn't like we're -- we didn't go into details of like here's what the exact landings were in the document. We were just kind of generally saying like in the past, this is what the potential harvest would be.

MR. FRAZER: Got it, thanks. Real quick and if I might, if you go to the next slide on 14 , so that's specific to the Gulf. And you gave, again verbally the catch data related to the commercial sector $A C L$ and the rec sector $A C L$. The way that $I$ heard it was like 10 percent and 2 percent or 2 percent and 10 percent.

MR. DUBECK: So it would be, the recreational sector would have -- could harvest -- has been harvesting about 10 percent of the recreational sector and about 2 percent of the commercial sector. Again, those were based on what the current quotas are. This is now, we're expanding and I don't know what the multitude of it, but we're talking about going from 700 -- for the commercial, 700,000 pound quota to 16 million. So totally different, so yes.

MR. BROOKS: Great. Thanks all very much.

Lots of good clarifying questions there. So a lot in the presentation, a lot of ideas put on the table. They are put out there for you to react to lots of different ways that the Agency could take this amendment process. And so the question to you all is, you know, where do you see the need? What's the appetite for some changes? Is there anything that actually wasn't already on the list of ideas that, you know, Guy has put out there? Hard to imagine, but there might be. Are there other things you want HMS to be considering as it steps into this? So open it up for any feedback, conversation folks have, anything you want Guy and Karyl and the team to start thinking about at this point, recognizing there's hearings to come.

So I'm going to start online because Jason had the very first hand up. And then we'll bring it back into the room. And I see you, Sonja. We'll get you. All right, so let's -- if we can open it up. Jason.

MR. ADRIANCE: Thank you. Good morning. Thanks for the presentation, Guy. My first comment,
which might be disguised as a question starts on this slide actually. So on this slide, you're noting the OFL and ABC come from the stock assessment. My assumption would be that those -- that, that stock assessment had discards incorporated into it. And if that's the case, that would have been present in those numbers that then result in what you have down here as an ACL. So taking our commercial discards later on might be a little bit of double counting, but that might be something to look into if your stock assessment is already accounting for discards. You may not need to discount discards later on down the road.

So second comment relates to management -or actually catch history and some of those stocks -like three of four stocks. In particular, Bull sharks in the Gulf of Mexico. So that catch history has kind of been constrained over time based on management and those aggregated large coastals have some species, Hammerheads in particular.

So when looking at some of these shark species, availability and productivity may not
necessarily be born out in what the catch history is. The catch history may be lower than what could be taken or it might be higher in some cases. But the management of these species over the last decade or two is going to heavily influence that catch history if that's a metric that's being used.

In terms of sub-regional splits in the Gulf of Mexico, $I$ think in light of Gulf of Mexico Blacktip and then potentially what might come out of a Bull shark assessment, $I$ think it's a possibility that it might be time to get rid of that sub-regional split and it may not be necessary.

And the size and bag limits, I think those are things that definitely to be looked at too in terms of, on the recreational side, especially in the Gulf of Mexico when it comes to Blacktips and possibly Bull sharks. That's about all I have for now. I'll leave it at that. Thanks.

MR. BROOKS: Thank you. Christina, I don't know if your hand is left over or if you want to come in for a comment. Okay. I'm going to assume that was left over. Let's come into the room. Greg.

MR. HINKS: Thanks, Guy. I just wanted to clarify on Slide 27, the options for the recreational fishery changes. First, is L2 referring to a possible revision of a single size limit for all authorized species or possibly suggesting multiple size limits among those species?

MR. DUBECK: Kind of open neither because again, 54 inches was based on Sandbar sharks and size maturity. For some of these other species is much smaller, some much larger. So some of the options could be to kind of bend some of the larger ones together and make -- so maybe making Hammerheads, Bulls, Tigers, you know, making that 70 inches for all them combined or making it more specie-specific. And I know this may complicate some of the recreational regulations, but $I$ think it hasn't been complicated for a long time. So it's kind of like do you want to maximize retention on some of these species, maybe it's time to potentially have more complications and individual species limits too.

MR. HINKS: Great. It sounds like you identified my concern then. It is the concern of
distinguishing very similar species, especially for someone who's not seen some of these sharks on a regular basis. So again, I would still caution against different size limits among different species of sharks that are of very similar morphologies.

MR. DUBECK: Right. To your point, maybe have a Blacktip/Spinner size limit together would be more ideal, especially since most people can't tell the difference.

MR. HINKS: Yeah. I'm not implying that necessarily. But yeah, $I$ think something like that might be more appropriate, bringing those size limits among groups of similar morphologies, yes.

MR. BROOKS: Thanks. Let's go to Jimmy and then over to Sonja.

MR. HULL: Thank you, Guy for the presentation and thanks for the opportunity with Amendment 16 to possibly reinvent and rebuild our commercial shark fisheries. It's pretty exciting to see some of these options. They're in the right direction. I agree with most of the objectives in the science-based tiers that you proposed. I believe
that's definitely the way to go. Based on the science, I also agree that with the tiers that have accepted science, we do need to reduce the risk, especially when you look at the landings that you're saying that most species -- I think I heard the highest landings was 50 percent under the current ACL's. And with these increased ACL's, I mean, we can reduce the risk and provide opportunities for people to get back into the fishery in some form.

The management group structure options, in particular E4 I liked because when I target sharks, I do catch certain sharks on the same set generally. And to manage in these type of group structures would be preferable. As far as the regional areas, I would recommend the elimination of the 34 degree line for Blacknose and open that up to the fisherman to the north also to try to utilize that species. I think we're catching -- On the Blacknose, we're catching a small, small percentage of the quota for the last several years.

In a general, you know, I've developed a small coastal Blacktip fishery in my area for meat and
it's been very successful. And this is just in the last ten years. And I hope that this can continue and possibly it can expand to the local food markets up and down the coast similar to what $I$ have. I think there's a real opportunity there. So pretty much, that's what $I$ wanted to say to begin with. And as we dig in, 1 really think you're heading in the right direction and I like what I see. It's exciting. Thank you.

MR. BROOKS: Thanks, Jimmy. Sonja.
MS. FORDHAM: Thank you. Sonja Fordham, Shark Advocates International. Thank you for the presentation. It's really an impressive, comprehensive presentation representing clearly a lot of work. So thank you for that. Thank you for running through it for us. It's a lot also to consider, so basically I'm going to spend some time reviewing it and provide comments in writing.

But I had a few things to say in the meantime. And before this presentation, I was basically going to say that -- just again, say that I was impressed by the effort and intrigued by the
possibilities of being able to refine the management, therefore improve it and reduce some concerns expressed around the table. At the same time, I think one of the things that jumped out at me is real concern that the risk policy for sharks would dip below 70 percent. And as you probably know, my community sees 70 percent as a minimum, not a maximum for risk based on the life history and things that you know about sharks. So we wouldn't think lowering that would be sufficiently precautionary for these types of species.

After the presentation, $I$ do have to add just an objection to doing away with limits. Saying that maybe we should have no limits. That's something I would not like to see. And then voice a concern in general similar to one that a lot of us in the conservation community had about the SHARE report. That it tended to address exploitation over conservation pretty strongly.

So it might seem subtle, but I noticed that most, if not all of your objections about flexibility had to do with relaxing restrictions and
not leaving any -- there were no examples of well, in this case, maybe there's a possibility that a measure might need to be strengthened. So I think that the flexibility needs to be able to go both ways. And again, might be subtle, but if you could amend that a bit for the webinars, $I$ think that would be helpful for the broader public to know that it's not all about relaxation.

And then last, again, it's an impressive effort showing a lot of creativity to address the concerns that have been expressed to you. I will just try to wedge in here that a lot of us would like to see that kind of creativity dedicated to addressing growing concern for the lack of assessment and the outdated excessive catch limits for Common Thresher sharks. And sort of leaving it all up to ICCAT is not sitting well with a lot of us, so we'd love some creativity there in how to get them assessed. There is as you know, a coastal component to that population. And we're increasingly concerned and it's an increasing priority for the environmental community. Thank you very much.

MR. BROOKS: Thank you. Scott.
MR. VAETH: Thank you. Yeah, the few things that I see, you know, keeping the regions the same, instead of splitting them up, I think you all have been doing a good job on transferring quota when it needs to be transferred back and forth. So I don't think that needs to be touched at all.

The different limits on Blacktips, I could definitely see a higher trip limit, even up to no trip limits. I mean there's a -- there's a huge market in the Blacktip meat between South America, Mexico, Canada, which the higher the trip limits, the more money the vessels can make. Because the trip limit now of 55 fish, if you go out and try to catch 55 Blacktips, there's just not enough money into it with a vessel as large as mine.

But the large coastal sharks, you could up the trip limit a little bit, but I wouldn't say to go wide open with that. While we're exploring -- myself, I'm exploring new markets. And you know, a few extra fish would help a lot. But opening it wide open, I think that would actually cause a disaster. There
would be way too many fish being caught. But other than that, those are my main concerns of what I've seen up there today, so thank you.

MR. BROOKS: Great. Thanks, Scott. Rick.

MR. WEBER: Guy, I want to understand risk policy one more time. Sonja talked about you decreasing risk policy and seeing numbers. But if I am understanding the way you do the math, the lower the number, the higher the avoidance. So 70 is the allocation that you allow, therefore it is a 30 percent caution in which case -- all right, that's what I thought.

I'm just going to run through them for you and give you everything I've got here. A, I think you need an A 1-1/2. While $I$ can understand not going back to the full history, the world changes too much, too rapidly. In ten years, perhaps you're missing a 25 or 30 year option that would let you get rid of the way back, yet still really capture the world where it is and give you enough time to look further back.

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B, I \text { think is fine where it is. B,C, D, }
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my comments here are predictable. Do not get ahead of ICCAT. If ICCAT does not have a limit, we should not have a limit. That is an internationally managed fishery, which is competitive internationally by nature. Why would we handicap our nation unnecessarily if it is being managed and other nations are prosecuting that fishery? $I$ agree that we don't have much of a Blue shark fishery. But when you compare our nonexistent Blue shark fishery to $\mathbf{3 5 , 0 0 0}$ tons in the EU, why would we limit ourselves at all? You know, follow ICCAT. That will continue to be -you know, when we get to ICCAT species, I'm going to say the same thing again and again.

E, this will be a recurring theme.
There's a lot of good news in this report to, Sonja's word, exploit or to take advantage of where good news happens, we need more species-specific or at least look-alike specific limits. You know, if we have Dusky Sandbar concern and we can't fully release Dusky -- you can't fully release it. But where we can take advantage of good news, let's do more species-specific. Let's stop talking about sharks as
the broad category of sharks. Let's look at them as the individuals that they are with their varying life histories and various statuses and allow prosecution of fisheries where it is permissible, rather than talking about sharks are special. Some of them need protection. Some of them have taken advantage of the protection we've offered. And where we can let people prosecute, let's do so.

> F, I said -- follow catch history, but I wouldn't necessarily specify a timeline. I think you should keep track of how a fishery shifts and whether the allocations are still appropriate. But I think if you set yourself to a fixed timeline, it is exploitable against you. You know, people will shift to know that, that line is coming. But do I think you should monitor for it? Absolutely.

> G, I don't know why we would have a boundary on a healthy fishery. H, no opinion. I, once again, down in the Caribbean, I don't like setting up a Caribbean fishery if that fish -- look at the life history. If that fish is as we are here, highly migratory and it is being shared across
regions, then the Caribbean can't have their own. But if you find a stocker population that is resident within the Caribbean, then they should have their own. The theme is recurring. Look at each fish as a fish, rather than trying to throw a policy at the whole group.

J1, J3, you know, I think you guys have been doing fine. But $I$ would again, in the name of full exploitation, if you're sitting on an internal quota that can be released by transfer, why wouldn't you if the industry needs it? So you should allow yourself the prerogative to release scientific quota to fisheries if it appears you're not going to need it.

K and L, you know, just I came back again to more specie-specific is always -- is always better. You know? So that's what I've got for you there. I feel like there was one other followup. Oh, yeah. Following up, I don't understand and I will let you clarify on this and I may come back, depending on his answer. I don't understand an allocation that is sometimes in individuals and sometimes in tons when
all of the math goes to tons. Now you sort of challenged me, so $I$ went and did the math. In the Atlantic, you're talking about an 8-1/2 pound Blacktip. If we divide the recreational tonnage by the individuals, you're talking about an 8-1/2 pound Blacktip. And in the Gulf, you're talking about a 10.3 pound Blacktip. That seems unusually small. And if we actually caught the individuals that in theory we are allowed, it feels like we'll be over tonnage.

MR. DUBECK: Yeah. So in the document --
MR. BROOKS: I just want to -- just for timing, $I$ just want to note we have only five minutes left and about four or five people who still want to get in.

MR. DUBECK: So yeah, in the document, I do break it down to here's what the metric tons and number of sharks are and go through the math. In the diagram here, we just simplified it. So we chat offline a little bit more about it.

MR. BROOKS: Thank you. Let's go to Mike, Marcos, Dewey, Matt, and then I'm going to check back online to see if Christine has something. And again,
we've got about five minutes left.
MR. PIERDINOCK: Thank you. I'll give you the short version as far as what Rick said concerning ICCAT. You know, let's not get ahead of ICCAT and I just won't repeat that. I agree with what he said. I would like us to be provided the flexibility with the ACL of looking all years, five years, ten years. To look at that to what would be fair and equitable to commercial and recreational. Especially if you're looking at five years, there may be conservation measures that were implemented that then has a significant reduction on both user types or sectors that then isn't reflected appropriately in what the allocation should be between the two.

So I'd like that flexibility to remain. I'm happy to see that the discards will be included within the recreational sector in each ACL and for each tiered approach. The issue versus length and weight is an issue with many species that are managed, you know, by different councils and so on. So the difficulty of that is if we have a 54 inch Mako, we implement conservation measures and we're going to
catch other 54 inch Makos now, in three or four years from now, they're all 100 inches. Then the numbers aren't reflected of that change in weight.

So needs to have food for thought to look at that and how that could be addressed to be reflective of what is really being caught because it could hurt one side or the other or the recording of what actually is being caught. And is the reason for the need for length information with many species we deal with up and down the coast.

The risk policy at 70 percent, you need to take into consideration with change in temperatures and climate change and so on, we're encountering more situations. What we see on the water is inconsistent with the stock assessments. And there's some consideration that possibly that ABC could be revised accordingly as a result of that changing condition. So I would only ask that a flexibility be there. And $I$ understand why it's there at 70 percent and the need to be conservative. But there are things that are happening quickly that are impacting the fishery that could impact ultimately results. And in
the new MRIP numbers that have been updated appropriately, be making sure that, that is the case with all the different ACL's. Thank you.

MR. BROOKS: Thanks, Mike. Marcos.
MR. HANKE: My comments go directly to the Caribbean, not to all the other fisheries. The regional quota for the Caribbean, more than list of species that I think should be considered to be part of that, I'll let -- working on that to make that list. And I want to strongly support public hearings in Puerto Rico for us not to disconnect with the feedback from the fisherman that do that kind of fishery in Puerto Rico. Otherwise, we're going to get into the same problems that we have in the past, not hearing the industry.

And in general, for me it's important to highlight that list of species or whatever we're going to do in the Caribbean, the prevalence of the species on the landings report and potential interactions with all sectors, recreation and commercial years are important, especially on the areas that we have essential habitat for juveniles of some species and so
on. We have to analyze in terms of juveniles interactions, adults, and also changes in seasonalality of those interactions.

Number two, the biological characteristics of those fish that's probably a main driver that if you're going to put them together, put together fishes that have similar risk to be caught or susceptibility or anything adverse for the species -- the biological characteristics are important.

And number three, the socioeconomic consideration like target or incidental approach, I think there is two things there that give us a little room to address the characteristics of a known target fishery of sharks, whether you do interact with them with performing other styles of fishing in the Caribbean. Just to highlight again, target and incidental approach like a dual analysis in there. Number four, ecological function of those sharks in the Caribbean. Number five, extreme prediction caused by ex-species. That's something that we should consider because in the Caribbean we have a lot of problems with some species of sharks
that are affecting other fishery.
And the last is identification challenge.
That can be an element of they have to be mixed on this analysis. That if you cannot pull up Sharpnose versus Caribbean Sharpnose, just an example, we have to take -- And there is others. Right? I'm just highlighting a simple one. We have to take that into consideration when we put a list of species together for management.

And about the group structure, I see merits on E3 and E4. If I have to choose, E4 is my -up to know, my favorite one. But I want to defer after the public hearings or the other exercise -- I'm including the industry. I would like to hear from them, which are the experts on the shark fishery. And in terms of -- And that's all. That's all I have. Thank you.

MR. BROOKS: Thanks, Marcos. I'm going to take about five minutes from our break here just so we can get some more comments -- get the last few comments in here. I've got Dewey, then Matt.

MR. HEMILRIGHT: Yeah, thank you. It's
good to see that HMS is finally going to look at giving some flexibility. Finally after it's killed the shark fishing industry. And how I look at this is you look at the quotas that are given right now. And in some of them, you're only landing up to 50 percent is the most. So you've given no flexibility with your Blacknose for the last five years. The most I ever landed was like 50 percent. But yet you allowed no flexibility to increase the trip limit.

So this whole time on a various amount of shark species, you haven't allowed the fisherman, what's left, probably a handful of active fishermen and three guinea pig fishermen and a research fishery, you haven't allowed nobody else to increase their catches because you have not allowed the trip limits to be able to be changed and to be moved. And so finally you're looking at something.

It's good that the few fishermen around the table and others are able to develop boutique markets to rebuild the fishery. But it's going to be -- when I say "rebuild the fishery", catch fish and sell the sharks because the majority of the folks that
were in it at one time that caught poundage are no longer in it.

So the whole thing that has to be done -and even though I have about 50/50 faith in you all's management efforts based on your historical records, you need to allow the most flexibility you can of the fisheries fishermen that are left to harvest the quota. If you have a quota, why are you constraining? And why would you put in a Blacknose quota and keep it at 8 Blacknose sharks and not allow if you're seeing that the quota's not being harvest over the years, why not allow it to be changed? I mean that's just kind of just ignorance when you look at it. And it shows you the failure of what's happened and the collapse of the shark fish industry.

And so going forward, it's good to see that there might be some flexibility. But the only way there's going to be flexibility is for the fishermen left. All of us are not one fishery people or individuals. And so whether it be commercial species for deep-water longlining to see if it's longlining or if you're catching Grouper Snapper, we
need all these flexibilities to survive.
And you all should have done this a lot sooner. Because if you go look at the landings as I just said and you're only harvesting up to 50 percent of the quota, what's the reason why the trip limit was not increased to allow the individuals in the fisheries to have a chance to optimum yield and harvest to quota? That is just -- If it was part of a company and you had public shareholders, people would be removed for that failure for that to happen.

MR. BROOKS: Thanks, Dewey.
MR. HEMILRIGHT: And it's going to get worse because the sharks are ever increasing. There's nobody to catch the sharks. You're having more depredation, whether it be with Amberjack --

MR. BROOKS: Dewey --
MR. HEMILRIGHT: -- Shellfish and all the others -- I'm getting ready to wrap it up. And so thank you for hopefully allowing for flexibility. See, I'm reaching out a good part of it and thanking them for something. But right now, what you all are done for is kill the industry and it's past time to
give something back with some flexibility and some common sense --

MR. BROOKS: Thanks, Dewey.
MR. HEMILRIGHT: -- that a lot of times doesn't seem to be there.

MR. BROOKS: Thank you, Dewey. Matt.
MR. HUTH: Yeah. I mean, I'm just going to add on to that. You know, I agree with Dewey. And here we are sitting around this table and our responsibility is to manage what we have in this ocean, man. And my responsibility is to feed people. And we have a wonderful protein source that needs to be harvested because what's happening is, you know, we've said this over and over and over again. And it's great for you guys that we're starting to see a change in the wind possibly that you know, yeah, maybe we need to fish these species some more because it's inhibiting our ability to fish for other fish and shrimp.

I mean the guys shrimping are having a terrible time shrimping because of these sharks. They need to be fished down. And you know, I can't cry
over spilled milk, but the markets have been ruined because of bad publicity. And you know, I spoke with some of you guys yesterday afternoon. I mean we need some positive publicity on this protein source, you know, to move these sharks and use the resource that we have in this nation.

MR. BROOKS: Thanks. I do want to check and see if Christine whose hand is still up, wanted to come in. And then we should move to a break.

MS. KITTLE: Yes, I'll be brief. My comment is just that while we appreciate, you know, you guys really reaching to the stars. This is really comprehensive and we appreciate all the options. My suggestion would be maybe when you go to the amendment, if this could be broken down into a couple different amendments just for people that fully understand everything that's going on and maybe comment. I know in some of the council stuff, we have to break things up just to help the public be able to comment on the things they want to comment and not have to go through a 500-page document. So that's my only comment for now.

MR. BROOKS: Thanks, Christine. And thanks -- Peter, go.

MR. CHAIBONGSAI: Just really quick. And I'm just going to repeat what $I$ said at the last meeting. And some of the new people maybe will remember this as well -- maybe don't -- I'm sorry, the old regard. But playing off of what Matt was saying actually is last time we had an economist come in and talk about inflation. And he was basically stating that food inflation is going at a higher pace than normal inflation. Right? Like buying goods is more expensive now than it was in the past. And there's access to, what Matt was saying, a cheaper protein that if marketed correctly can be a good source for the general public.

And we're talking about -- I think Mike brought this up at the last meeting as well. Sorry to throw you under the bus, Mike. But he had mentioned something about -- or somebody else, EEJ too. And NOAA at one point, I think, Dr. Drymon talked about this as well at the University of Mississippi State was saying at one point, NOAA had a marketing arm or
helped to market the shark market. And then all the sudden it was gone. My guess is due to pressure and not science.

So I would just want to push that on you guys again. If you're looking at trying to get cheap protein for the commercial guys to come back. Look at what the economist said last -- at the last AP. And look at the potential resource that we have here as well. Thank you.

MR. BROOKS: Thanks, Peter. We do need to close this out. I'm really glad we had the extra 20 minutes this morning. Obviously this topic needed it.

I am not going to attempt to summarize all the different perspectives $I$ heard around the table today. But I have seen Karyl and Guy taking copious notes.

I will just say I did hear, you know, thoughtful, helpful, comprehensive right direction. So I think there was a clear like, this is a good, you know, a good start here. I heard a lot of comments around the importance of what I'll call "thoughtful flexibility". Some comments around, you know, thinking about specie-specific type things where it's
doable, defensible, realistic, you know, a whole bunch of caveats around that. And then a number of cautions, you know, and varying views around, you know, cautions around catch history limits, varying views around, you know, catch limits, et cetera.

And then in the end, towards the last couple of comments here, more sort of -- a couple of outreach flavors. Sort of be sure to go to Puerto Rico. Be sure to think about how you're presenting this amendment in bite-size chunks. And then this last set around, you know, think about how do you make sure that we're taking advantage of the species that's out there and the potential to address a number of different issues that we heard at the end.

So thanks, everybody. Obviously, lots more to talk about here. We are at 10:40. I propose we take a ten-minute break. Come back here at 10:51 and then we will talk about CITES proposal. So thanks very much.
(Whereupon, the above-entitled matter went off the record at 10:41 a.m. and resumed at 10:52 a.m.)

MR. BROOKS: Good. Thanks all. I assume we will get the remaining folks back to the table here shortly, but I know we need to push forward.

So we want to continue with a discussion around sharks, but we want to shift gears a bit here and hand it off to Rosemarie Gnam and Mary Cogliano with US Fish and Wildlife Service to talk to us about CITES approved shark proposals that were discussed at the November 2022 conference of parties.

So Rosemarie and Mary, I will hand it off to you. We've got something -- to about 11:45 or so. So I think we'll have plenty of time to talk about this. Over to you.

MS. GNAM: Thank you. It's a pleasure to be here. And I'm the head of the scientific authority for CITES at US Fish and Wildlife Service and Mary is our manager of the Branch of Permits. And so we'll -pleasure to talk to you about what happened at the last CITES meeting in terms US positions and sharks.

For those of you, I thought I'd give a brief introduction to CITES that are not familiar with CITES yet. It is the international treaty called the

Convention on International Trade in Endangered Species of Wild Fauna and Flora, hence CITES. US was one of the founding nations of the CITES treaty. We're celebrating the 50th anniversary of CITES this year. It went into force on July 1, 1975.

Currently there are 183 countries that are members to CITES and the EU as an economic organization is also a party to CITES. So there's 184 parties which is almost the whole entire world. We're missing probably a few small Pacific island nations but anybody trading in CITES listed species is usually a member of CITES and has to abide by its agreement.

So the purpose of CITES is to regulate the international trade in wild fauna and flora to ensure that that trade is legal and biologically sustainable.

That is the objective of CITES. And since the 1990s, CITES has entered into the regulation of marine species so it is not just covering terrestrial species. Next slide. Just hit enter. Yep.

So some of the misconceptions about CITES is that it regulates domestic trade. It does not regulate any type of domestic trade in sovereign
parties including the United States. Another misconception of CITES is that it includes all the world's endangered species. No, there are certain scientific criteria for including species under CITES and one of those criteria is that species must be subject to international trade. So it's a species that may or is currently threatened by international trade.

And so how CITES works is that there are three appendices where species are placed in CITES. Appendix 1 is the most endangered species. There's currently about 1000 terrestrial species in Appendix 1. It's those species that are threatened with immediate extinction right now. So there is no commercial trade allowed in those species and it requires both an import and an export permit from the countries.

Current species in Appendix 1 are like the tigers, Indian rhinos, some of the elephant populations. It's the one that gets all the attention at CITES meetings however the crux of CITES is really to focus on what we know as the Appendix 2 species of
which there are about 30,000 species included in that appendices. All the shark species that are included in CITES are in CITES Appendix 2 and it includes plant species as well.

It's species where over exploitation has been identified as a risk of extinction and so CITES is to try to regulate that trade to bring it to sustainable levels. Commercial and non-commercial trade are allowed in Appendix 2 species, that's an important point. And permits are required from the county of export to basically import those species. So i.e. for example, the hammerhead species that are currently listed in Appendix 2, if they're exported from the United States they must have a CITES permit with them.

And how we add species to Appendix 1 and Appendix 2, as I said there are certain criteria that are met. Proposals have to be brought to a conference of the parties, which CITES meetings happen every two to three years. As we just said, we had one in November of 2022, in which case we did look at a number of shark species and I'll report on those.

But essentially it's a two-thirds vote, a majority of the two-thirds parties accredited and present at the meeting make the decisions. So it's a high bar to meet. It's not a simple majority to add species to a CITES appendices. And so keep that two-thirds majority in mind when we talk about some of the proposals from the last CoP.

Appendix 3 is a unilateral decision by a party to add a species to the CITES appendices where they're looking for national controls. Basically legal acquisition findings. US has put some species in Appendix 3, mostly some of our native turtle species, for example, map turtles. And that can happen at any time but it's a lesser regulatory process for Appendix 3 species and the sharks we're talking about, none of them are currently in Appendix 3. So we're really talking about Appendix 2 when we talk about shark species.

How CITES works, as I said, it regulates the export, re-export, and import, and enter of the sea of live and dead animals and plants and their parts and derivatives. So for sharks, much of the
trade is driven by a fin trade rather than a meat trade although we do have meat trade in some of the shark species.

International trade is regulated by a CITES permit. One shown here on the slide. It can only be issued if certain conditions are met, and I'll go over what those conditions are in a few minutes. But that CITES permit is presented when the specimen leaves the country and enters the country. And that's basically sort of like the approval process for any export of a CITES species is to have that CITES permit.

And so the two findings that are made, and that's why the treaty itself sets up that each party to CITES has a management authority which has the authority to issue the CITES permits. And they make a legal -- what is known as a legal acquisition finding which is required under the treaty, that the specimens to be exported were legally acquired in accordance with our national laws.

And then the treaty establishes a scientific authority which for the US, the management
and scientific authority are both in the Department of Interior, are implementing legislation for CITES is the US Endangered Species Act which gave that authority to the Department of Interior and the management and scientific authority are based in the US Fish and Wildlife Service.

That said, we have a CITES coordination committee that we work with other federal agencies and our marine species, we work side-by-side with our colleagues at NOAA on any decision making that relates to marine species.

So the scientific authority makes a finding related to the permits known as a non-detriment finding and essentially that finding's saying that the export of those specimens will not negatively impact the survival of that species in the wild. I.e., for Appendix 2 species, that's basically making a finding that we find that that export is biologically sustainable and as I said, we basically in our non-detriment finding for marine species, for the shark species that we've worked on, rely heavily on NOAA's management plan for that species and consult
with NOAA in making that non-detriment finding.
So next one. Okay. So this will bring us to what you probably really want to hear about, what happened at the last CITES CoP on sharks. And basically there was a proposal for requiem sharks, all requiem sharks to be included in CITES Appendix 2. Again, remember that would allow commercial trade.

It had a fair number of proponents, Bangladesh, most of Latin America led by Panama, which was the host country of the CITES CoP. West African countries represented by Senegal, and then the EU and the UK were on the proposal and helped work on this proposal. And the UK, keep in mind, votes as a block, so they reach their position. So the EU carries with it 27 votes when they go to a CITES meeting.

Essentially the proposal, the US started out undecided on this proposal, working with our colleagues in consultation with NOAA. Before we went to the meeting we published our position in the federal register notice which was undecided basically because concerns we had that they were bringing in all the requiem sharks in the appendices and we were not
convinced particularly, that blue shark met the criteria for inclusion in CITES and as a look-alike species that we felt that they could be distinguished from other requiem sharks.

So essentially we went into the meeting undecided, we heard arguments by other countries, we heard the debate at the meeting, we looked at the FAO expert panel review and other expert reviews. And when it came to a vote, this definitely was a proposal that came to a vote, the US did end up ultimately supporting the proposal.

And so there were 88 countries that voted yes and 29 countries against. Definitely more than a simple two -- simple majority, and more than the two-thirds majority. The tide at CITES has turned in that many parties now see CITES as a way to regulate the international trade in shark species. And so this proposal was adopted with a note in the summary record, Japan expressing some of the concerns that the US initially had about look-alike species being included and the massiveness of this listing being all requiem sharks.

That was recognized with a delayed implementation by the parties. Normally listings, including species in the appendices become effective 90 days from the decision. At the end of the CoP, which would have it put it at this listing becoming effective February 23, 2023 however the parties agreed to, given that non-detriment findings needed to be made for the requiem sharks and some work done on shark identification, they delayed the implementation to this year, November 25th.

So it had a one-year delayed implementation and so it is not in effect currently but will go into effect on November 25th meaning that any trade in requiem sharks, and their fins, and their meat, and their products would need to have a CITES permit after that -- on that date and after that date.

The next proposal that parties looked at was hammerhead sharks. Currently, before CoP '19, there were three hammerhead species included in CITES. The great, the smooth, and the scalloped. And because of the concern that we've seen increasing trade in some of the other hammerhead species and the
issue of look-alike species, this proposal was made to include the species in Appendix 2 by Brazil, Columbia, Ecuador, the European Union, and Panama.

The US supported this proposal to include the bonnethead species in its own right in Appendix 2 and the remaining species due to the similarity in appearance, look-alike, that are currently included in Appendix 2.

This proposal did not go to a vote. It was adopted by consensus meaning that all parties supported the proposal, there were no objections. And the effective date, it is now in effect. It was February 23, 2023.

There was another proposal for sharks to include all guitar fishes in Appendix 2 of CITES and that proposal was brought forward by Israel, Kenya, Panama. And the outcome of that, that also went to a vote. It has 101 countries voting yes to include it in the appendices, 14 countries voting no, and 13 abstained.

The US voted yes. Oh, I should add, on the requiem sharks, that was done I think by a secret
ballot. The US always announces its vote at the end of a vote. We don't support secret ballots, so our vote is always transparent and open. And so it's on the record that we vote yes on that proposal. It again was adopted and that one became effective February 23rd.

We've really not seen any impact of the guitar fish listing on the US. We're not a major trader or importer of those species except for some aquarium trade.

And so I put our contact information down in the PowerPoint because those of you that engage in shark fishing and do exports, if you need us as contacts for how to get a permit, we didn't focus this presentation on the permitting process but we're available. Mary is here to have any, you know, to address any questions you might have. We've got lots of information on our website. How to obtain a permit. And as I said, we work closely with NOAA in any decision making in issuing those permits.

So go to the last slide and thank you all for listening. I know we were allocated more time,
but you know, we're happy to answer questions because that's probably the best way to address this rather than through a PowerPoint and I imagine you might have questions based on past experience.

MR. BROOKS: Great, thanks. I'll let you turn off your mic if you wouldn't mind. Great, thanks. Thank you for that overview and let's see what questions or comments AP members have.

I'm going to start over in the corner and then we'll work our way up here.

Go ahead.
MR. VAETH: Okay. Thank you.
Almost all of my sharks now are exported out of the country. So what is the status on the non-detriment findings for all these species of sharks?

MS. GNAM: We do the non-detriment findings based on the applications when we receive them. We currently have what we call a general advice that is based on NOAA's management plan for porbeagle sharks, for mako sharks, and for hammerheads. For the previously three listed we haven't gotten any new
applications for any of the newly listed hammerhead species to my knowledge yet. DCA hasn't seen those.

We treat oceanic white-tip and requiem shark on an application by application basis meaning we make a non-detriment finding specific to the application rather than manage them with a general advice.

So we are capable of making both the legal acquisition findings, NOAA has regulations in place on how shark fins are landed, and we can do the traceability of those products so to my knowledge the US has not had an issue in making legal acquisition findings or non-detriment findings when we are processing applications.

And we haven't gotten any applications yet for requiem sharks, but you know, anticipate that that may come once they are listed in CITES. So we're working on an implementation plan for that.

MR. VAETH: What kind of time frame are we looking at when we apply for these applications?

MS. COGLIANO: I can answer that question.
So for these applications, I would say please give it
at least 60 days. These are not some of the more complicated applications that we process but due to various reasons, we have quite a permit backlog and so I just recommend that, just get it in as soon as you can and if you need to you know, check on it or whatever we're there, reach out to me if you wish. But I would give it 60 days.

MS. GNAM: Yeah. Mary's being kind. The US is probably the largest importer and exporter of wildlife, and you know, we get over -- we issue over 40,000 permits a year. And as Mary said, for the newer listed species like requiem sharks they may take, from a DSA perspective, more time because I haven't made a non-detriment finding yet. I need to consult with NOAA. We do it ahead of time anticipating there will be trade, but you know, as Mary said 60 days, but we do have a backlog.

You know, the pandemic caused -- people didn't ship during those times. Now everybody's catching up again, you know. Sharks are part of that trade but US has a huge trade plant species, timber, and trophies, and -- you name it we export it --
native turtles. And so applications are processed by the date they're received and there's a cue.

MR. BROOKS: Great. Thanks. Let's go to Greg and then we'll go to this corner for Sonja and Rick and then back down to Marcos. And I don't see any hands online right now. So if anyone online wants to get in, please make sure to raise your virtual hand.

Greg.
MR. HINKS: Hi. Thank you. Just a couple of questions. First, you mentioned the EU represents 27 votes. Are those votes made in solidarity or they made independently by country? And I'm also curious, are species ever removed from the CITES list?

MS. GNAM: Okay. I'll take the first question from the EU. Basically the EU has a, just like the United States, a very extensive consultation process with its member nations. They start talking about the proposals. The proposals have to be submitted 150 days before the dates of the conference of the parties. The EU has a scientific committee that reviews those proposals. They do vote as a
block. So that means they have to all agree to the US position --I mean, not the US position -- the EU position. I wish. I wish.

They didn't agree with us on many things at this CoP. The EU, I guess that was my Freudian slip there. So the EU basically has to agree among its member countries. When they cannot reach a consensus on what that position should be, they have an elaborate process that $I$ do recall from when we took a polar bear proposal, where they have to basically abstain if they don't reach consensus.

And how they -- if it came to a vote, which it did with polar bears, if they don't come to consensus there is a way to vote within the EU which is based on the population of the EU country, human population. And so it's a quite complicated process and they hate to invoke that process so they try to reach consensus.

For them to be a proponent on the proposal meant that the EU knew in advance this proposal was coming and had discussions internally so that they could co-sponsor that proposal. To my knowledge, the

EU helped draft, worked with the other proponents to draft the proposal for the requiem sharks and was a very strong proponent of that proposal at the CoP.

And the US had several meetings with them expressing our concern that the proposal was rather broad and included you know, species that we didn't feel met the criteria. At the end of the day EU votes -- they did at the CoP, not for marine proposals but for the first time we saw the EU start to amend other countries proposals to get what they wanted. They tried it with the US on one of our turtle proposals and we took it to a vote, and they lost.

After that, I think they got the message. And so EU is trying to flex its internal, sometimes it's internal decision-making, getting what they want at an international treaty. But they're encountering push back.

MR. BROOKS: There was a second question.
MS. GNAM: And your next was --
MR. BROOKS: Second question was does anything ever come off the list.

MS. GNAM: Do we ever remove things from

CITES? Yes, we do. It's not an easy process, but at the last CoP, the US actually took three proposals that were a result of a CITES process called periodic review of the appendices where we look if species still meet the criteria in the animals or plants committee and we removed them from Appendix 1 to Appendix 2 they moved, and then with the hope that the next CoP, the one after that they will go to be removed entirely.

But you can't just go from one to nothing. You have to go step wise. But Appendix 2, we don't usually remove species because again it allows commercial and non-commercial trade and it's a regulatory process. That's not to say that you can't do it but there are criteria you need to meet. If the species were to be no longer in international trade, then Appendix 2 probably wouldn't be warranted.

But you can remove species. Again, to remove them takes a two-thirds vote. So you need to have the solid science behind you to show that, as we did for the -- we took a -- we removed this boa and two bird species that showed the species had recovered
and no longer met the criteria. So it is possible.
MR. BROOKS: Great. Thank you. Let's go up to Sonja.

MS. FORDHAM: Thank you. Sonja Fordham, Shark Advocates International. I have a comment and a request. No question. Is that okay? Okay. Slightly more formal than the previous sessions.

Thank you for the presentation and your hard work at this CoP and for taking the time to be here today. As we've discussed before, the conservation community is keenly interested in better integration across government agencies, specifically for sharks given how they're seen as both commodities and wildlife and therefore, as you know, subject to fisheries and environment treaty obligations. So we're really pleased that you could be here.

And while appreciating the many new rank listings, several scientists and NGOs that collaborate on CITES shark issues including the wildlife conservation society, the humane society international, defenders of wildlife, and my own, we wanted to take this special opportunity to make a bit
more forward looking request with regard to upcoming CITES decisions on candidate species for review of significant trade.

I appreciate a little latitude here. As much like the oceanic white tip discussion we had yesterday, the CITES trade review process is vital to leveling the playing field for US fishermen and promoting compliance with international conservation obligations that $I$ think everyone here wants.

So we noted from the recent analysis by the CITES secretary that trade that Appendix 2 listed fishes including any cartilaginous varieties is especially concerning as you are probably aware of the seven animal tax the groups reviewed against the five criteria for risk. The fish analysis showed relatively high level of trade including the sharpest increases at global and country levels and the highest number of endangered species.

A particular concern are the sharks and the rays that meet three or four of the five criteria including short fin mako, spine tail demo ray, pelagic thrasher, and several species of guitar fishes. So
ideally we'd like to see greater review for all of these species as well as lower ranking thrashers and hammerheads that are often grouped in trade with the higher ranking members of those families.

We do recognize however that there are limitations associated with the secretary's capacity and the trade data for the species that have been listed relatively only recently. As well as the needs of course, of other taxa.

So we're therefore suggesting that the US give top priority to the high ranking elasmobranchs that were listed a decade ago and that are now classified by IUCN as critically endangered. So that would yield three shark species, the great hammerhead, the scalloped hammerhead, and the oceanic whitetip.

So we just wanted to take this opportunity to encourage Fish and Wildlife Service and NOAA to continue to work together and to play a leadership role toward ensuring that elasmobranchs, at least those three priority species, are selected at the June meeting of the animals committee to receive significant trade review.

Thanks very much for your consideration. MS. GNAM: May I Respond?

MR. BROOKS: You bet.
MS. GNAM: Okay. Sort of anticipating this question. Thank you Sonja for raising it.

For those who are not familiar, I'll go over it, the process with you. In between the conference of the parties, in those two, three years before there's a meeting again of the CITES parties, there is work directed at the animals committee, and the plants committee, and the CITES standing committee which the US is currently on the standing committee, and I serve as the chair of the CITES standing committee.

Animals committee has a number of decisions directed at it that -- there will be a shark working group. But the process Sonja's talking about is, there is a process in CITES that is called the Review of Significant Trade in Appendix 2 species. Basically geared to looking at the trade in wild specimens that are of species included in Appendix 2.

And there are certain evaluation criteria that are looked at and assessed, like increasing trade levels, non-detriment findings, a number of criteria in the process. It's a pretty robust, cumbersome, objective process. And there's an initial data analysis done before the meeting. The next animals committee will be June 19th to the 23 rd . I will be leading the US delegation to that animals committee. NOAA board has two delegates on our delegation going to animals committee. We work very closely with them.

That process has been the US's position whether it's for terrestrial marine species, is we support that process of review, it is a robust process, it should be based on science. And essentially, the first step in that process when species are selected for that process, is to look at their non-detriment finding.

We are not intimidated by that review of our non-detriment findings. We have been in the review of sig trade for corals, many terrestrial species, commercial native fishery for paddle fish,
sturgeon caviar. We have survived that process. We're eliminated at the first step usually. Our non-detriment finding, and our legal acquisitions stand the scrutiny.

Other parties, to be perfectly honest and frank lack some capacity to make non-detriment findings and those countries continue to engage in trade when they do not have robust non-detriment findings. That's why this process was created to look at those.

And so Sonja has said, yes some of the shark species have fallen out in that initial data analysis. In particular the ones you mentioned. The US is currently evaluating the data for those species, trying to determine what our species are. There is a limit to how many species can go into the review of sig trade between the two CoPs. It's usually capped at about 20 species.

I've co-chaired that working group. It is quite a lot of work. We work for two days selecting those species. We are concerned, as Sonja said, it does put the US at a competitive disadvantage, but
we're also biologically concerned about the high volumes of trade we continue to see in these species not coming from the US, from other parties that we know probably don't have the capacity to make non-detriment findings but continue to trade.

So $I$ suspect, $I$ don't know what the US position will be yet going to that meeting, we're still working with NOAA on those data analysis, but I suspect particularly the conservation organizations and some other parties, may in fact be pushing to see some of these shark species that were listed several years ago in Appendix 2 to see if countries are making non-detriment findings. We'll have to see how that plays out.

The US is not on animals committee. The North American region is represented by Mexico on animals committee. I suspect, usually the selection of the species for the next review of sig trade is done by consensus among the animal committee members but it could conceivably to go a vote among animal committee members given some of the species we're talking about.

But as a general comment, the US is not afraid of review of sig trade. We think it's a very helpful process. If a country is found that they're non-detriment findings aren't adequate enough, recommendations are actually made by the animals committee to that party with a timeline for improving things and you know, most countries usually try to make progress and meet those recommendations.

Ultimately, if they do not over a period of time meet those recommendations, they can in fact go to standing committee and face trade suspensions. But that is like the ultimate step in the process and that is a very open and transparent process. At this initial stage, it is the selection of the species and then the next animals committee will have looked at countries' non-detriment findings and then make recommendations what happens next.

MR. BROOKS: Thank you.
There you are. Okay. Go ahead, Rick. MR. WEBER: I'm going to pick up right where you are. I spend a lot of time in ICCAT and specifically the compliance committee of ICCAT. And
so when you speak about things being open and transparent, I find lots of fault with ICCAT, but they put their task one data right online, so it is challengeable by any citizen anywhere.

Does CITES do anything -- can we see -- I would personally, you know, I would personally be very interested in comparing the trade data of CITES to the catch data of ICCAT to see if these things are happening. And if we can't see it, do you guys -- I have no doubt you guys have no fear that we would hold up a non-detriment. My question is about everyone else because I have not seen us not complete what we oblige to do at ICCAT. What I've seen is the undermining of good conservation measures by other people not doing what they're supposed to do.

So I have no question about you saying you not have any fear. Do we put any fear in other people?

MS. GNAM: We do put fear in other people.
That's my job at the meeting. Essentially, I've only been to three ICCAP meetings but you're right, the review of sig trade is a process in CITES that's akin
to compliance. It ultimately gets down to compliance at the very end stages.

And as standing committee chair I'll have to be dealing with several of those at the next meeting. Luckily not marine yet. Timber.

But essentially, CITES is more transparent, at least from what $I$ have experienced, in that the document that currently is suggesting which species met the criteria for review in sig trade is posted on the CITES website. You can look at that. Now the caveat $I$ would put is that data is dependent upon what parties report in their CITES annual report. Okay.

But by in large, most parties have to comply with that. US has not -- because of the backlog, we have not put our data in since 2019. We'll remedy that by the fall. But we're not a big exporter and what you're looking is the data from largely the Asian countries, some of the Pacific islands, and some of the Latin America countries.

And yes, if you look at that data sometimes it's interesting, some of the same countries
that brought these proposals for the new shark listings are the same ones that are still trading in sharks. So I'm sure we'll have those discussions. But yes, it is an open process. The animals committee's decisions, there are people who can go to the meeting as observers. We get a lot of observers. And it will be looked at and the notes from what countries are selected, like I said, in the first step of the process.

Yeah. There are countries that probably do not want to see some of the shark species go into the review of sig trade because they're concerned about their -- but it's the only way of leveling that playing field. And to get what you had said, too. Those decisions don't get really political until we get to a site -- it's a technical meeting.

And they'll get more political as the process plays out, but the first step is getting in the process which I think is pretty -- having done this for almost 20 years -- is pretty robust because it's the scientists making the decision of what goes in the process.

MR. WEBER: Extremely fast follow-up. I understand that the process is clear. My specific question is, is the raw trade data by nation and species available somewhere?

MS. GNAM: I didn't -- I don't have it in the top of my head. It's -- right now if you go to the CITES website, you look up documents for AC-32, go to the agenda item called review of sig trade, and then the sub-agenda item is selection of species between CITES CoP 19 and CoP 20 and you can look at the data that is there.

MR. BROOKS: So I'm going to suggest that maybe we get that information that you just shared out by email so folks have that and can use that. Thanks.

MS. GNAM: One other thing though. I would be very interested, from a US perspective, and I'm sure NOAA would be too, that how it does match up to the ICCAT catch data. Because our experience is -now remember, your catch data is I think based on years.

The CITES data is when the specimens are exported. So given shark fins can be dried and kept
for many years doesn't necessarily equate to the year of harvest of that species. But it will show you the volume that has been traded.

And the concern is you know, these stock piles that exist of shark fins you know, can they really still support that volume or is it coming from illegally harvested species. That's the purpose of an RST review.

MR. BROOKS: I want to go online. Demian Chapman. I see your hand up so let's see if we can bring you into the conversation.

MR. CHAPMAN: Thanks very much. My name is Demian Chapman, Mote Marine Laboratory. I just wanted to echo and agree and say ditto to Sonja's comment. Just to add that at Mote Marine we survey the shark fin in Hong Kong. Since 2014 we have new data all the way up -- on the species composition up until the beginning of the pandemic.
-- information with the -- which your group presented if that helps in deliberations with the RST. Just to answer the question, the CITES trade database is completely open. I just looked it up
myself. On the CITES website you can see all of the reported trade including from the United States.

I was surprised it says only eight instances of hammerheads being traded between 2014 and '21. That's what it says in the site. And yeah. That's more or less all I have.

MR. BROOKS: Great. Thanks Demian.
Sonja. Do you want to get back in here?
MS. FORDHAM: Sorry, yeah. Quick follow up. We're actually doing a review of the CITES -- my colleagues and I are doing a review of the ICCAT parties and their various obligations for CITES listed sharks and rays. And that we'll have at least some preliminary findings at the animals committee meeting. But to Rick in general, some of the obstacles in making sense out of it is that you can see the trade, but particularly for Latin America, you can't tell if it's Pacific or Atlantic and they have different obligations. Mostly stronger for ICCAT than IATTC, so hard to draw strong conclusions except for places like Trinidad and Morocco.

And we're also struggling with you know,
there's quite a volume of hammerheads reported by Mexico, and Mexico not reporting all their trade apparently. But the problem with pointing out that a country doesn't have sufficient conservation measures or public NDFs without discouraging countries from reporting trade. So there's a lot of spotlight on Mexico because they're reporting a lot of trade.

And this is -- I mean, I welcome your guidance off-line but, how do we not discourage reporting and you know, make that a problem. But there's difference in oceans and we're going to point out the -- I think they're conflicting inadequacies in both ICCAT data and CITES data and how do we resolve that. So stay tuned. Thank you.

MR. BROOKS: Okay. I am looking around the room and online. I'm not seeing any other cards up. Is there any last comment from anybody or questions?

Okay. If not then just thank you both very much. I appreciate it and we'll see you again. Thanks.

MS. COGLIANO: Thank you for the
opportunity.
MR. BROOKS: Thanks. Bye.
Okay. So we want to shift now to Amendment 15. And we will spend the rest of this morning and a good chunk of this afternoon talking about Amendment 15. We will take it in chunks as I mentioned this morning.

So in a moment we'll hand it over to Steve who will give us -- will focus first on the spatial fisheries management part of A15 and we'll have a pretty detailed presentation on that. If we have time for clarifying questions before lunch, we'll pick that up.

And then after lunch we'll come back and continue on in conversation on spatial fisheries management. Again, any clarifying questions and just starting to open it up for discussion, comments, and get a sense of what you all are thinking as you look at this amendment.

Then later in the afternoon we will pick up the electric monitoring cost allocation of A15. Again, presentation and discussion. Just to state the
obvious, I think the HMS staff is keenly aware of the interest of this, the importance of the topic. Trying to create a good chunk of time here to be talking about this.

I want to sort of emphasize just a couple of things before we get into it. One, you know, goals for today are one -- there's a lot in this amendment. It's dense. It's complicated. And I want to make sure folks first of all understand what's in the proposed rule.

So we want to make sure we're taking enough time you know, to let Steve sort of lay that out, see what questions you have, make sure we're all sort of clear on where it is. So you know that old clarifying question thing which worked really well this morning. We'll do that.

Also I just want to emphasize that this is the start of a process with a number of opportunities for feedback and public comment. There will be webinars and public hearings over the summer. A public comment period until September 15th. And then discussion back with the advisory panel in September.

So you know, please just sort of keep in mind, lots of conversation to come. And just as you dive into the conversation you know, just make sure you're clear on what the rule is saying, help HMS understand your concerns, and candor and clarity is appreciated. And of course, with our usual mix of you know, engaging in a way that's respectful and productive.

I think that's it. I'm going to hand it off to Steve to open us up on to spatial fisheries management. And again, I'm going to let Steve walk through his whole presentation just so he can just sort of like lay it out and then we'll open it up for clarifying questions.

To you.
MR. DURKEE: Awesome. Thanks Bennett.
I appreciate that lead in. It definitely saves a little bit of time with the opening here. It's definitely a complex action, this amendment. And Larry and I appreciate you guys spending some time you know, talking through it and getting some details on it.

It is complex. There are a lot of moving parts. So I think that, as Bennett kind of alluded to, it's good to think of it as two separate components, at least initially. There is some overlap but for initial communication it's best to think of it as two broad components.

We have the spatial management portion that considers the modification, data collection, and assessment of four spatial management areas. And then second is the pelagic longline EM cost allocation. Considering how to shift some of those video review costs and cameras in the EM program from the agency to the industry. And that's what we'll focus on this afternoon. But we'll stick with the spatial portion for now.

So as a little bit of a road map of where we're going to go, first I'll give you a little bit of purpose and background on this portion of the proposed rulemaking. We'll dive a little bit into HMS PRiSM. I know we discussed it in a couple past AP meetings, but kind of give a little refresher on how we use this new tool to support this amendment. And then dive
into the organization, the DEIS as well as the preferred alternative package. It's really the meat of what we're proposing with this amendment and get some discussion flowing with that.

So you know, kind of taking a step back. Currently there are large areas in both the Atlantic and the Gulf of Mexico that restrict or prohibit long-line fishing, either bottom longline or pelagic longline. Some of those have been in place for a long time. Some more than 20 years, some approaching 20 years. And the goal was to reduce bycatch. Specifically things like sea turtles or undersized swordfish, billfish, sharks, and other species that were of concern at the time of implementation.

Now throughout the whole presentation, I'm going to use "bycatch" more generally than is legally correct. Bycatch and incidental catch are different, but just for ease of communication we're going to talk specifically about bycatch to cover all species that are unintentionally caught whether they're kept or not by a fisherman.

So I don't want to gloss over the fact
that closed areas can be really effective at preventing interactions between certain species and certain gear types. It's really an effective management and conservation tool. However when you have these areas in place, you're reducing fishing effort in that area and thus there's a decrease in fishery generated data from that area.

And so why is that important? This fishery generated data is referred to as fishery dependent data. This is data that is collected during normal fishing operations. Think observer reports or logbooks. Fishery dependent data is super important. It's the most cost effective. Fishermen are already out there on a platform fishing, so the data collection is already there.

It's also highly relevant to assessing normal fishing impacts. If you want to know what a bottom longline vessel is going to catch on their bottom longline gear, it might not be the best idea to send a NOAA research vessel with hook and line to see what they're catching. It might not be relevant to a bottom longline question. So that's where the fishery
dependent data comes in. And of course, it also generates a large volume of data.

So without this data, it's difficult to assess if those closed areas are meeting conservation and management goals. And this is important though. Assessing closed areas is important. Just as we want to assess any management measure to see if it's still meeting the goals not only for why it was originally implemented, but what use it has currently with current conservation and management needs.

So some of these closed areas we're going to talk about today have not been evaluated for effectiveness because we don't have the fishery dependent data to really answer some of the questions we may have. But since implementation, there's been a lot of changes.

Obviously the ocean is different. We've spoken a lot about how species distributions are shifting. They're in different areas earlier in the year or in different areas entirely, we haven't seen them before.

The distribution, not just of HMS, but
also the bycatch species are different as well as the species in need of protection. Back when some of the pelagic longline areas were put into place we weren't so concerned about shortfin mako sharks on pelagic longline the way we are now. So some of our management concerns have changed as well. And we also have new fishery management tools. Think circle hooks, or live bait restrictions, other ways to reduce bycatch.

Now this is important for any fish stock or any fish species of course, but I think it's particularly relevant for this group and for HMS. HMS and these pelagic bycatch species we're talking about are particularly sensitive to ocean conditions rather than less variable you know, less variable bottom habitats. They more readily move with changing ocean conditions to follow those temperature envelopes or prey species into different areas. So really assessing where these HMS species are in relation to the closed areas is important.

So in the context of that, climate change, shifts in species distribution, these static fishery
closures that are in one place could result in a mismatch among all the different conservation goals whether it be original conservation goals, current conservation goals, ecological conditions, as well as management needs we may have right now.

So more formally, it kind of brings us to the objectives of Amendment 15. Minimize bycatch and bycatch mortality to the extent practicable but also optimizing fishing opportunities. We want to find ways to collect data out of these areas in order to evaluate and assess how they're doing and also broaden the way we think about spatial management. Include things such as how variable -- not just HMS, the species but also the fisheries that target them.

We want to reduce user conflicts and gear conflicts, encourage data collection and regular evaluation of these areas but also consider climate resilience and environmental justice. Where these areas are off the coast of certain communities restricting access, can we find a way to think around other ways of improving access for different groups in different areas.

So we want to evaluate the effectiveness of longline closed areas in meeting ecological, social, and economic goals. And also consider modifications as needed to continue to meet those conservation and management goals.

And here is just kind of a big overview of the four areas we're going to talk about. In red up here is the only bottom longline area, the Mid-Atlantic shark closed area, closed the first half of the year, January 1st through July 31st. And the remaining three are pelagic longline areas.

In green is Charleston Bump, closed from February 1st through April 30th for pelagic longline gear. And the blue one in the Gulf of Mexico, DeSoto Canyon and the grey area off of Florida, the east Florida coast closed areas. Those are also both pelagic longline closed areas, but they're closed year round.

Okay. So as promised, we'll just do kind of a quick dive back into HMS PRiSM. This is the spatial modeling tool we created to support this rulemaking. And let's start with that kind of
circular logic loop we were talking about before.
So spatial management areas need evaluation. So let's start with that bolded area. You need data to assess these spatial management areas. You follow the arrow around though these spatial management areas are limiting fishing effort inside those areas which brings us around the circle to limited data to evaluate spatial management areas back to the bold area again. We need data to assess it.

And we've been caught in this circular logic loop for a number of years. And we want to find a way to break that cycle. And that's really where HMS PRiSM comes in. Finding a way to model and predict where fishery interactions could occur, including within closed areas, to provide some information to begin collecting data and evaluating these closed areas and see if they're actually meeting the goals that we think that they're meeting.

So PRiSM predicts those fishery interactions based on oceanographic and fishery data and the outputs look like this. This is a sample map
of shortfin mako shark in April. It's a heat map. What you'll see is the bright colors up there are areas of a higher likelihood of an interaction between a shortfin mako shark and pelagic longline gear in April. And the cooler colors, the darker colors, are lower probability of that.

So with information like this we can predict areas of a higher or lower bycatch risk for a specific species in specific months with specific gear types including within areas where we don't actually have fishery dependent data, that have been closed completely.

Here's kind of a simplified infographic of what PRiSM does. You have a laptop in the middle. On the left-hand side is oceanographic data. On the right-hand side is observer data and other information. The observer data is what species are caught where and when. The oceanographic data are things such as sea surface height, chlorophyll A, sea surface temperature, those types of things. And we bring them into the model to find relationships between where species are or aren't and those
environmental conditions that surround that. And with that we can have some predicted fishery interaction outputs similar to that shortfin mako shark map in April.

The next three slides might be useful for reference just for later. I won't go too, too deep into them. But just to kind of give you an overview of what you're looking at. That really complicated map in the bottom left, those are positive and negative observations of a specific species.

So in this case, the green are positive observations of a species, and the white ones are negative observations. You didn't see that species caught in a set. For each one of those dots, we know the area of course where it was caught, and also the time, the date of it. So with each one of those observation points, we can connect environmental information such as again, sea surface temperature, or bathymetry, or chlorophyll A. Different ideas into what the environmental conditions were at each one of those points.

And once we have that we can model those
relationships. And that's what's shown to the right there. Those graphs up there are actually the relationships between each one of the environmental variables that are in HMS PRiSM and the probably of interaction with that specific gear type.

That's the interim step. So now we know how the presence or absence of a species interacting with a certain gear type and how it relates to those environmental conditions. Then we can throw any environmental conditions we want to at that model and predict what fishery interactions will look like.

In this case we looked at you know, a recent three-year time period. But perhaps we can even throw future time periods in or predicted time periods and see what that fishery interaction might look like. And then again, at the end it spits out this model output, this heat map similar to the one that we showed as an example for short fin mako sharks.

So I definitely, highly, encourage you if you're interested to jump into the A15 home page website. It's got a lot of information in there. The
first place to stop is the story map we created. It really goes step by step through, not just PRiSM and how it works, but also this DEIS and the proposed action.

There's also the PRiSM manuscript that was published in a peer-reviewed journal as well as an accompanying explainer website too, to really walk you through what that looks like and what the specifics are of PRiSM. And for ease of access, there's a QR code to take you to the home page as well as a tiny URL also to make it easier to communicate this long URL text string. So hop into there and you can look at some of that information as well.

All right. So that covers the background information. Now we're going to jump into the actual meat of this, the DEIS. And you know it's going to be complicated when I'm going to start with this really complicated flow chart. But it's important though. The way that this is laid out is really different than other DEISs we've done in the past. But it provides us some flexibility.

Each one of these areas we're looking at
are different with different goals, different fisheries happening in there, different time periods. We don't want a one size fits all solution. So the way it's laid out is to provide some flexibility, to bring some different solutions into each one of those areas.

We have a set of A alternatives, they're in yellow. The evaluation and modification of spatial management areas. And green are commercial data collection programs. And then in blue the C alternatives, evaluation, timing of spatial management areas. That's a way of making sure we don't get in the same position we're in now some point in the future.

The way we're looking at this is like a real simple analogy. This is like a menu selection. The A is your appetizers, B are your entrees, and C are your desserts. So on your right-hand side for each one of these spatial management areas, Mid-Atlantic, shark closed area, Charleston Bump, East Florida coast, DeSoto Canyon, we can choose from that menu and see what fits best for that among the
appetizers, entrees, and desserts, to create a customized suite of solutions for each one of those areas. It's complicated, but it gives us some flexibility and I think it's a benefit of this approach.

All right. So let's look at the A alternatives. Before we get to look at the maps, just to kind of give you an idea of how we developed these, another flow chart. So the blue box at the top is the current closed area. What we did is we combined all of these HMS PRiSM output maps for all of these different species and different months and combined them with some other information such as areas of gear conflict or important ports or even bathymetric features to create a range of modification options to these areas.

This is the more qualitative process of it. This is really eyeballing it and getting some expert opinions in and creating a suite of modification options, up to a dozen in some cases, of different ways that we can actually change and delineate high and low bycatch risk areas within each
closed area.
Once this qualitative process is done, we get back into the more hard quantitative idea of HMS PRiSM. HMS PRiSM includes some metrics to measure not just the conservation value of a certain configuration in time and space of a closed area, but also the efficiency of protection. And with that we can take all of these management options, run them through the HMS PRiSM metrics and find the best options that actually turn into alternatives.

So yes, we had you know, a dozen different modification options but in the DEIS we only look at four or five actual alternatives including that no-action alternatives.

All right. So that's all conceptual. But let's look down to the actual maps of what it looks like in the DEIS. Then we'll start with the Mid-Atlantic shark closed area.

And the next several closed areas will all kind of match this same format. On the left is the no action, that's the way it exists right now. That cross hatch area is the current footprint of the

Mid-Atlantic shark closed area. And again, closed from January 1st through July 31st. And then the other maps are some different alternatives with some changes in both space and time of that area.

And the preferred alternatives there is on the far right. You can see here on the eastern edge right here, an expansion of the footprint of that area to kind of protect that 350 meter shelf break but also shifting the closure up by two months. Instead of being closed from January 1st through July 31st, November 1st through May 31st.

And this is a really interesting result of PRiSM. These places, when they were put into place back in around 2005 or so, they did a good job of protecting dusky and sandbar sharks among other species. But since then we've heard from fishermen and researchers that say it's just mis-timed; the sharks are showing up earlier and they're leaving earlier. It's not optimally protecting those species.

And PRiSM really showed that. With all three of these different options, shifting that closure up by two months did provide some stronger protection for
this bycatch species.
So then we looked at the alternatives. Anything in red, that would be areas that we could identify as high bycatch risk areas. Areas where we want to be particularly careful when we're collecting data because the risk of bycatch is high.

Jumping into Charleston Bump. Again kind of the same configuration. The left-hand side is status quo, that's the closure from January 1st -- or excuse me -- from February 1st through April 30th, and then some different alternative options for modification in space and time and delineation of those high and low bycatch risk areas.

The preferred option is highlighted in yellow. That's where we actually have a diagonal bisect across the middle of Charleston Bump. The in shore area would become a high bycatch risk area. And that would be a high bycatch risk area year around, not just from February 1st through April 30th. And then the area off shore, that unshaded cross hatch area would be a lower bycatch risk area during that same time period of the current closure, February 1st
through April 30th.
East Florida Coast. Very similar, the only difference you'll notice is that two of the alternatives have different timing components. The high bycatch risk areas would change during certain portions of the year. That's why there's two maps under there. But the preferred alternative matches more closely to the one for Charleston Bump. That inshore area would be a high bycatch risk area year around, and that offshore unshaded cross hatch area would be a lower bycatch risk area year around as well.

And then finally, DeSoto Canyon. Same kind of idea but this is a little bit different as well. Really focusing in on the status quo alternative. If you can see it up there, those two boxes, seem to try and protect that shelf break right there including the actual DeSoto Canyon bathymetric feature in that northern box.

And you can see, using two boxes to kind of protect that sloping area, isn't real effective. We also know Rice's whale is in that corner of that
box -- let's use the laser pointer again -- right in this area is some critical habitat for the endangered Rice's whale as well. So maybe this isn't protecting it as well.

So rather than sticking with inside the current footprint, what we're preferring is a bit of a redesign. Actually extending beyond the footprint. And this would create a parallelogram to better protect you know, those different components we were just speaking about and turning that area into a high bycatch risk area year around. And then all of those different corners of the current closure into the low bycatch risk areas.

Okay. So now on to those entrees. The commercial data collection programs. We've now delineated in each closed area some high bycatch risk areas and some low bycatch risk areas. Areas where we're more concerned perhaps about bycatch and areas perhaps where we're less concerned about bycatch. How do we connect some data collection programs with those areas?

So some of these data collection programs
would be implemented in some times and areas that were previously closed to fishing. But the level of bycatch risk, again, that delineation of high and low bycatch risk would kind of inform what kind of data collection program we would put into place.

So areas of a lower bycatch risk, perhaps we could do a more permissive data collection program. Whereas in areas of a higher bycatch risk we'd definitely be more precautionary and have a limited data collection program not to jeopardize any of our conservation goals.

So jumping into the alternatives. No action of course, which is preferred in some areas. Alternative B2 is not preferred but it was one of our options. It's a spatial management area research fishery modeled after the shark research fishery where fishermen would apply to the program, and they go out and fish in closed areas under a scientific research plan. I won't spend too much time on that since it's not preferred but it's one of the options under there.

Then one of the options that is preferred in a couple of areas is a monitoring area. And I want
to stress that this is a special access area for data collection. And the idea is that commercial vessels would be authorized to fish in certain areas and times to collect data, but we would have strict effort and catch controls to avoid jeopardizing conservation goals.

We'd also have real-time reporting of
select bycatch species after each set and again, this is a special access area, so NOAA fisheries could reserve the right to close and/or not reopen that monitoring area if something just feels funny. If we're seeing bycatch that's way higher than we thought. If we're seeing overly clustered data collection efforts. Anything that doesn't seem right, we can actually close that off to make sure that we're not jeopardizing our conservation goals.

So to that end, we have six sub-alternatives that are all listed there in those text boxes of ways of ensuring that we are limiting effort, limiting impact to bycatch species but also getting good data out of it. And I'll focus on the two boxes that are outlined in yellow. These are some
alternatives that are preferred in the monitoring areas.

One are effort caps. So in each area, if we had a monitoring area, there's a certain number of sets that can be deployed when that monitoring area is effective and once that number is hit the area is closed until it resets at the next cycle.

Then there is also electronic monitoring with cameras in the vessel. Currently right now a subset of that video is being reviewed. In the monitoring areas, 100 percent of the video would need to be reviewed at the expense of the vessel owner that's choosing to go into that monitoring area.

And then also, vessel operators would need to report effort and catch within 12 hours of the end of each set. Similar to bluefin tuna, but the number of species would increase again, specifically in the monitoring area.

And this portion right here at EM, this is the major overlap with later portion we'll talk about with the EM cost allocation but again for now I think it's helpful just to think about it separately.

Then the final data collection alternative that is also preferred in several areas is a cooperative research via an EFP. And this is very similar to our current EFP program but what we've done is analyzed some different research plans that could come in. And in order to be consistent with this analysis, that research plan needs to incorporate several components. And those components are listed out there in those sub bullets.

There needs to be an effort cap, it's actually even lower than the monitoring area effort cap to make sure that effort is not that high. Bycatch caps. So for certain species if we hit a certain number of bycatch interactions, all research in that area ceases. We need to have some reporting mechanisms in place to get some real-time reporting to NOAA fisheries.

Some combination of 100 percent observer or EM coverage. Applicability of study design. It needs to be applicable to management questions that we might have. They need to incorporate some exclusion areas in there. So look in the area where the
research is going to occur, identify areas of high bycatch risk where may the research should not occur. Maybe areas of user conflict or gear conflict and stay out of those areas as well.

Add in fleet communication. All of the different participating research vessels need to communicate among themselves if they're finding areas of high bycatch or any bycatch at all and stay out of that area to make sure we're not jeopardizing conservation goals.

Okay. On to the -- actually one more note on that one. With the EFP, so those are some components that a research plan needs to have to be considered consistent with these A15 analyses. But by no means does that mean that we have to actually grant that EFP if it meets that. Each EFP application is considered on a case by case basis.

Okay. Jumping into that last group, those dessert alternatives, the $C$ alternatives. These are the ones that make sure that we're not getting into the same situation we are now in the future. So rolling through these. This is a way of making sure
that we're continuing to assess these areas into the future.

We have a no action alternative and then C2 and C3 are some different timing of the same idea. C2 is, once we have three years of data out of these areas, let's evaluate it and see how A15 is doing. And then continuingly, after that latest assessment and we have another three years of data available, let's do it again. $C 3$ is the same idea but it would be for five years of data.

C4 is a triggered evaluation. Regardless of any timing components we put into place, if we see a reason we want to evaluate earlier, there's a triggered evaluation option as well. And then finally a sunset provision. Something we've heard from the fishery in the past is that once a closed area is in place put a sunset on that area where it disappears.

In this case, alternative C2, three years of data to begin an evaluation and a triggered evaluation are preferred across all four areas.

All right. So after all that talking, this is the meat of what we're actually proposing of
the spatial management portion of A15. And again, this is where we're taking the selection of alternatives from $A, B$, and $C$, and customizing a fit for each one of the spatial management areas. There's four spatial management areas. And we'll go through it one by one.

So first we'll start with the Mid-Atlantic shark area. Again we're proposing to change the high bycatch risk area, both footprint and timing, including some of that area off shore -- Excuse me on that one. Pushed the wrong button -- right here. On that 350 meter shelf break. And in that entire area in red would now become the Mid-Atlantic bottom longline restricted area. A slight change in the name of what it's named now to be more clear that it's specific to bottom longline.

We would also shift that timing. Currently it's you know, the first half of the year, shift it up by two months so it's November 1st through May 31st.

In that high bycatch risk area it would be no action for data collection. We would continue the
data collection programs we have now, including the shark research fishery and fishery independent surveys. And there is no low bycatch risk area identified here so no need for a data collection program there.

And again, the evaluation timing is once three years of data is available and then continuing every three years after that and a triggered evaluation as well.

Moving on to Charleston Bump. Again that preferred management option is to delineate high and low bycatch risk along that diagonal bisect. The in shore area would be a pelagic longline restricted area closed to pelagic longline year around rather than the current timing of February 1st through April 30th. But then the off shore area and that low bycatch risk area become the Charleston Bump monitoring area from February 1st through April 30th.

In that high risk area, in that near short in the red, the data collection program would be cooperative research via an EFP. Researchers could come to us with an application and if it met those
criteria we outlined, it would be consistent with the analysis in A15, and we would then consider on a case by case basis whether that's an EFP we want to grant for data collection.

Then in the off shore monitoring area there in yellow, a monitoring area for data collection is preferred. With the sub alternatives of effort caps which would be 69 sets between February 1st and April 30th. Once that number of sets is reached the entire area closes until April 30th and then it becomes a normal fishing area as it does now. And then also a sub alternative that would require electronic monitoring. One hundred percent review of that video at the vessel owner's expense. And note that in that monitoring area, it would be open to normal commercial fishing again from May 1st to January 31st outside of those areas.

So two notes on the monitoring area. Again, it's a special access area for data collection. If something weird is going on, we have the ability to close it down in this case in between February 1st and April 30th, and/or not reopen it if we need to
that following year.
Also, as Randy was discussing on some monitoring areas in the Gulf of Mexico that had a triggered action if we didn't actually close them. There is no triggered action with this. This would be set with rule making. It would only be changed with future rule making if we're seeing -- after those evaluations occur, seeing how these things are doing at meeting our management goals. And the evaluation timing is the same, every three years and triggered evaluation.

I'll note as well in that monitoring area that EFPs can be used as well to actually go in there and collect data outside of that commercial pelagic longline fishing data collection.

East Florida coast is very similar. It's essentially the same without that tiny component of the monitoring area. The monitoring area would be in effect year around. So that red area would be pelagic longline restricted area, again closed to pelagic longline year around. And in yellow would be a monitoring area year around as well.

With effort caps, 124 sets per year. Once that's hit it's closed for the remainder of the year. And electronic monitoring requirements also for 100 percent video review. And in that red area and in the yellow area, cooperative research via EFP could be used as well. And then again, the evaluation timing every three years and triggered evaluations.

So I wanted to take a little bit of a tangent here as well. When you combine that red area, that pelagic longline restricted area in Charleston Bump with the one for East Florida coast, we can create a new single pelagic longline restricted area that is closed year around and is a single closed area. So for ease of communication, those two vertices at the north end of the East Florida coast and the southern end for Charleston Bump match up and that is the proposed South Atlantic pelagic longline restricted area. That's where pelagic longline would be prohibited year around.

Okay. Jumping into DeSoto Canyon now. So again, preferring that parallelogram that better protects that shelf break as well as that Rice's whale
habitat. That red area would be a year around high bycatch risk area where pelagic longline is prohibited again, year around with some options for cooperative research via an EFP in that area.

All those different corners of the unshaded cross hatch area, that becomes low bycatch risk area. And we're not preferring any kind of data collection program in that area. That area would be open to normal commercial pelagic line fishing year around without any different restrictions than other open areas. And again, that timing evaluation is -we'll look at it again after three years of data are available or earlier if conditions warrant.

So what do the impacts look like? So ecological, I mean generally they're neutral to minor beneficial. Because it's a more efficiently designed closed area for conservation protection but still allowing some data collection. We're also not expecting any large changes in effort. A lot of these changes are somewhat minor as well as market conditions are really dictating effort. So I don't think a lot of these are going to change effort to a
large degree.
For social and economic impacts in the Mid-Atlantic area, again, that bottom longline area kind of off North Carolina coast, we're expecting neutral social and economic impacts really because there are minor changes as well as low effort in the area.

Then for the pelagic longline areas, neutral to minor beneficial economic impacts due to our calculated changes in target catch. For Charleston Bump the change is a positive increase of 236,000 across the fishery. East Florida coast is a positive change of 38,000 across the whole fishery just due to target species changes.

And DeSoto Canyon has got an asterisk here. Using that methodology we calculated a negative change in revenue for that pelagic fishery based on that target catch. But we don't think it's going to be realized. Because of these changes we're not going to force any fishermen to go into an area of lower target catch. So because of the intricacies of the way that we calculated that target catch, it's more
geared toward calculating positive changes and not negative changes.

It's unlikely a fisherman is going to be forced to go fish where there's a lower CPE. So we don't think that that negative revenue balance is going to be actually realized by fishermen.

All right. So what do all these things together do in change of scope. So scope is a term that we've developed for this action. And scope is a way of measuring you know, how "big" these areas are.

You can't use just square mileage to assess how good an area is.

We had closed the entire EEZ for one hour out of the year and it would be a massive closure by square miles, but it wouldn't do much for conservation at all. You've got to have a timing component with that. So that's what scope is. It's the area, times the number of months of a closure, gives you the scope.

So what do these proposed changes do to each one? So for the Mid-Atlantic shark area in red, it's a 14 percent increase in the scope. Again area
times time. Charleston Bump is 121 percent increase. East Florida coast is a decrease of 26 percent, but again that's more than made up for by the changes in Charleston Bump. And DeSoto Canyon has an increase of five percent of a scope change as well.

Touched briefly on some E alternatives which are changes in some regulatory provisions for spatial management areas. Currently in our regs, in the 635 regs, we have some considerations for adjustments to time/area closures and gear restricted areas. And the $E$ alternatives consider updating that regulatory text to consider regular review of those areas, add some high-level design elements when creating or modifying these areas, the timing of evaluation of data collection areas, et cetera. And the specifics of those are actually in the DEIS and proposed rule for interest and what that reg text looks like. But I do want to stress that adoption of this preferred alternative would not result in any short-term changes. It would be future rule makings that would use those changes to consider how to modify any of these areas.

And so those alternatives are listed below. And again, we're preferring to update that regulatory language related to spatial management areas.

So in conclusion, these preferred measures, we think it helps kind of hit some of our dual mandates under MSA. It helps achieve these MSA mandates of ensuring sustainability of fish stocks and protecting bycatch species but also optimizing fishing opportunities.

It responds to directives that consider climate change impacts. It responds to -- it also considers ecosystem based fishery management objectives. We're not looking at single species management, we're looking at multiple species management all at once.

It response to environmental justice directives, looking at different fishing communities that are cut off from access based on their location. And the new configurations of these areas could provide greater conservation value than status quo, particularly in the context of the shifting
distributions of the HMS target species as well as bycatch species due to changing ocean temperatures due to climate change.

So up here is just some next steps information. Comment period closes April 15th. This is a super long comment period. We know this is complex. We want to give plenty of time for input and considering --

MR. REDD: September.
MR. DURKEE: Thank you. I just want to make sure you guys are listening and I know Larry is so that's good news at least.

There's a -- you can submit comments through our A15 website and again, we've got that tiny URL and a QR code for easier access and some of the information that you can find on the website is listed below. And there is a lot more information on this website than usual and I think it's worth trying to take a chance to go in there and look around.

And depending on our timing right now, a very loose guide for discussion perhaps.

MR. BROOKS: Great. Thanks so much,

Steve. So we have about 15 minutes, maybe a touch more before we go to lunch. What I'd like to do is use that amount of time and probably sometime after lunch too just to get some clarifying questions out here on the table. And I think there's sort of three categories that $I$ would invite you think about.

Sort of one, the PRiSM process, do you have questions about how that process is driving and forming what was just shared. A fairly complex DEIS alternative structure and just making sure that you're clear on what that structure is and again clarifying questions around that, and then how the spatial modifications were developed.

So just want to make sure we're all understanding, tracking, you know what Steve just presented before we get into the, "and so what do you think about it" portion of the program.

SO with that, let me just open up for some clarifying questions. Again, I'll start online and then bring it back into the room and if we need more time after lunch for this, do not worry because I can already see we'll probably never get through all the
cards before lunch.
So let's go online. Go to Charlie
Bergmann first and then Christine.
MR. BERGMANN: Clarification --
MR. BROOKS: Yep. Go ahead.
MR. BERGMANN: First of all, I want to thank the agency for forwarding this PRiSM stuff. The fishing industry has been using satellite imagery, geographic features now for 30 years, anyway. And I'm glad to see that the agency has finally caught up.

Can we go to slide 39 please? I'm not -I just have to clarify here. When we move this -what's it called, parallelogram -- out away from the western portions of the lower DeSoto Canyon closed area. That encompasses the total fishing area for a large segment of the Gulf of Mexico fishermen.

So while you say you don't think that 224,000 would be realized in losses, the men that fish in that area, they're going to have to relocate. So with that being said, later today can we look at these other options for this closed area? I'm looking to try to mitigate that one little area there.

MR. BROOKS: For sure. That's you know, one of the points of this conversation is to hear what ideas you all, reactions to this and other ideas you want to put on the table, so you bet. Thanks, Charlie.

Let's bring in Christine.
MS. KITTLE: Hello. I have a couple of questions. So first, $I$ have a question on the EFP process and how it's different than the current one. Will it still allow for public review and comment?

My second comment would be specific to the PRiSM methodology and scoring. Specifically looking at the areas off of Florida. The matrix 1 seems to be where a lot of the differences in the scoring between the alternatives occurred. So I was wondering if someone could kind of discuss and kind of go through the matrix 1 process and how it compares inside and outside.

And let's just go with those two for now.
MR. BOOKS: Thanks. Go ahead.
MR. DURKEE: Yeah. Thanks, Christine. So we'll start with the EFP question first. So it
closely follows the current EFP process. So what we're doing is we analyze environmental impacts upfront, we're providing an opportunity for public comment at that stage, included for the NEPA analyses. And then we can consider each EFP application on its own merits and decide whether or not it actually fits with our management goals. So that's how it will most closely match our current process with more typical EFPs.

The only difference would be that we have all these additional conditions that would need to be incorporated in order to be consistent with this process. So for instance, if a researcher came to us and they said, your effort caps are too low. We can't have that in this research project. It doesn't fit under this analysis and needs to go through a NEPA process again, out for public comment, et cetera.

But if they're able to work these conditions in, then it is consistent.

So speaking specifically to the East Florida coast, can you elaborate what you mean by matrix necessarily? Are you talking about the actual
metrics, how we're measuring each one of these?
MS. KITTLE: Yes. I'm sorry. Yeah. Matrix 1, I guess looked at kind of efficiency, as far as I understand it, of what the -- how efficient the high bycatch risk is compared to the outside area. What $I$ don't understand is how the alternatives, when you take out an area, say alternatives A3B, that what you're calling low bycatch, which area is incorporated in the comparison.

Because from what $I$ understand, the outside data is based off of actual pelagic longline data and so $I$ don't know how you can combine two different kinds of data sources to do that comparison accurately.

MR. DURKEE: Yeah. No. A hundred percent fair. So I understand what you're asking. So given terminology considerations, it's the metric score 1, which again I would encourage you to go to the story map to get some background into that. I hate not answering questions, but to get into the metrics would literally be another hour of a conversation which we can absolutely have offline with anyone that wants to
talk about it. But it literally would be a very, very long process.

Do you have like a top line way that you want to just summarize metrics or something that we can just discuss offline?

MR. CREAR: I think for right now, I think it would be better to do it offline since we don't -because like you said, it's going to take time for us to explain it. And like Steve said, the story map will go into detail and the DEIS will, obviously will go into even a lot more detail than that.

But yeah. I think offline will be easier and more clear.

MR. DURKEE: That's great. And Randy's mentioning that this afternoon could be an opportunity to dive into it as well a little bit.

I would note, use that story map. But then also, these metrics were in the manuscript that was peer reviewed as well as the CIE review of portions of the DEIS. And everyone that we've spoken to so far agrees that it's a pretty robust way of looking at these model results. And so we've got
pretty good confidence in it.
But again, we can talk about details when we have some more time to do so.

MR. BROOKS: Thanks. Let's go to Alan Weiss for a clarifying question and then we'll come to the room.

MR. WEISS: Thanks. First of all, I'd say unfortunately you guys put the cart before the horse with this whole presentation because all of these areas and alternatives and sub-alternatives are interesting to contemplate but all of them are highly dependent upon the answers to the questions about the fees that are contained in the next segment. So it's hard to do much with what's been presented so far until we know the context --

MR. BROOKS: Alan, can I ask you to -Alan, I would like you to focus on a clarifying question if you could.

MR. WEISS: -- One thing that I'd like to ask especially related to the slide similar to the one that's up now is, would it be possible to have a combination of sub-alternatives so that the high risk
area would shift during different parts of the year to enable some of the data collection, or more of the data collection to occur over a larger area and over a broader time period?

MR. BROOKS: Thanks.
MR. DURKEE: Thanks, Alan. And I don't want to gloss over your first point. I understand that that is a very serious issue and we're going to dedicate some time to it. And I understand that thinking about this in the context of EM cost allocation, it produces some complications and I understand that.

But focusing specifically on your question with this one. Yes, that's why we're out for public comment is to look at -- to show you what we're preferring, what the preferred other options could be, other alternatives could be that we could select. And then if there are some other ones that we didn't necessarily look at exactly, if it fits within what we've analyzed, perhaps it could be an option moving forward as well.

But again, that's the whole point of the
public comment process.
MR. BROOKS: Thanks. Let's come into the room. I've got -- we'll definitely want to push this post-lunch too. I've got at the moment Martha, Greg, Dewey, Peter, Mike, Matt, Allie, and Tim.

Martha, we'll start off with you.
MS. GUYAS: Thank you. And thank you for this presentation. I thought it was very helpful. Lots of reading to do but that's okay.

So my question's on PRiSM. In selecting the species that you were looking at for bycatch and incidental harvest. Can you talk more about specifically what those species are and did this include the -- I mean, does the model analyze council-managed species that are bycatch and incidentally caught, like dolphin or groupers, and PLL or bottom longline fisheries, and the impacts there?

MR. DURKEE: We've got a pretty good, robust outline of how we selected species. And it was hard because you want to include as many species as possible, but you start getting too many it becomes more difficult. You have to have a smaller universe
of species to care about. So how do you narrow it down? We've got some criteria to be able to do that.

The other problem too is with PRiSM, you have to have a certain sample size to actually robustly predict what fishery actions would look like. So there are some species that we might really care about but you just don't see them in pelagic longline sets very often so you can't model it.

So that brings the question of, if you don't see it very often, is it really a huge impact? We don't know. So really, that's where it kind of helps us narrow down the species we care about. So for council-managed species, for target species, no they weren't modeled. And HMS target species weren't modeled either.

We looked for impacts for instance swordfish as well, for HMS, but we didn't look that in the model itself. It's more bycatch species that we care about. So what bycatch species do we look in?

So for pelagic longline, it's shortfin mako shark, leatherback sea turtles, loggerhead sea
turtles, and then the four billfish species combined into a single group. And you can see, it kind of runs the gambit of different concerns. Some are ESA listed, some are not. Some of are over fishing, some are not. And yeah. So there's just different concerns on different ones.

Billfish being one that has more community importance. Whereas, this is not specifically regulating the recreational fishery. There's interest from the billfish community as well. So how do we incorporate some of those concerns as well? So that kind of helps narrow down the species list.

So I'm not sure if that answers your question or not, but --

MS. GUYAS: I think it does.
MR. BROOKS: Thanks. Greg? No, you good?
Dewey.
MR. HEMILRIGHT: Well I know we ain't got four or five days here to look at this stuff. I don't know how to say this nicely.

MR. BROOKS: Let's go to lunch.
MR. HEMILRIGHT: Yeah. I mean, this is
just a massive undertaking that $I$ almost see to be a failure because you're trying to model something -- so basically, give me a 1-800 number that I'll call you and you tell me where to go fishing, right? That's what it basically boils down to. Where's the bycatch caps at on here? What page is that on?

Go to slide 41 if you would please. And this has to do with the Mid-Atlantic shark closed area here that you expanded for two months. And when you look at this picture here, there's one research vessel off North Carolina. And I venture to say this covers from 34 degrees down off North Carolina, South Carolina line all the way up to about 35, 40.

And that research vessel that I know personally has never fished down there off the shoals of Cape Lookout or that further. So your analysis here of looking at this stuff, it is just off. And the part of, is how much more -- we can't take no more. We can't take paying $\$ 300$ for a set -- for somebody to go watch a video camera.

I mean, how much more shit do we got to take of what's put on the pelagic longline industry?

I mean, this is just ludicrous. We've been asking for looking at going in to closed areas for 20 years. And looking at new gear with circle hooks or something like that.

This stuff that you come out here is doing nothing but making us a freaking guinea pig to go out and go look at these areas and all this other high-tech type of stuff and making sure our vessel monitoring system works. I mean, it's -- you know, I'm glad I don't -- I have a limited area where I fish now and you all have helped me out by doing that, thank you.

And so a lot of this other stuff, I don't know how people are going to make it or do it because I mean, where's your bycatch caps. It's like maybe one fish and you can be put out of areas. Is that not the truth? That's not the truth? One dusky and you can be put out of an area or something like that?

MR. BROOKS: Dewey, I do really want to focus this on clarifying questions and obviously you're --

MR. HEMILRIGHT: Okay. I've got one
clarifying question.
MR. BROOKS: Please do.
MR. HEMILRIGHT: Here in the Mid-Atlantic, how many sets has research fisheries made in this area that you got where you increased the area by two months?

MR. BROOKS: Thanks.
MR. HEMILRIGHT: This closed area.
MR. BROOKS: Thank you.
MR. HEMILRIGHT: How many sets have been made from the research fishery that you've gathered your data here from? Thank you.

MR. DURKEE: Yeah. Let me handle them one by one. So this is helpful because I think the way that I'm communicating it to you is not working. Because not all of that is accurate on what we're proposing. I don't think it's exactly how you're framing it. So let me kind of correct a little bit of this.

First, putting aside EM cost allocation, 1 don't want to hide that. That's a very serious cost and we'll talk about it this afternoon. So I don't
want to just push you off to the side necessarily, but just for now let's focus on some of the more specific spatial management questions.

So first question, you know we are here for just a couple of days to talk about it. This is a super long public comment period up through September 15th. And we'll be in Manteo I think on August 22nd as well and we'll talk to people in North Carolina about it all you want to. We'll be there. We're ready to talk about it.

The 1-800 number. This is similar to how you're out there fishing, when you're looking at ocean temperatures, you're looking at perhaps even ROFFS, maps from the recreational side. What we're using here isn't all that different than other fishermen are using other times. It's just using some other attributes into there.

I see you disagree, so we can kind of talk about it a little bit but that's kind of how we're doing this as well. We're looking at bathymetric features, we're looking at ocean temperatures, and that helps the model guide to where these interactions
are.
Now for the Mid-Atlantic shark closed area, we're not expanding it by two months. And that's on me for miscommunicating what it is. It's a shift of two months up. No longer will it be closed the first half of the year. We're shifting the opening date by two months earlier and the closing date by two months earlier. It's the same length of closure just shifted up by two months to better match when those species in the area. And I'll take that on me for not communicating that correctly. And I do apologize about that.

Now also in that area is a bottom longline area that doesn't have any EM requirements at all. No bycatch caps, no nothing. So for those data collection alternatives, we're not preferring anything into there. For specifically the Mid-Atlantic shark closed area, it's simply a shift in timing of two months and there is some additional closure off the east coast to that 350 meter shelf break. That is there as well. But no other different restrictions, no EM, no bycatch caps, nothing in that area.

MR. BROOKS: Thanks. I want to take one more set of clarifying questions and then we'll go to lunch and then we will continue this after lunch. Peter.

MR. CHAIBONGSAI: All right. I actually think my questions are hopefully pretty easy. I don't know, my third one, my third question is a clarifying or if it's for discussion later.

But the first question, I think someone highlighted that this comment are due September something -- 15th. Is the AP going to be meeting before again? Thank you. See easy question.

And then the second question is you highlighted socioeconomic as one of the variables that you're looking at. I'm guessing but I don't want to assume that the variables that you're looking for socioeconomic are made available within the context of that varied volume is reported. Is that correct?

MR. DURKEE: Yeah. It's looking at social and economic separately, not socioeconomic together which sounds like a nuance but it's an important nuance.

MR. CHAIBONGSAI: Sorry. No, I understand where you're coming from.

MR. BROOKS: But it's available in the report.

MR. DURKEE: But it's available in that large report.

MR. CHAIBONGSAI: Okay. Is it -- and I haven't -- I'm seeing the story map now but $I$ haven't digged through it. Is there a more condensed, like an easier way to find things within either the story map or within that document that would help us go through the 600 pages? That would be very beneficial for us, please, and thank you.

MR. DURKEE: Yeah. The story map's going to help. It's kind of a new tool we're trying to use.

MR. CHAIBONGSAI: Okay.
MR. DURKEE: So any feedback you have on that, I'd appreciate it. As we're managing these issues, we also have a lot of legal obligations to meet which creates these very dense, very thick documents. Any help you ever need in targeting on things you're interested in, please contact one of us
and we can target you in on right to where you're looking at. We know these documents inside and out and I do understand though, that 600 pages is daunting.

If I didn't have to write it probably wouldn't read it honestly.

MR. CHAIBONGSAI: All right. And then last question, I'm not sure if it's more for discussion or more for clarifying. I think it's probably more for discussion but I'm going to just lay it out there is, why PRiSM? Considering that there are many models out there and considering that many models created by South East Fishery Scientists. So I'm -- I can reserve that for --

MR. BROOKS: I actually think that's a great clarifying question.

MR. DURKEE: I think it's really helpful.
Let's take a step back for just a second. So HMS PRiSM is different, and this is why it's innovative in other spatial distribution modeling.

What most models you see, what they're doing is they're predicting where a species is located
at certain times of the year. Super interesting. How they're migrating, where they're migrating, where they are at different times of the year. That's important stuff.

For these areas what we want to know is where they're interacting with fishing gear. So as fishermen you know, sometimes you'll put bait in the water. You know your target species is there and it's not eating that bait. So it's not going to interact with your bait. You know it's there. So knowing where that species is doesn't help you answer if it's interacting with your gear.

Maybe a good example would be I'm down in Charleston, South Carolina with Amy Dukes. Just north of us is Bulls Bay which is an important pupping ground for scalloped hammerhead and Carolina hammerhead. Researchers want to find out you know, when they're actually in that area. And one way you do that is putting bait out to collect those sharks.

They're having a tough time. Those sharks aren't eating when they're up there pupping, for good reason. You don't want a hungry shark around with
baby sharks. So their life history traits are such that they're not actually feeding on that bait and eating when they're in those pupping grounds. It makes research complicated.

So if you had a model of where scalloped and Carolina hammerheads are you'd see that in Bulls Bay during certain times of the year but that would not be where they're interacting with gear.

So yes, they're related. Are they the same? No. We want to find out what it is. So that's why HMS PRiSM are in our existing models.

Now that said, it's an important point you bring up. So with the HMS PRiSM output maps and what we're seeing, we did compare them with different models. Different billfish distribution models, different shark distribution models.

We have some listed out there in section 2.9, speaking of helping you navigate, section 2.9 on some areas that we -- some other distribution models that we compared to, and it is similar results. It's not exact because again, it's where a species is interacting with a gear type, not where it is. But
that's why this model is so innovative. That's why it's special. It's not just telling you where a species is, it's telling you where that species is actually taking bait and interacting with the gear type.

MR. CHAIBONGSAI: Yeah. No, thank you. That's incredibly helpful. I appreciate the citation too. I'll take a look at that as well.

And I do want to say thank you for this as well. It's incredibly helpful and obviously you guys took the time and we do appreciate that. But I'll have obviously more follow-up questions later but thank you.

MR. BROOKS: Thanks. I've got about six people on the que, and we should go to lunch. So we will pick that up when we come back. I just will flag that. Obviously this is complex. There is a lot to be talking about and I'm at least sitting here and thinking we're not going to have enough time today to chunk through all of this and understand all of it and get all of your thoughts on the table. So I will reiterate, this is the start and just sort of we'll
have to be thinking about how make sure that you all are understanding this well enough to give comments and that the Agency is able to hear those comments back from you.

So let's all just sort of hold that front and center. Break for lunch and be back here at I think 2:00. See you all then. Thank you.
(Whereupon, the above-entitle matter went off the record at 12:38 p.m. and resumed at 2:00 p.m.)

MR. BROOKS: Okay. So it is 2:00. We want to spend another hour and a quarter hearing from you on the spatial management presentation that we heard from Steve.

We're going to pick up right where we were, which is with the clarifying questions. I think we have about a half a dozen.

I know a lot of people were talking over lunch trying to make sense of this and trying to share some thoughts. And we want to, obviously, keep that going here around the table. That's exactly what this is about. So let's just keep that conversation going.

I've got in the queue Mike, Matt, Ally,

Tim, John, Tom, Martha, and then maybe we'll just sort of round it up. No, not Martha. Okay.

Then, Mike, you're up. And, again, clarifying questions.

MR. PIERDINOCK: Okay. Thank you. I just have a few questions concerning the PRiSM model. It's positive to see that these different factors are being taken into consideration to assess shifting stocks and where they, then, could be predicted to be found and so on.

Does the model include the availability of forage? And, if so, what forage fish? Because I think it's clear you can have all these various factors with temperature and so on, but if the forage isn't there for that forage to be available for these species of concern, then there's going to be a disconnect. So I'm curious if that's in it and which forage fish.

Then, gear types and how you take it into consideration how there's been a change in J hooks, circle hooks, or different means and methods through the years and how the model addresses that.

Then, with the prediction of the shift, I guess if $I$ composed a question as a real-life example of what happened east of Stellwagen back in November, it kind of ties into a lot of different things that makes me wonder whether it's in the model.

Now November, because of increased temperatures, the rec-for-hire and commercial bluefin as well as groundfish community are fishing out in that area during that time of year into December nowadays. What happened in November, the mid-water herring trawlers were out there catching their limit of herring and a few million pounds of mackerel. That removal removed the critical forage fish associated with the different user types, rec-for-hire or commercial, as well as commercial hook-and-line mackerel fishermen, that then impacted them negatively, and the fish - bluefin and other species

- took off and didn't come back for a while.

So I use as an example, does it predict different gear types that are now new and different conflicts that didn't take place back in the day before the increase in temperatures and before those
were fishing on the water now much later into the season than they do now?

So multiple questions there whether the model does take these into consideration and whether there's any - or whether it does.

Thank you.
MR. DURKEE: Yeah. So it's kind of a two-sided question with the forage fish.

So it seems like you're speaking both of where forage fish are as well as forage fish numbers, which are both important questions but different questions.

So the number of forage fish, is there enough to support a predator population? That's a different question. That's a stock assessment question, a multi-model stock assessment question. That's not addressed here.

Specifically, where forage fish are, though, yes, that does influence where HMS predators are. And so it's incorporated two different ways. One way is that, presumably, for most of the year, these predators are chasing prey species. So where
they are is based on where the prey species are, so there is an assumption that there is some forage fish wrapped up into there. Yes.

Second, one of the environmental models is chlorophyll a, which is a measure of ocean of productivity. And the reason why that's important for predicting where fishery interactions for large predators might occur is because that ocean productivity is matched up with different types of forage fish. So there is a way of kind of speaking to that forage fish question of location but, again, not number. That's a different question, and that's kind of outside the purview of what we're speaking about, but not that it's not important.

For gear types, yes, we looked at that. We understand that when these areas were first put into place as well as the early years, we used the training set for the model, circle hooks weren't required. So, in the model, we take into consideration $\mathbf{J}$ hooks versus gear hooks for gear configuration, and that's one of the things we use to help fine-tune the model and predict. So there is a
gear component to that as well.
Now, that's specifically with the gear used to target the species. So your third question is about other gears that would interact with forage fish whether or not it's taken into account, and the answer is no. I'm not sure how you would take that into account unless you were looking more at, like, a stock assessment purpose and seeing how many forage fish there were.

Maybe if I'm reading into your question too much, like if the midwater trawls were taking too much herring or perhaps something like that, that's a different question, and I don't know the answer to that. But that's kind of outside the purview of what PRiSM was made to do.

MR. BROOKS: Thanks.
Matt.
We'll come back to - we'll come back to you for comments.

Ally .
MR. BROOKS: Hang on. We'll get back to you too.

Tim.
MR. PICKETT: I'll try and play Jeopardy and phrase it as a question.

MR. BROOKS: Wise man.
MR. PICKETT: So I guess I'm coming from the optimistic position of opening up additional bottom. Is there a way of measuring either success or lack of success and identifying what success looks like in terms of - the way I look at it is - I mean, this is kind of a harsh comparison, but its closed areas are like being in jail. And opening an area is like being on parole it seems like right now.

I guess what I'm asking is: What are the conditions of the parole that would show success? You know, because we don't have - these areas are areas where we're incredibly data deficient or data delayed because there's been changes.

The way I see it is there's very little research being done or funded and refereed on gear types, techniques, things like that anymore. There's no circle hook studies being done, really. It's kind of a lag period in terms of - so that research is
going to have to be done by the industry to ensure that they would still have access to these areas or potentially gain more access or something like that.

So I would think the industry would want to know what success explicitly looks like. If you can identify those bycatch species that are shown out there, what would be the limit of success for catch of billfish or catch of turtles or something like that? Because the adjustments that are going to be made are going to be made by the industry to try and avoid it. And they need to know what the target looks like. So

MR. DURKEE: That's a great question.
MR. PICKETT: So I don't know if that can be explicitly defined, you know. So then the industry

- when we go to review it in a couple of years - we have a place to say, "Hey, look. The industry did this. You let us in here, and here's the metric that we're trying to measure ourselves." So that's my question.

MR. DURKEE: Yeah. No. It's a good question.

So, first of all, I don't want to frame it as opening up closed areas. We're providing some access in a risk-appropriate way to collect data. And I think it might be a nuanced distinction, but it's an important distinction. Second, we have not presupposed what an evaluation would like. There are no metrics for success as you put it. It doesn't mean that there can't be, but that's not how it's drafted right now. And if you have some ideas on what they might look like, that's something that we'd be interested in hearing, but we left it much more flexible than that. But if it's useful to know what that is, that could be a helpful comment.

MR. BROOKS: Thanks.
John. Let's bring you in. Welcome to the meeting.

MR. BOHROQUEZ: All right. Thank you very much.

So my first question is in the interest of cohesive marine spatial planning, mitigating redundancies, et cetera, is if you could clarify or shine any light on the extent to which there may be
any protocols for communication and coordination with other forms of area-based conservation and spatial management from marine sanctuaries to closures, from offshore winds as we learned about yesterday, as it developed and managed and as any such overlap arises? And I mean anything from the planning phase all the way to enforcement and scientific monitoring.

And second, in thinking about $30 \times 30$ and the U.S.'s commitment to protecting 30 percent of land and territorial seas, the U.S. is well on its way to achieving the marine portion of the commitment.

And just for context here, there has been, you know, criticism that the progress so far has been focused primarily in remote parts of the Pacific. And areas like the East Coast are underrepresented. But meanwhile, the Convention on Biological Diversity has opened the door to measures that might not traditionally qualify as protected areas but might achieve similar conservation benefits referred to as Other Effective Area Base Conservation Measures, or OECMs, that can count towards national commitments. So in marine areas, fishery management zones closures
are often looked at as potentially qualifying. So some of these zones - particularly the year-round ones, but not necessarily exclusive to that - may have the potential to count towards the U.S.'s 30 percent commitments already and which might help mitigate redundancies in marine spatial planning.

So my second question is whether there's been any thought internally in positioning some of these closures as OECMs or whether or not they might qualify.

Thanks.
MR. DURKEE: Yeah. Let me speak to the first question.

So no formal coordination with those other groups, but absolutely in formal consideration in context.

We understand where fishermen are allowed to fish and where they can't. And so that is explicitly in, you know, our considerations in looking at these areas whether it be in a marine-protected area, a monument. These offshore wind areas are super helpful to learn more about in the BAP meetings.

Those kind of things are in consideration, yes.
For $30 \times 30$, $I$ don't have a solid answer for you. That's something I'd like you to bring Randy or Caroline into. I don't know that we have a good definition of what that looks like, but it is absolutely on our radar, so I'll pause there.

MR. BROOKS: Yes. I think Kelly's at the table to answer that question.

Kelly.
MS. DENIT: Yeah. Great. Thank you.
Kelly Denit, Director for the Office of Sustainable Fisheries.

So to answer your second question, all of that is still very much up in the air, because, of course, the United States, under the 30x30 Initiative, hasn't actually yet defined what we mean by conservation and therefore, what would be included.

So I think that's the really short version is it remains to be seen, and I'm happy to talk more in the margins.

MR. BROOKS: Thanks.
Tom. There you are.

MR. FRAZER: Yeah. Thanks, Steve.
I just have a couple of questions that are related to the research and the EFP kind of process. And they're probably related to those that Tim just asked.

But the first one is, I mean, is there a research agenda that's been articulated within the HMS group?

And then the second part of that question, are all of the EFP applications unsolicited?

And then the third part of the question is what is the process - and this may need to be answered by somebody else - by which quota is allocated for research purposes? So there's three parts to that.

MR. DURKEE: Yeah. Can you clarify that first one, though, on research agenda?

MR. FRAZER: Yeah. So what I'm trying to understand is so there are EFP requests or applications that are put forth, right? But are they just random, right? Or has the agency provided some guidance?

And as it gets to, I think, you know, Tim's point, you know, what are the priority areas that people would be thinking about?

MR. DURKEE: All right. So I've got a two-part answer for that first question.

The first is that, yes, we do publicize what some of our research priorities are. That's a document we publish every two, three, four years, kind of what the updated - maybe longer. It kind of shows you what our research priorities are. And so, yes, that is out there.

But most of these - I would say all of these - EFP applications are generally unsolicited. So, no, they're not underneath, necessarily, what the agency identifies as HMS research priorities, but it is helpful if they are aligned with that.

And then each one of those applications is judged on its own merit whether or not to consider that or reaching back out to the researcher to ask more questions or get some modifications to their research plan. I think that kind of gets to your question a little bit.

Oh, then quota - I'm sorry - so quota. Yes, absolutely. So every species that we authorize for EFP, we've got a place for that quota, and it's tracked, and it's counted. So under every EFP, there's strong reporting requirements, so we know how many fish are being caught.

And then within each management group, there's different categories it goes to. For swordfish, we have a reserve category for research. For yellowfin tuna, we don't track quotas necessarily, but we have it incorporated into all of our data collection programs. We can make sure that's accurate. Sharks, we have a specific set of research set-aside as well. Everything's counted toward a specific place.

And in the EFP we actually have language in there that tells where each one of those species go to make sure it's encountered and incorporated into total mortality. Karyl's got a little --

MR. FRAZER: A quick follow-up. So what I was really trying to get at with regard to the latter part is what is the decision process that allows you
to allocate a specific amount of the quota for the research program?

MS. BREWSTER-GEISZ: All right. Well, I wanted to follow up on what Steve was saying about the reporting. And so just heads up for some people. In our electronic reporting and PR, we do talk about changes to the reporting structure for EFPs, so that is in there.

In terms of you're just - your question just now in terms of the quotas and where that comes from, for some of our species, we actually have a research set-aside, and so that quota goes there. For sharks, we have an EFP quota. So all of that comes from there. So it doesn't come from the commercial fleet. It's already allocated to a research set-aside.

MR. BROOKS: Did that get the answer?
Tim?
MR. FRAZER: Not quite. So I'm interested in the allocation decision process. So a priori, so some of it goes to the commercial sector. Some of it may go to the recreational sector, and some is set
aside for research. And my question very specifically is what is the decision process that allows you to decide what percentage goes to research?

MS. BREWSTER-GEISZ: Yeah. All of that is going back in time where it came from. So sharks is the one I'm most familiar with. That came from our 1999 FMP. So that quota was what Guy talked about us going back and looking at in Amendment 16. And that's where that allocation would come from.

Swordfish - I don't even know when that swordfish research set-aside came from, but it was a long time ago.

MR. BROOKS: But I think that's the answer, which is, you know, sort of a track record in his approaches in the past. Good. Thank you.

MR. BROOKS: I think I've got one more clarifying in the room, Bruce, and then I think I've got one online with Charlie Bergmann. And then we'll open it up.

MR. POHLOT: So I have a question on the effort caps, the preferred Sub-Alternative B3a. How were those caps determined?

MR. DURKEE: So we take total effort by number of sets, and then we have a reference area that we use for kind of putting some fences around where a regional fishery would be. So we have a size of that reference area. Then we have the size of the monitoring area, which produces a ratio of two sizes. Apply that ratio to total number of sets in that area, and that provides us with an effort cap.

MR. BROOKS: Thanks.
Let's go online for a clarifying question from Charlie Bergmann. And then I think we have one last one in the room from Rick.

MR. BERGMANN: Okay. I hate to keep belaboring the point here. But going back to the different alternatives, now is it possible to go in and select more of the different alternatives instead of a preferred alternative?

MR. DURKEE: If I understand your question correctly, and you were interested in DeSoto Canyon earlier, so I'll bring that map up. Is your question of combining different sub-alternatives into one and that would be selecting multiple?

MR. BERGMANN: Well, I'm looking at it more along the lines of A4b mainly because of how much folks were being displaced in the preferred alternative.

And I got to throw this one in here. I'm one of two persons that have set pelagic longline gear in the closed area since 2000. I believe they tested circle hooks. The other person who's doing it as part of a NRTA survey, and he's since died. I can only speak from my experience doing research on circle hooks in DeSoto Canyon closed area, and there was little or no bycatch in that area, but that was many years before.

I'm just leery of where we're going with all of this. I really understand -

MR. DURKEE: I understand.
MR. BERGMANN: - what Dewey's going
through on the East Coast, and if I were associated with the folks on the East Coast I'd be literally jumping up and down and screaming.

But, anyway, is it possible to get from the different sub-alternatives to get the same
conservation, if you will?
MR. DURKEE: The short answer is yes. So the sub-alternative, A4d, the one that's in the yellow outline right now, that's our preferred alternative, a sub-alternative.

So, yes, the other ones are available as options. We've analyzed those and thought about those and any kind of input you have on what might look better, from your valuable experience, we'd appreciate.

Now, if there are other configurations that don't match these exactly, that would be the question mark. If they fit within the analyses we've performed here, it's possible without reproposing, but that's a different question. But specifically, the ones that are up here, yes, those are all on the table.

MR. BERGMANN: Next, on the A4b, as well as the A4c, especially if you were to turn that portion at the top of the top half in the lower area and encompass all the edge of the shelf - which you're trying to protect the whales and what not - and
leave that whole area alone, open up offshore the edge of the shelf, that would be probably the best of the two. I mean, I can tell you that the idea of this parallelogram in 4D is dead on arrival.

MR. BROOKS: Thanks, Charlie.
Rick, you had a clarifying question.
MR. WEBER: Yeah. Steve, I want to pick up on the sidebar that I walked in on because I think there's some - I have some concerns of PRiSM as well and how it gets applied.

When we look at the Charleston Bump, they're going from a Feb 1 to April 30 closure to a year-round closure is proposed, the A2c and A2d.

And by your own - what did you call it scope metric, you're doing 121 percent bump in the Bump. That doesn't seem fair or right. And I understand the emotions that are behind.

Is there something compelling you that you suddenly feel like you need such an increase? I mean, you guys created the metric to say how much does this really affect. And the others are plus 14, down 26. And right there in the Charleston Bump by your own
metrics, you have 121 percent increase in scope.
I feel like these guys are a little right.
Is there something that's driving you to feel like you need more conservation in that area rather than aiming for something with a scope that seems more reasonable?

MR. DURKEE: Yeah. Fair question.
So we're balancing some conservation needs and some data collection needs. So looking at the different alternatives that we have developed from those different modification options, we score these. And so, not surprisingly, when you have that much of an increase in scope, you get a good conservation return.

So, in this particular case, with Charleston Bump, delineating that whole offshore area maybe a little over half as low bycatch area is a pretty big change on that.

So looking at the possibility of that inshore area increasing the timing substantially is one of the tradeoffs into there, and that's one of the reasons the metrics scored so well. And that's one of
the reasons that it's preferred at this point in time.

So it does - is a satisfactory answer for you, but that's basically how we went about this is kind of using that qualitative look and then quantitatively looking into the metrics and seeing what's balancing those conservation needs and the efficiency of protection too.

MR. WEBER: But isn't that captured under scope? I mean, I would have thought that scope would have said the number should be lower to be roughly the same conservation. You didn't say we're pushing through a new and stronger conservation rule.

MR. DURKEE: Yeah. So scope is definitely a helpful measurement of conservation. It would not be advised to use as your only measure of conservation. We could close the entire northeast in January, and that's not going to protect some species that are all further south.

So using completely scope only isn't helpful. It's one of the components that's helpful in combination with the metrics. It's also a way of
thinking about these things on a more simplistic basis, not just square miles but with a time component as well, which is helpful also. But that's not their only measure of conservation.

MR. BROOKS: All right. I think I want to shift to opening this up.

Jeff, did you have a clarifying question?

Or is it, Amy? You do, Amy. Okay. And Matt does. Okay.

MS. DUKES: Thanks, Bennett. I'm going to kind of piggyback off of Rick just a little bit, but I'm going to back up.

So, Steve, do me a favor. Under Alternative B4, you guys talk about 100 percent observer coverage and/or EM coverage. Can you tell me what the current observer coverage is for the Charleston Bump in particular?

And then, you want me to keep going?
Just an overall concept, $I$ think it would be really helpful for me and probably others to incorporate a little bit of lat and long into some of
those maps just to make sure that we're interpreting these areas exactly with where we're looking for on our fishing maps.

And then I want to get into a little bit more about the economic impact - the positive economic impact to the Charleston Bump of just over $\$ 200,000$. And if you could walk us through how you came up with those numbers a little bit more.

The way I'm looking at it is thinking about where the fishermen are fishing in the non-closed areas currently and where they will not be able to fish if we close the inshore areas year-round because that's typically where they're going come May 1st. And so they won't be able to access that at all and wanting to see how we got a positive number out of what I would think may not be a positive number.

Thank you.
MR. DURKEE: Yes. I'll take the second one first. Lat long sounds super helpful. That's something that we can better incorporate into some of those maps.

The first question is a little bit easier
also. Current observer coverage rates, they vary. I think our target's about 10 percent in the pelagic longline fisheries, so it's around there. EM coverage is 100 percent.

But, again, this is under EFP, so this would be a research project in there. And there needs to be some kind of combination of 100 percent observer and EM coverage or EM coverage, one of the two depending on what meets those needs.

So going to target catch. What we looked at is total effort, you know, number of hooks out and then CPUEs. So in open areas, that's not too hard to find a CPUE. In areas that are not open to fishing, for example, Charleston Bump, that are closed for part of the year, we needed to use an average of the surrounding months. And that's what we did.

For Charleston Bump, specifically, it is closed from February 1st to April 30th, so we took the average of January and May as the CPUE. And I'm looking at Dan just for some - but that kind of gets pretty far into the weeds. You might need to even circle back with a more specific answer, but

I'm seeing nods from Dan, which is helpful.

MR. BROOKS: Matt.
MR. HUTH: I'm still talking about the Charleston Bump here. I'm still a little bit unclear about the red area that you're proposed to close year around.

And so are you using the PRiSM model? You say you have some conservation concerns in that area.

Is the PRiSM model - is that what's driving these concerns? Or is it things in the logbook or observer coverage? Like, what's driving those concerns in that closed - that you want to close year-round, the red area?

MR. DURKEE: Yeah. So it's largely designed around PRiSM output maps, absolutely, looking at the species we modeled to see where the higher bycatch rates are predicted to be versus where they're lower. And also it's to delineate high and low bycatch risk areas.

There were other considerations as well. We understand that some of that shelf break around
there's important, bottom habitat for both commercial and recreational fishermen. We understand that the Charleston Bump bathymetric feature that it's named after, there in the southern portion, is important as well. So some of those come into consideration also.

In addition to some of those more specific U.S. science-based needs, as we showed on this map, it also provides a way to combine and connect some different - the closed area further south as well proposed - to create a single area that's a little easier to communicate and discuss and enforce, and that provides a little bit as well.

So if we were looking at swaying that bottom portion of Charleston Bump 10 miles one way or another, it's helpful to look at where the east Florida coast one is as well.

So it's a lot of moving pieces coming together to look at it and then use those metric scores to actually quantify what that conservation value is.

MR. HUTH: Okay. I mean, this, at first appearance, it's a terrible trade for our industry it
looks like.
MR. BROOKS: Thanks.
And, with that, let's shift now and start asking for feedback on what you're seeing here. We're already getting little bits of that. And I guess, you know, 1 think it would be really helpful to hear when you look at this, and when you've listened to this conversation, what's making sense to you and why? What's not making sense and why? And let's just open that up.

And what other ideas - you know, what would make more sense to you? And I think that conversation would be very helpful. And, again, lots to chew on here, and that's the whole point of having some time.

So let me just start working our way through the list I've got.

Matt, did you want to - I know you - did you want to come back in, or

MR. HUTH: No.
MR. BROOKS: Okay.
Ally.

MR. MERCIER: What I see on this chart and everything now, I'm glad I sold my longline boat because $I$ don't know how longlines are ever going to make it. It's just - I started fishing 42 years ago from the Hague Line all the way down the Gulf of Mexico, east coast of Florida. There was no lines, no limits. I fished everywhere, get a fish at tide, water, temperature.

And now what I see with this charts now, DeSoto Canyon. I fished a lot of that. It used to be fantastic. They closed some of that, so now I had to fish west of that, and it's good fishing, but now you're going to close some more of that. So like I say, $I$ just feel sorry for any more longliners.

I buoy fish now, which I can fish any of these areas. They're not closed to buoy fishing. And I think that's a new technology for a lot of boats to get into. But $I$ just can't believe how much they want to close stuff down because I did plenty of EFPs.

I did the Straits of Florida for over two years with circle hooks. I had two different types of circle hooks we had to go back and forth and use.

And the study we did there for over two years, with David Kerstetter, Nova University. I had the students go with me all the time, observers. They got degrees. They did their doctorates and everything. It came out very well. They were going to open up parts of the Straits of Florida, but they never have, and it's closed still. And it's over 20-some years, which I think that's a shame because the Straits of Florida, like north of Fort Pierce, I know south of Fort Pierce. Anybody that lives in South Florida knows it's a big contention with recreational. I live there. I know. I've been to a lot of the meetings.

I've dealt with Ellen, Bouncer, all those guys. We used to argue all the time, the big meetings down there, but now we're best friends, and we get together all the time, and you know, it's just a shame how the longline fleet got devastated, really.

And, you know, I just hope they take the buoy fishing, which it just - it's a good way to make a living. I think it's good for a lot of boats. I know it's moving up the whole east coast of Florida.

I know boats in South Carolina are doing it now. This summer there will be more going up that way. I mean, we can deep set with the buoy gear. We are - already been doing that. And $I$ had an EFP for doing that, and it's very effective. I mean, even last night, I talked to some of my guys out there in Florida. One boat had 10 fish buoy fishing last night and the two boats on the bottom right now. One has 500 pounds already, and another boat has 300 pounds. I just think that might be the future, but 1 feel sorry for the longlining.

That's it.
MR. BROOKS: Thanks. Appreciate it.
Marcos, please.
MR. HANKE: And I'll try to cover the general things that $I$ think everybody are seeing that if I'm in the room and nobody talk about it.

First of all, I am a shark liberator. I'm a recreational fisherman. And I'm really tired of not seeing anybody mentioning that we depend on the longliners, are talking from the recreational perspective, that they help us with the data that they
provide to secure the quotas when we go to ICCAT for discussion. And that's something super important that put all of us together in the same boat. And we need to recognize that. That's number one.

And number two, the ICCAT implications of this discussion.

Point number three, which is general, mechanisms that address specific geographic location. I'm not naïve. I know there is some cases that would not be true what I'm saying, but it's really hard with HMS that they are very fluid. They are moving with, especially on the colder areas with the bait, and maybe they pass through the Bump, or they feed on the Bump for a little while, and that's seasonal and so on. But the value of the specific area management instead of other tools I think is less than other fisheries.

And one thing that is super basic is that maybe I don't know about it, and I'm all super wrong is that this is the perfect example in which the industry, since the beginning, should be involved and tasked with the question. This is what we want to do.

We want to collect scientific data in sight of those areas that are already closed and how we can do it.

But let the industry leader that's first approached to avoid the problems that we are having now. Most likely, they will have the tools available or have the ideas. At least, it will be a process in which they can grow with the agency and start from bottom up to avoid problems and unfruitful discussions.

And from my naiveness, my opinion, scientifically flip information of scientific fleet with the longliners to support, to give feedback on this process is very important or to getting to those areas very important. Industry solution for monitoring $I$ think inside of those areas, they are the experts on how to do this.

The best way be include in monitoring is a follow-up into the first two points. And after that, just after that, we need them to - based on those results of this initiative that I'm suggesting - to decide what we're going to do. I don't think we are there yet, and that's why we're discussing and having
those problems.
And I want to recognize, also, something that is everybody recognize is the good intention of the team of HMS of doing what they did. But we have some historical happenings that is a big weight on the industry and on you guys to be effective on this discussion. And I think this group have to recognize that and look for different alternatives. That's why from the Caribbean try to make a better generic approach to this discussion, but hopefully is helpful.

Thank you.
MR. BROOKS: Thanks, Marcos. I appreciate the comment and the perspective on how this is rolling forward. So thank you.

Dewey.
MR. HEMILRIGHT: Yeah. The chart that you have up here - the Charleston Bump in the red - is you're having it for a year-round closed area. We have 20 years of data for nine months a year. Does it show a high bycatch area?

MR. DURKEE: You're asking specifically for the area the times that are not closed. And the
answer, again, is that we don't have an analysis right now, and that's something that we can look into.

MR. HEMILRIGHT: So you have data for this area that's open nine months a year, and it's been open nine months a year for 20 years. So either there's an issue with high bycatch data or there's not. And if there's not, why are you using a model to predict that you're going to have this area closed?

So it's a pretty easy answer that - right now you're having this area closed, in the red here, year-round. So what's your basis for that? Is it the model that you've made up or assembled? Or is it from 20 years of it being open for nine months? Which one is it?

MR. DURKEE: No, your point's taken, but it's not an easy answer. A lot of the decisions were based on these fishery interaction predictions from HMS PRiSM in areas that are closed. How do you compare that directly to the actual catch rates? It can be a little bit apples and oranges. But your point's taken. Yeah. It's something we should look into for sure.

But the reason that we used that was to make more of an apples-to-apples comparison of what the fishery interaction predictions are during times that are closed and then look at what that model says, also, in those times that are open. But no, we hear you loud and clear. That's an interesting analysis that we can look into.

MR. HEMILRIGHT: Well, I mean, when we go looking at stuff, so it almost disproved - you know, why do you even have that model when you have 20 years of data to look at? It just doesn't - seems like it doesn't fit the narrative that might be wanting to be done.

And so I think that it definitely should be looked at as long with some other stuff. Because this modeling stuff, you know, I read your reviewer's - your three different reviewers - and I'm sure they're experts in their field of what they do, but this modeling and trying to decide on where fish are at and at what time and all these other things. Show me some proven facts of how you model something and show me there was something there and not there before
we go down this buy-in field or trying to want us to buy-in to something that we know is almost going to be a - it has a potential to be a failure and let alone our back's already against the wall.

And so it's like I'm not up for calling a psychic hotline to figure out where to go fishing at and the different things. I want something that's more proven. I might not have $20 / 20$ vision, but something that's more accurate and reality than these assumptions, possibility, maybe, could be, and different things like that.

But it's clear that you got 20 years of data in this red here that's open nine months a year, and I would like to - you know, why aren't you using that into this sum model?

MR. BROOKS: Hang on. We've lost audio.
MR. HEMILRIGHT: Ah, that's enough.
MR. DURKEE: So it -
MR. BROOKS: Go ahead. Go ahead, Steve.
MR. DURKEE: The application of PRiSM is innovative in the way we're using fishery metrics.

That said, spatial modeling, in general,
is not something brand new. I mean, this is a decades-old process. It's been refined. These are models that have been used and validated and are trusted through a lot of different venues.

But your point is not lost on me. Do you want to put all of your faith into a model?

So that's why this is more guidance and data collection to try and find areas of delineating higher and lower bycatch risk and get some data collection in to see where the actual hooks are catching.

So to a large extent, we're not putting all of our eggs in one basket. But yeah. We've got pretty good faith in what's going on because it is based on, you know, years and years and years, and in some cases, decades of solid science.

MR. BROOKS: And if I'm hearing you right, Dewey, what I'm hearing, I think, are two main messages. One, where there's data, use it. And where there's not in using the model, you want to have a better understanding of exactly how that - how that data is being - how that model's results are being generated so it can make sense to you.

MR. HEMILRIGHT: Yeah. With that model, proceed with extreme precautionary - which y'all like to use sometimes - approaches before you go implement something that could continually decrease the fleet. And so that's what I'm asking to do there.

And I'll have some furthermore as I read over this stuff and look at it. And I think it would be good in the future if you could maybe have some more - I don't know - about explaining to the pelagic longline fleets some more of these assumptions.

We're not good at assumptions and modeling. It either happens or it don't. But we're not good on hypotheticals, you know, wishing, and all that stuff like that because it just don't work for us. We're not in that world, that academia world. So I'm sure there is, you know. We've had times where four boats will sit a half mile to a quarter mile apart, four vessels. Vessel number 1, the inside will have fish. Vessel number 3 will have fish, and the other two were out to lunch. Well, according to the modeling, all four should be in the
meat, so why isn't that the case?
MR. BROOKS: Thanks. Thanks, Dewey.
Tom?
MR. FRAZER: Yeah. I'm just listening to the exchange, and I think I'm going to maybe just try to help out a little bit from my perspective. I'm not super familiar with the PRiSM model.

But I guess what Dewey's saying is that you've got 20 years of data in the red, right? Is there an opportunity for the modeling folks to take advantage of that 20 years, trying to cast the model, essentially, and use it to validate the approach moving forward? I think that would get to his questions and probably help the agency out as well.

MR. DURKEE: No. And I appreciate it. And that's what we did. All the model is validated pulling out, you know, spatially, temporally, and randomly pulling out different areas in space and time and then random data assess to test that model against actual catch data. So, yeah, that validation has occurred.

Separately, I think what Dewey's asking is
using an actual catch data to see what the bycatch concerns are in the times when it's open because it's not open year-round down there. And the point is not lost on me. And that's something we'll definitely look into, but I appreciate that, Tom. Thank you. MR. BROOKS: Thanks. John. Then over to Tim. MR. BOHROQUEZ: Thanks. I just want to preface that I'm speaking to this as an individual and not on behalf of The Ocean Foundation.

But listening into Amy's clarifying question on the methodology behind the economics, I do have some concerns.

Effort in the economic analysis is by number of hooks. And that has some limitations because it's not looking at effort in terms of distance and time from the redistribution of effort in getting to the fishing grounds. And that factors into the economic analysis here because these numbers are strictly revenue, income only, not accounting for expenses.

And something that better reflects the
changes in profitability might be a more appropriate adaptation to account, if you want to get academic about it, the time value of wages, but more realistically it's the fuel burn. So something that factors that in more might be a more kind of realistic perspective on what the actual economic impact on the fishermen is going to be.

MR. BROOKS: Thanks.
Tim.
MR. PICKETT: Dewey pretty much said what I was going to say about - it's very difficult to kind of swallow making decisions on areas with no data and making decisions on areas with plenty of data kind of under the same umbrella. I mean, like Ally was saying, there's a bunch of places that it's a complete - it's a complete kind of unknown.

I don't understand how you can make a ruling on something that we realistically, in the modern way of doing things, know nothing about. And the only way you know something about those areas is to go fishing there.

And $I$ guess that looking at the
composition of the fleet now and what's left, I can't imagine there being something catastrophic that could possibly happen. So I just urge on - like Dewey said, be reliant on the information that you have.

I mean, it's a very bleak outlook, you know. Saying you can't be completely reliant on data that's been collected, and I'm just kind of - it's spinning inside of my head, you know, as to what would be the positive outcome for the fleet, you know.

It's, "Okay. We've collected this data and stuff," and then it gets cast aside for a computer model - or not cast aside, but not given the explicit, you know, quantity that it is, you know, in not completely defining the problem. You know, if there was a problem, if the industry knew about a problem there that their catch data was showing, you know, there might have been avenues to reduce that. You know, I mean, I'm kind of just lost looking for answers to everything here.

And the other thing is the clock's running out. The clock's running out on the industry big time. We have a couple of guys in my area that would
contemplate entering the fishery. But you know, it's an aging fleet, and there needs to be a light at the end of the tunnel, and there needs to be an explicit, you know, an explicit set of things for guys to plan their business models over. You know, I mean, it's a

- the perpetual unknown and the curveballs and things like that, it's not acceptable.

And like I said, the ability for the current fleet to have a catastrophic event in terms of any of these fisheries we're talking about is minimal, you know. That's just my thought.

MR. DURKEE: Let me just offer a clarification. It's not lost on me the idea of using some of the actual catch data to look at times when this is open. And we can take that into consideration and think about it. But taking us back a little bit to where we were, you know, pre-PRiSM, what we're trying to do is find some information in areas that don't have that catch data available.

In areas we do have catch data available, we are looking at bycatch. We're responsive to ESA concerns with their biological opinions. We're
responsive to, you know, MMPA for marine mammals. We're responsive to target catches for Magnuson-Stevens quota tracking, for other mortality from the fishery. We are doing that. The question of looking specifically at some of these margin areas where actual catch data are? Yeah. It's a great idea.

But taking us back a little bit, don't forget, we don't have data available in these areas where no one's fished for 20 years in those times and locations. That's why we're putting so much work into this model. It's not just a flight of fancy to go try something new. There's a purpose. There's a data gap, a gaping data gap that we have not been able to fill after 20 years of trying. That's where it comes in.

MR. BROOKS: Let me bring in Peter, then Mike, then over to Matt, and back to Dewey. Oh, and Rick.

MR. CHAIBONGSAI: Okay. I just have a couple - I guess it's somewhat clarifying some things as well as comment.

But on one of those slides that you had you had talked about - I think it was the scoping one

- where, honestly, I kind of took a little offense to say - where you said, "We're going to take off 24 percent of this area for the east Florida close zone," and then, "But don't worry because we're mitigating that to South Carolina, the Charleston Bump area." Granted, that's great in terms of mitigation, I guess, but in regards to why that area was closed in the first place was because of, essentially, swordfish, right, because of the longlining that was happening many years ago.

And as far as I know, and I could be totally incorrect here - and I lay it out to the panel as well as scientists as well - but does the Charleston Bump have a nursery ground for swordfish? That's the first question $I$ guess $I$ have.

MR. DURKEE: Yes. So two things. I don't think you're paraphrasing what $I$ said as quite accurate. More of my intention was saying that "Yeah, there is a reduction in scope east Florida coast that's more than made up for in other areas."

More my point was that if you look at this as a suite of scope, which is one measure of conservation value, it is an increase. I don't want to frame it that we're trying to take away from east Florida coast and add a Charleston bumper or do some trading. And I if I - if that's the way that I stated it, that's not my intention at all. So I appreciate the opportunity to clarify.

So for the second question on juvenile swordfish, yes, juvenile swordfish were one of many reasons that these Project Longline closed areas were put into place. But there's a whole host of reasons and only one of which is juvenile swordfish.

So your specific question on is that area also in Charleston Bump? We can look into it, but that wasn't the sole reason for that closure.

MR. CHAIBONGSAI: So just to play off of that - just to play off of that as well as just understanding, $I$ know that you're talking about apples-to-apples, and I completely understand where you guys are coming from in that.

But then, and understanding the
conservation, if conservation measures have taken place within those close zone areas - once again, completely understand that point - but I think we've said it in public comments before, but I'll say it again is it's definitely happening out there, 100 percent.

If you currently look at outside factors of the amount of money that's coming to the area from sport fishing, from tournaments, from industry to the community, you look from when the close zones started to now, I guarantee you that there has been a significant increase in, not only recreational effort, but what Ally was saying in terms of buoy gear, going and being able to collect. I mean, there's a lot - I feel like there's a lot of evidence there that clearly states that. And I'd like you guys to take that into account.

That, $\quad$ know, is not exactly apples-to-apples, which you guys want to have, but I think understanding the dynamics of these other factors and putting that within understanding how these conservation efforts are taking place and what's
actually happening should be put in place there too because Florida as we've talked about before, and I'm sure my colleagues will attest to it as well, is probably the largest amount of money that comes in specifically from the recreational side.

Do we want to see more of these individuals that are flying in from literally all over the world to either go to tournaments, to buy their products, to do all these things, do you want them to leave, not come to the U.S., come to Florida because that's one of the main reasons they come down to South Florida, right? So that's something to consider.

One of the other things that $I$ wanted to talk about as well, and it was kind of based off of last clarifying question from the beginning, which was, "Why this model?" And one of the reasons I state that is our foundation doesn't believe that this is the model to move forward when investigating opening up these close zones or, you know, looking at this type of - these types of management actions. We have, I think, historical - and it sounds like a lot of those sectors do - in terms of
how this could affect us. We don't want to jump into something so quickly and utilize this model as a form of management so quickly without really poking every single aspect of it.

And the reason I bring that up is when we had talked to - and I think, Steve, either you and I or Ellen and I or you had talked to Ellen or whomever, there were questions brought up by our scientists, as well as your own scientists, about this model. I will not name names but within your own division. So, therefore, if our scientists - your own scientists have questions on this model, then maybe we shouldn't push so hard on this right now.

And one of the other things that I'll bring to a point as well is that you stated, "We want to know how gear's going to interact. And that's that the PRiSM model is for. It's looking to how gears interacting with these species rather than where these fish species are," right? I believe that's what you said. I'm trying to paraphrase correctly. What the old models are looking at is where fish are versus where this new model is looking at is how gears
interacting with fish, correct?
So, for me, I - and it may be me being naïve a little bit, but it's almost two and the same. So I'd love a little bit of clarification on that.

But then, more importantly, too, is the fact that one of the papers, which is open to the public - and I'm happy to share with you guys because I was able to find it this morning - there is models out there currently that show blue marlin, swordfish habitation utilization since 1956 till present day. And I want to make sure why that hasn't been utilized within the paper when it was looked at by ourselves, our scientists. And why that model, which is being utilized by ICCAT, or in other places, why that wasn't utilized and referenced within your model.

Thank you.
MR. DURKEE: Yeah. So I'm trying to think of some other ways of describing why a fishery interaction model is different than and may be more useful here than a spatial distribution model for habitat preferences. So let me think on that for a second.

But I'm not aware of the scientists that you're saying don't think that this is a good model or appropriate. So any information you have and your specific concerns, air them to me right now. If you want to be offline, totally fair, because any criticisms that are out there, we want to hear. We've put it out for peer review for publication, put out to CIE. We got a lot of positive feedback, so we could use that.

Now, the more standard spatial distribution modeling, that's not the direction we went, but we did compare those results to what HMS PRiSM is showing including some of the models that you're referencing, like, from Goodyear and Blue Marlin, and we're seeing good overlap. So it is showing similar results as well.

Now, why to use a fishery interaction model. Here's one. Do you ever deep drop for you've been deep dropping for swordfish recreationally. So if you were to know that swordfish were in your area during the day, and you went out fishing, and you didn't catch them, that's not telling
you much about fishery interaction because you know the swordfish are there. They're just not taking your bait when it's 20 feet down below the surface.

What you want to know is where and when that swordfish is going to take your bait. So the swordfish is there. The spatial distribution modeling that doesn't look at fishery interaction will tell you swordfish is there. It's not telling you how likely to interact with your bait. And the answer is there's a zero percent chance if you're there at noon and a higher chance if you're there at night. So maybe it's not a perfect way of describing it but trying to get around understanding maybe more on why this is a beneficial for this action.

MR. CHAIBONGSAI: Just a quick - love to talk to you a little bit afterwards in regards to that.

But then, I guess, going back to the original question to which $I$ don't know if you answered fully, and I apologize if you did, which was taking into account the socioeconomic side of things, and I - that's what I was kind of trying to get
clarification from before. And I think Amy talked about it as well as John.

So I really want you guys - and I can't hit home that enough. Like, I feel like that's always short-changed when it comes to this stuff, especially when it comes to the recreational side. So I implore you guys to utilize that as one of the - a strong variable that you take into place when this model is - but once again, $I$ will state that we're not in preference for this model. Thank you.

MR. BROOKS: Thanks.
Mike.
MR. PIERDINOCK: Well, thank you, Steve. I'm going to be where in my chart about cap with my comments. I mean, it's apparent with what you're hearing from around the table there's a lot of concern about this PRiSM model, this ecosystem-based fishing managing model.

And even if you just go to each regional council from New England through the Caribbean to the Gulf and the Pacific and so on, each council has a different approach to ecosystem fishing
ecosystem-based fishing management. And each have different models that are in the process of being considered and used.

And I can attest to the fact that as you sit there and take these questions, you're in a difficult seat to have to deal with it because it is not a simple process because it is new and there's a lot of variables that ultimately impact the results of the model.

So I mean, as I look at that with some of the response to the questions earlier, as I sit here, as one in the water, $I$ can see that with increased temperatures and shifting stocks, we can see that.

But then I or we could have situations where the forage isn't there, the fish aren't going to be there regardless of whether the temperature and phytoplankton and all the different variables of why the fish should be there. But if the forage isn't there - which as you indicated, this is not take into consideration the management of herring where there is a herring MSC or there is a bluefin MSC and the different factors that take in consideration forage
for that or different forage fish that - that has me concerned of the outcome of such not taking that into consideration may be missing the result of such. So I'm not sure if it's possible to include that.

But also, Martha had pointed out earlier, you know, the question was posed about other species that are managed, and the model doesn't - from different, you know, managing bodies, state or federal

- and it does not take that into consideration either. So that's another input that could result in a different outcome. So whether that could be changed to take that into consideration, that's going to take time, money, and so on, and without it, I'm just concerned.

Now, the socioeconomic question, I just think something very simply that, for us, fuel prices are going to dictate whether a commercial or a recreational vessel are going to fish near shore and offshore. And we had fuel prices of 4 to $\$ 5$ per gallon for diesel or more, we were trying to stay as close to shore as possible or not even leaving the dock. So that's a socioeconomic impact that it's not
clear to me whether the model is taking that into consideration.

So there's a few specific metrics here that maybe there's some consideration that you could use that and see how there could be a different outcome.

You had mentioned metrics of success. And it is sad that it's 20 years later, and the longline fleet has not had access to these areas. So what could we recommend?

I've been hearing this from many for many years. There's a Norwegian model. There's actually a Pacific Council model where the commercial fleet is utilized as the mechanism to generate fishery management data in order to use it for fishery management purposes. And I appear to hear more and more, because of constraints with budgets and so on and lack of the ability to do more by the National Marine Fisheries Service at the federal or our state governments to do such surveys, that we need to look at other mechanisms to do that, to use the commercial fleet for such purposes, and we wouldn't be here 20
years later because they were prohibited from going in there. But also to do cooperative research with the recreational or for-hire community.

But this gets into the other thing that Tim had said, "Why can't you rely on the data that we're generating?" Because we generate data, and we need to make sure that, whether it's the Northeast Fisheries Science Center, the Southeast Fisheries Science Center, we generate the data, and you can use it for fishery management purposes. So that's where we need to open up that discussion for the rec, for-hire, and commercial fleet, utilize our data for more than just effort, to use it for fishery management purposes, help fill in these data gaps. And then if that would have possibly happened long ago, we wouldn't be sitting here 20 years later scratching our heads with what we could do.

Because lastly, the recreational and for-hire fleet, for example, this example where the low-lying fleet hasn't been able to go in there for 20 years, in many instances with commercial closures, those are the eyes and ears on the water seeing
changes in temperatures and shifting stocks. Somewhat the sentinel of this change is first before anyone else. And as mentioned, the commercial fleet may not be able to go into those areas. That's why you need to look to that and for cooperative research. And I would encourage that to occur.

It's occurring in other regions, other counsels, but $I$ would encourage that. That's not a quick fix now, but $I$ hope we're not talking about this 20 years later. I don't know whether you're going to survive that long, but that's another mechanism for that data set to get that research that's needed to help answer these questions.

Thanks.
MR. BROOKS: Thanks, Mike.
We have a little bit - I think we have until about $3: 15$, so a little bit under 10 minutes. I'd like to get a few more people in. I want to go online to Christine, and then we'll come back and hit Dewey, Rick, and Matt.

MS. KITTLE: Yes. I kind of want to piggyback off the modeling, yeah, on just, I guess,
the outputs of the model. I think it's something that's important for everybody to look at and what it is to understand is the scoring that you get to create these alternatives and select your preferred.

And then, in addition, those points carried on into your - when you're looking at that impact to ecology. And those scorings are kind of averages of the four species you selected for the bycatch. It doesn't discuss the climate, doesn't you don't look at the importance of one species over the other or outside what the impacts of other species, like dolphin, would have outside of the modeling.

And so $I$ don't know if maybe some of the scoring is kind of dragging some of your alternatives, and what you're saying is more effective because it's a standardized scoring for you guys to look at all over - to look at all the alternatives.

But one alternative could - you could have the same value, say both got a point because they protect, or they overlap this high-catch area for one month, but one - you don't look at the value of what
the model came up with. So one could be, you know, it has more area that it protects, but it still receives the same value.

So I just wanted to kind of mention that it's important to look at the scoring and how you're - how you are incorporating that and what you're saying is providing more protection and then how it impacts the economics and ecology input and economics and ecology of how you are looking at the impact of that.

MR. BROOKS: Thanks, Christine.
MR. DURKEE: Yeah. Thanks, Christine.
Just one clarification on that a little bit if I'm understanding your comment correctly. But yeah, I mean, focusing on the metrics is important for sure. I mean, there's a lot coming out of those. And they are all added together, which could create the perception that every species we looked at exactly the same.

Two thoughts on that. One is that in the DEIS, in the ecological impacts, we discuss species-specific changes in each of those metric
scores. So they're looked at separately. And then, also, implicitly in the model, we looked at - we weight each species' contribution to that overall metric score based on different factors. If it's an ESA-listed species, it is more heavily considered than if it's a healthy stock. And that kind of comes in with some of the bycatch risk areas, choosing different cutoff values of what is high bycatch versus low bycatch for each species, you know, whether that's 25 percent or 50 percent.

So there is some implicit differences in some of the species built into the model that may not be clear at the end when you just add them together. But that kind of dives a little bit deep into that PRiSM nuts and bolts that we can discuss perhaps offline.

MR. BROOKS: Thanks.
Dewey.
MR. HEMILRIGHT: I kind of resent the facts - the comments that were just made a little bit ago about the value of the fisheries and what people who are fishing and the amount of money they spend to
go fishing. The law doesn't say, "Magnuson, he who's got the most money get all the fish."

We also have the Biden administration with their environmental inequity and injustices about the disadvantaged communities and what they're able to do and how NMFS should be working towards that.

You know, the fact that there's too many people in Florida and their carbon footprint is so large, $I$ can't help that. But we should get an opportunity to go in these areas. And why is people afraid to do science in these areas? And they continue to tout keeping the closed areas.

And we're looking at pelagic longline vessels that support not only this country but also help at ICCAT where we're the only ones that get shit done because we're the only ones that to abide by the law.

So when somebody tells me about all the economics and all the airplanes that fly in from all over the world with their carbon footprints and all the amount of people out in the ocean that are a part of using this resource, just like the pelagic longline industry, $I$ sometimes had a little bit taken back by
them comments. I was hoping that we were further along than that.

And so we should be doing research in these areas. We should be continuing on. We should be - something else I want to ask is, is given that these models are PRiSM models and are used by the sea surface temperatures, how about the sea surface that's down there 3 or 400 feet below the surface where we're deep dropping, how does the PRiSM model pick that up? But we shouldn't be afraid of doing science.

You all have kept these areas closed for 20 years. You've closed off parts of the ocean down off Florida, so why is everybody afraid to do science? Either we're afraid to do science, or we're to shut our mouths.

MR. BROOKS: Thanks, Dewey.
I want to try to get in a couple more folks before we close out here and go to a break. I've got Rick, Matt, and I think I've got Charlie online. So if you could each be as succinct in your comments as possible, I'd appreciate it.

MR. WEBER: You went to me and said
succinct, right? I -
MR. BROOKS: It's a judgment issue. I don't know.

MR. WEBER: I have two points. And Dewey did just hit on it. I'm going to say, actually, very similar to Dewey but differently, which is I do not want to undermine Pete's comments about value.

And, Steve, it's not lost on me that you are very clearly saying that you are not opening closed zones so much as you are putting conditions on doing research. That is very different.

But it has been 20 years. And I am with Dewey in that we owe them the opportunity in my opinion, Peter, to see if, to show us that it can be done without the juveniles. We should not fear the research. We should greatly fear the impacts of the research if we disagree with it.

You know, I mean, I think there are two very different things there, which is let's see what they can show us, and let's let the government put enough conditions on it that we feel comfortable with the research being done.

But we should keep our skeptical eye on the research that comes out because just because they show us that it can be done cleanly doesn't mean that the implementation means that it will be done cleanly. Those are two very different things, and we have a very important job to do in the long run. That was one - one - one - one piece.

And I do want to go back to PRiSM, and I still want to go back to the Bump, Steve. I'm sorry. But, you know, we've listened over these last couple of days about CVA, and we're assured that it will inform the decisions, but it will not make the decisions. And then we hear about EEJ, and we're told it will inform the decisions, but it will not make the decisions. Historically, we were told that PRiSM will inform the decisions, but it will not make the decisions. And here at our first implementation, we have empirical data, and we are deferring to the model.

And here in 2023, in a post-ChatGPT world, where all of us are struggling to figure out what is real and what is a person, and a computer can write
entire things, $I$ want computers to be tools. And PRiSM is an awesome, awesome tool, but $I$ want a human to be taking a minute and saying, "Do we have better than the model?"

And so I'm just reinforcing one more time, and I'm trying to put some semblance of order to what you're - the pieces that you're hearing. You know, don't put yourselves out of a job by saying, "We're just going to do what the model says," because we like all of you a lot better than we'll like whatever comes out of the model. We trust you more than what comes out of the model. But you have that respect. Don't throw it away and put it in the model. Override the model when the model needs to be overridden.

You know, use that judgment. Use the empirical data. Use the data that you're being given, you know.

And this is - you made the point bringing these two things together - and then I'm done, Bennett. I promise - that you are not opening new zones, right? This is conditions being put on to do research, essentially is what the yellow zones are.

Then you shouldn't need a conservation offset in the Bump because you shouldn't be - you know, the conditions that you're putting on should be conservation neutral to get into the yellow zone where you were observing so strictly that you'll know if you then say, "Oh, we were wrong. You're going to take a lot more." I think you're a step ahead.

You are presupposing that the yellow zone is going to have additional impact before it has been proven. And you're asking them to run an experiment in the yellow zone. So do with that what you like.

MR. DURKEE: Yeah. Just two thoughts.
The first thought is I want to thank Peter for taking the heat off me for about 10 minutes because I needed that. I owe you a beer tonight, and I appreciate that.

Second, it is informing. These different directives and PRiSM, it is informing. We're not opening areas because of PRiSM.

And so your point of using actual empirical data to look at these areas, we don't have empirical data in the middle of a closed area during
that time that it's closed. It just doesn't exist. So if there is a data source available, we need that.

And that's what this is trying to get us something to know that if we do get some data collection in that area, that it's not going to jeopardize conservation goals. But we don't have that empirical data. And $I$ agree. That would be much better than a model's -

MR. WEBER: You have everything after April 30th all the way wrapped around to February 1st. You do have some empirical data that shouldn't drive you to be closing that in that period. That's - that

MR. BROOKS: We need to push. We need to get to a break.

Peter, do you have something less than 30 seconds if you can hold on it?

MR. CHAIBONGSAI: Yes.
MR. BROOKS: Okay.
Then $I$ want to get to Matt, and then $I$ think Marcos. No? And Charlie might have a comment
online.
Go ahead, Matt.
MR. HUTH: I was going to give Peter a chance to redeem himself.

MR. CHAIBONGSAI: I was about to say something --

MR. HUTH: Okay. Go ahead. Go ahead.
MR. BROOKS: If it's a moment of redemption, it's all right because it always takes precedence, Peter.

MR. CHAIBONGSAI: It's because I called you out before, isn't it?

No. So I want to make sure I'm very clear with you guys as well.

The commercial sector was - that was more just towards the collective socioeconomic. I'm not saying anything in regards to your worth versus our worth versus somebody else's worth. It's just the overall socioeconomics of the sectors themselves so please take that into account.

And what I was more talking about as well is this is the time - and, obviously, this is why
we're having this meeting and these meetings, right, over the past two years I feel like is to poke as many holes, like I said, in this to where we can figure out where the corrections need to be made.

And in its current form, PRiSM needs to be corrected. Obviously, from - it sounds like from everybody from every sector there are enough concerns by multiple sectors that were poking enough holes that you guys are seeing. So that's what I was trying to get to before.

So there was no directed or implication of saying that we're worth more than you X, Y, Z. But it was just more to let them know that the socioeconomics from all fishers - but I was specifically saying "ours" because that's the data that I have - is very important.

MR. BROOKS: Thanks for the clarification.

MR. HUTH: And I'm glad you said that, Peter, because I mean that's - looking at this PRiSM, that just scares us to death, you know, relying on this PRiSM.

And looking at the Charleston Bump closed area, $I$ just don't see any - the way it's written and maybe, you know, it'll be tweaked - I just don't see anything coming in our favor out of that as it's written.

MR. BROOKS: Thanks. I'm going to go to Charlie online, and then we do need to get to a break here. Charlie.

MR. BERGMANN: Okay. I'll
be real quick. One word, revitalization. That was something that was the catchphrase for a lot of years.

But prior to the closure in 2000, there were a couple of hundred directed pelagic longline fishing boats from the Gulf of Mexico up the East Coast. We kind of whittled that down a whole bunch with 70-some-odd different IBQ accounts. I just don't want to see this fishery just completely vanish.

It's evident from what we're - what I've heard, anyway, today - that there certainly needs to be more than three public hearings on this amendment. And I would hope that we get those.

Thank you.
MR. BROOKS: Thanks, Charlie.
I see your card, Greg, but I got to - I'm going to maybe let you talk to someone over the break on this one. Okay? Thanks.

Karyl or Steve or Larry, anybody want to throw anything in before we -

MS. BREWSTER-GEISZ: So before we go to the break, I just want to thank all of you for your comments so far on PRiSM and the closed areas. And I hear the frustration. I hear the confusion about PRiSM.

PRiSM is a tool that we used. We did not rely completely on PRiSM for these areas.

Though I'm hearing a lot of confusion, a lot of questions, $I$ think after this we're going to be regrouping as a team to figure out what the questions were and how to best answer them and make sure that everyone understands. We have a long comment period for that reason.

I will also say while we have been accused of presupposing things - maybe rightly so. I don't
know - I also want to make sure all of you know this is a proposed rule. It is not written in stone that this is what we're doing. We take all these comments very seriously, and we will be going back and looking at it.

Those of you who were around back before the closed areas, when we were proposing the closed areas, will remember we proposed closing the entire western Gulf of Mexico. As a result of public comment, we went back, and we relooked at things, and public comment was very clear that we should be looking at DeSoto Canyon. And that's how DeSoto Canyon came back and came about.

We went - after the comment period closed, we came back out with a whole analysis of DeSoto Canyon, and that was because of public comment on the models we were using then and those closure analyses.

So I just want you to remember you may not see changes over this comment period. You may hear changes in how we're describing things to try to address misperceptions and misunderstandings.

But you may see changes after the comment period. This is not written in stone, and I just want to thank you again for all the comments heard so far.

MR. BROOKS: Okay. Thank you, Karyl.
And I'll just say that I - in advance of this conversation I think what I heard from Randy and others we were really hoping for a candid conversation and a lot of direct feedback, and I genuinely want to compliment you all for doing just that. I think the conversation that you had here and the strong feedback, as it should have been, was really valuable. So thank you all.

I know there's others who want to get in here, but we've got to get to a break. It is about 25 after. I'm going to suggest we take a 10 -minute break and then come back, and we'll pick up another easy topic, electronic monitoring, so okay. See you all in a few. Thanks.
(Whereupon, the above-entitled matter went off the record at 3:26 p.m. and resumed at 3:43 p.m.)

MR. BROOKS: So just to remind us as to where we are right now in the meeting, we are about 15
minutes behind schedule. And that's okay.
We are going to continue with our Amendment 15 discussion but pick up the Electronic Monitoring part, which will kick off with a presentation and then a little bit of discussion. At around 4:30, we'll switch to an update on the Deepwater Horizon Restoration.

For any members of the public who are on, we will be going to public comment at 5:00. We'll then close out here and finish up by 5:30.

And then just again a reminder to everyone in the room or online that at 6:00, we'll have a one-hour informal Q\&A and discussion again around Amendment 15.

With that, let me just hand it back to Steve to keep pushing at Amendment 15 and picking up Electronic Monitoring.

MR. DURKEE: Okay. Thanks for that.
This is the second half of that Amendment 15 presentation. So if you're looking for it online, it's the back half of that PDF. We'll start a little over three-quarters of the way through.

So this is the second portion of Amendment 15. Again, Amendment 15 has two broad components: the spatial management portion, which we just discussed, and now the pelagic longline EM cost allocation.

Some overlap between the two obviously, with EM being the focus of this section, as well as some EM requirements in monitoring areas. There is some overlap. But again, we're going to communicate it mostly separately just for ease of understanding communication and comments back.

Okay. Most of this background is pretty familiar to everyone on the table. Since 2015 and Amendment 7, pelagic longline vessels are required to install cameras on their vessels that record the haulback in order to monitor those catch and discards. And that was put into place to ensure compliance with bluefin tuna IBQ reporting requirements.

It was also later expanded to include shortfin mako shark disposition when ICCAT had a recommendation requiring only the release of sharks brought back dead.

Since implementation, NOAA Fisheries has
paid for the entire program, really through two separate contracts. One for the equipment installation side, which in the past was through saltwater, and then data review, analysis, and storage, which was with 3ERT in the past as well.

In the intervening years, specifically in
May 2019, NOAA Fisheries issued a cost allocation directive for EM. This is the cost allocation in EM programs for federally managed fisheries.

It offers some guidelines and directives for EM cost allocation. EM cost allocation is just a fancy way of saying transferring these EM costs from the agency to the industry.

So the need for action. To comply with that cost allocation policy but also to address NOAA budget constraints, Amendment 15 considers transferring those EM sampling costs from the agency to the industry.

The objective is to actually modify this $E M$ program, to not just use the model we have right now and shift those costs, but also kind of recreate the EM program to try to minimize what those costs
would actually be. And that's to address those relevant EM policies, including that 2019 cost allocation policy.

Some of the goals are to minimize impacts to bluefin tuna reporting compliance, minimize costs for vessel owners, and provide some flexibility for vessel owners and vendors to meet program goals.

That third bullet is kind of a mouthful. It feels like kind of just throwing it out there, but it's super important.

The way the program is designed right now is maybe not the most cost-effective way of going about it, so some flexibility in how different vessel owners and vendors meet some of these program requirements. There could be some significant cost savings there.

So the top of this slide is mostly related to that EM cost allocation policy from NOAA Fisheries. It divides in that EM program sampling costs versus administrative costs.

That policy directive wants those sampling costs to go to the industry and the administrative
costs to stay with the agency. There's a list of what those look like up there, that first table.

Essentially, it's the equipment. It's the data review. It's the data storage. It's training captain and crew. Most of the things that are visible from the vessel operator's side are the sampling costs.

The administrative costs are more the program support, certifying EM vendors, sampling design, creating the program, kind of the back end stuff that happens more in the HMS office.

To those goals, we have three alternatives. I'm going to focus on the first and last and then we'll dive into the preferred alternative, F2.

The first one is no action, maintain the current program that the industry funds. The alternative $F 3$ would remove the current EM requirements for bluefin tuna and shortfin mako.

Note that under this alternative the IBQ program would remain. It's simply that EM component that would be removed. If that's the case, IBQ usage
would be tracked through those VMS set reports that pelagic longline vessels are required to make at the end of each set and through landings of those bluefin tuna that they retain and sell.

But again, we're going to focus in on that preferred alternative, F2, for the rest of the presentation. What we're proposing under here is to transfer those EM sampling costs to the industry.

The industry would pay 100 percent of those sampling costs. It'd be phased in over three years. The first year 25 percent, second year 50 percent, third year 75 percent, and the fourth year 100 percent of the costs would be with the industry. Under this program there are four components to this alternative: vendor requirements, vessel requirements, vessel monitoring plan requirements, and then modification of when and where EM is required.

And those areas will be designated as EM Data Review Areas. We'll dive into some maps of what those look like.

Conceptually, here's an infographic
looking at what that modified program could look like. The way that I look at this infographic is this blue box here is kind of the new program. In this top left you have an arrow of vendors coming into this program. The way they come into the program is they apply to NOAA Fisheries to be certified. NOAA Fisheries decides whether or not to certify those vendors. Once they're an approved vendor, they're working directly with vessel owners to coordinate equipment, data review, data transfer, data storage, all of those different requirements.

Listed underneath the approved vendor box are the vendor requirements, which we'll get into in the next slide. The vessel monitoring plan would be developed between the vendor and the vessel, with some requirements underneath there and on the next slide. Then the vessels have some requirements as well, which we'll dive into.

What this infographic is helpful in seeing is that there's a separate arrow coming out away from that and down to NOAA Fisheries. The approved vendor is providing quarterly reports and metadata to NOAA

Fisheries with information about that video review. NOAA is pulling themselves out of that relationship between the vendor and the vessel to provide some flexibility, and just setting the parameters of what we need to maintain compliance with those bluefin tuna reporting requirements under the IBQ program.

Diving into the first three components, starting with vendor requirements. Again, NOAA Fisheries will solicit vendors to be part of the program. Vendors could apply to the program. NOAA Fisheries would choose to certify or not certify.

Those vendors will work with vessel owners to receive video. And that video must be reviewed by trained staff. Then once they've done that quarterly, the vendor reviews ten percent of all the sets submitted and at least one set per vessel.

They then submit a quarterly report to NOAA Fisheries with that information as well as metadata, which is essentially the text files that come with it that kind of show GPS coordinates, when and where the drum was engaged, et cetera.

They must be willing to provide additional video review at the request of NOAA Fisheries. And then finally, retain that video for two years.

On the vessel side what happens is before embarking on a trip, a vessel owner needs to coordinate with a certified vendor to make sure they have this relationship developed where that vendor is going to receive that video, and then review that video consistent with requirements.

That vessel owner is going to negotiate the price structure and the cost structure directly with the vendor. They need to work with the vendor to create a vessel monitoring plan. The vessel monitoring plan won't change too much from what it is now, but we'll get into the specifics in a second there.

Once that's in place, if this is in place, they may not fish in areas that require EM without a functioning unit. And they need to continue to report bluefin tuna catch within 12 hours of the end of each set.

The third component, vessel monitoring
plan, this mostly stays unchanged. Basically, it's a way to know where the camera should be, how you should land catch in the view of the camera, and how you should submit the data, just kind of creating an understanding among the vessel owner and the vendor on the requirements for that program.

One of the more complex components of this is the fourth one. It's modifying when and where EM is required. This kind of meets a few goals.

First to go through it, this is really operationalizing the current sampling protocol that we're using right now. I'll explain what that means in a second.

What we've done is we've identified times and locations of likely bluefin tuna interactions. So instead of requiring EM where it's unlikely that a pelagic longline vessel would interact with a bluefin tuna, we're only going to require it in those areas where bluefin tuna interactions are likely.

We then designate those areas as EM Data Review Areas. So now vessels are only required to activate their EM, coordinate with the vendor, and
submit video when they're operating in those areas during all or a portion of the trip.

This could reduce costs. There could be times and areas where EM is not required. And as long as the target catch is available outside of those areas, presumably a vessel owner would not need to fish in that area at all if it worked with their fishing strategy.

It also incentivizes avoiding areas of likely bluefin tuna catch because there is a cost with going into those areas of likely bluefin tuna catch. And then we can kind of perform regular review of the EM Data Review Areas to account for changing bluefin tuna distributions as the oceans change.

Looking at this, it's helpful to take a step back and think about what we're doing right now and how sets are selected for review. Pelagic longline vessel operators go out and fish, and we know when and where the sets are.

At that same time, the Southeast Fisheries Science Center, they know when and where those sets are as well. What they're doing is they're selecting
which sets to review.
ERT, the company that was reviewing all of the video, they didn't decide what it was. The Southeast Fisheries Science Center communicated that information to them.

The first step in the Southeast Fisheries Science Center sampling plan is to get rid of sets that did not occur in areas of likely bluefin tuna interaction. It doesn't do any good to put all your resources to the Gulf of Mexico in the fall when bluefin tuna aren't there. You want to make sure you're getting good coverage on where bluefin tuna might be.

That idea where the Science Center is actually selecting sets after the fact doesn't work when you have multiple vendors. All of a sudden you're coordinating the Science Center with multiple vendors and then when the vendor receives the sets, they don't even know what they're reviewing until the Science Center tells them so.

With this instead, EM is only required in areas and times of likely bluefin tuna catch so that
when the vendor receives that video, they simply need to review ten percent of those sets. They're not waiting for the Science Center afterwards to tell them what they need to review.

And one of the largest costs of the program is actually that in-person video review. That provides some cost certainty for the vendor. It allows them to lower costs because there wouldn't be unexpected video review costs based on the sets that they're bringing in.

So this program, yes, it also reduces costs, but it also operationalizes that current sampling plan to make sure that any kind of bluefin tuna monitoring compliance needs are not jeopardized with these modifications.

Looking at impacts, ecological impacts are likely neutral. It's going to maintain that bluefin tuna reporting compliance component that's the goal of the program.

The socioeconomic impacts though are not quite as good looking. It's moderate adverse. We have up here a chart that kind of shows some
preliminary top-line cost estimates of what it could cost.

I do want to stress that this is what we're kind of looking at as the cost ceiling. This is simply the government contracts divided by the number of sets annually to get this number.

Whatever the contracting company is charging the government, including to set the program up initially, all of the coordination, all of that is wrapped up into this cost. That's why we think it's a top-line estimate, that that should probably go down on its own without the cost mitigation strategies that we have in place.

With this cost mitigation strategy, it should come down even further. Those cost mitigation strategies are, again, shifting that cost over three years and phasing it in. That wouldn't necessarily help in year four, but it definitely helps the market develop in their earlier years to kind of find ways to meet program needs at a cheaper cost.

The program structure also encourages multiple vendors to enter into the market. Right now
there's just one vendor providing it, and they can set the price on what the government's paying for that. So once multiple vendors are in there, costs should come down.

That's what's happening up in GARFO. Not specifically the costs necessarily, but at least there are multiple vendors. There's nine EM vendors certified in the groundfish EM fishery. So there are multiple companies out there that are willing to provide these services.

NOAA Fisheries has provided all the EM equipment. And those vessels could continue to use that equipment for the life of the equipment. Vessel owners would need to pay for any kind of upgrades, repairs, or replacements, but that equipment that's on there in the near term can continue to be used.

There's also flexibility in equipment and data transmission specifications. We have a certain video quality we need in order to make sure we're identifying bluefin tuna correctly and at a certain quality to make sure we're hitting those goals.

Beyond that, there's some flexibility in
that equipment. What can that equipment look like? Is there some off-the-shelf consumer products? Do you need to actually send a hard drive? Is there a way to do cellular data or satellite data to transfer that data?

There might be some cheaper costs that are available for a vendor and a vessel to work out, and providing that flexibility could reduce those costs. And then again, the EM requirements are limited to the EM Data Review Areas. That could definitely reduce the times and locations of when EM is required.

This is the same slide we saw before. I don't have a discussion order slide. I know we don't have quite as much time for this one so we don't have it organized quite that same way, but this is that same slide for more information on the A15 home page.

MR. BROOKS: Great. Thanks, Steve.
If there are any clarifying questions, let's take them and then just open it up. Let's go over to Willy and then over to Dewey.

MR. GOLDSMITH: Thanks, Bennett.

Thank you, Steve. A quick question on slide 55 with this 19 percent profit estimate associated with this. You had mentioned this would only be required in -- I think it was the previous slide -- times and locations of likely bluefin tuna interactions. This might be in the proposed rule so my apologies.

Has there been any kind of retrospective look as to what percentage of trips would be impacted by this? I'm just thinking about kind of the real average chunk of profits over the year averaged across all trips, including those that were not in areas of high bluefin incidents. Thanks.

MR. DURKEE: I appreciate the question. Actually, that gives me an opportunity to kind of clarify just a little bit. I said that on that first column there with the cost per set.

And then yes, again, this is brought out across an average six-set trip, what that cost would be, the median profit for that size trip, and the comparison of the EM cost to the profit, which is 19 percent. I kind of skipped over that, so thank you
for that opportunity to clarify.
And yes, we do have estimates. In the DEIS --

MR. BROOKS: Hang on one second. We've lost audio just for a second. It's back up. Go ahead.

MR. DURKEE: In the DEIS, we do have broken out by those areas what historically the percentage of sets that would occur when EM is not required. So for instance, looking at the EM Data Review Areas, in that Mid-Atlantic area it's required year-round.

Obviously, there's zero percent of sets that would not be required to have EM. It's different in the North Atlantic, South Atlantic, and Gulf of Mexico. That table is in the DEIS. We could pull that up for reference too.

MR. BROOKS: Thanks.
Let's go to Dewey and then we'll go online to Alan Weiss.

Dewey?
MR. HEMILRIGHT: I don't have much
clarification. I've just got a lot of questions. When you look at the area of the Mid-Atlantic July to December, we don't have bluefin tuna there 12 months a year.

So why are we forced in the blue shade to have EM? Am I misinterpreting this? Why do we have to have it 12 months a year? And then I've got a couple more questions.

MR. DURKEE: This is largely and almost exclusively based on the Southeast Fisheries Science Center's current sampling plan. They consider that area of likely bluefin tuna interaction.

MR. HEMILRIGHT: That's total bullshit. It isn't the case. We've got our log book data to prove that. We've got a vessel monitoring system, which you all have, that shows we're not catching the bluefin 12 hours after we sit at certain times.

So I don't know where -- I mean, this right now is false because it's not happening. You all have got the data to show that it doesn't happen.

You've got the vessel monitoring system, if it works, that 12 hours after the sit -- you've got
in August, September, October, probably up to November, maybe even July, you don't catch bluefin tuna there. And I wish to hell there weren't there year-round.

MR. BROOKS: This is helpful, Dewey, because I think this is exactly the feedback we need.

MR. HEMILRIGHT: Yes, but the problem is it should have never been put in here.

MR. BROOKS: I hear you.
MR. HEMILRIGHT: So it doesn't matter about the helpfulness. Where's the homework to be done? So this shouldn't be put in here.

MR. BROOKS: Thanks, Dewey.
MR. DURKEE: Point taken. What this is, the goal is to meet what the Southeast Fisheries Science Center is doing now to filter out sets to make sure that we're still getting good coverage across it. So I'm not disagreeing with you. You know much better than $I$ do when and where you're catching bluefin tuna.

These areas are built around the current sampling protocol to make sure we're maintaining that
data stream and maintaining those monitoring needs. That's what $I$ mean as far as it matches what the Southeast Fisheries Science Center's sampling plan is.

MR. HEMILRIGHT: My follow-up, my next question would be you talk there about how you're thinking. Go to your cost analysis, please, whatever slide that is. You've got your cost analysis up there. You're projecting, thinking, or maybe hoping it's probably going to come down.

Well, what's interesting about that coming down part, about seven years ago $I$ had to buy a vessel monitoring system for $\$ 3,200$. This past year in June I bought another vessel monitoring system that went out for $\$ 3,200$. It didn't go down much.

So while we're looking at all this stuff, do you think if a vendor knows that they can get \$2,280 out of you, the federal government, do you really think I'm going to be negotiating a lower price with somebody? They know we've got to have this if you force it upon us.

So we're at the beck and mercy of somebody that's a for-profit industry for whatever it is.

They're not going to give us a free discount just because we have it.

We've got to really think in reality of this stuff here, not some pie in the sky, as we're going through this amendment. It affects us and we don't have much else left. So when we look at this stuff, it needs to be a reality check and not some hypotheticals, maybe, should, and all that stuff.

MR. BROOKS: Steve, can you talk to where the cost estimate came from?

MR. DURKEE: Yes. The reason we think it's a top-line estimate is because it is the federal government contract with all those requirements that are built into it, as well as the developed infrastructure for that program. There's a lot of costs behind that that exist.

So with the increased competition in competing for your money to pay for them, we do think it's going to come down. And I don't have an answer on exactly what that looks like, but we think it's coming down.

Maybe a broader-picture reality to look at
is that we have an EM program that has been successfully supporting a successful IBQ program that's converting dead discards to landings. We have budget constraints within NOAA to be concerned about. And importantly also, we have vessel owner budget constraints to be concerned about.

So there are three perhaps competing needs, and we're trying to find ways to meld all three of those together. That's kind of where these cost mitigation strategies come in with that top-line number to try to bring it down.

MR. BROOKS: Thanks.
MR. HEMILRIGHT: Just one last question. What's the total amount that you all spend right now on the EM program for the 70 or 100 vessels or whatever it is now? What's your total amount in millions of dollars that's spent to monitor us from $A$ to $Z$ on whatever you all have to do?

MR. DURKEE: It's in the DEIS.
MR. BROOKS: We've got Brad coming up.
MR. DURKEE: Thank you, Brad.
MR. McHALE: It's been a while since I've
looked exactly at those numbers, but $I$ thought it was standing at about $\$ 1.1$ million for annual operating costs for that entire program.

So that's all the hardware, the replacement hardware, the hard drives moving back and forth, the review time, the QA/QC, as well as the collaborations Steve just mentioned with the Southeast Fisheries Science Center.

MR. HEMILRIGHT: And that's also with the vendor that comes to the boat to fix it or something like that. So $\$ 1.1$ million, and the agency can't find \$1.1 million because of budget constraints.

MR. McHALE: Well, to that point, I guess my response is whether or not the agency can or cannot find it. What the HMS staff is currently doing is complying with the national policy of where those costs transition over to the fleet.

And that applies across every EM program nationwide. It just happened that the HMS program got out ahead of that national policy, hence why we're able to pay for it as long as we have.

Now, since that policy has hit the street,
we're now obligated to adhere to it. We, I think better than anyone else in the agency, understand the challenges that come along with it, having had the experience of actually implementing a program in a production capacity, having observed the costs that are incurred by trying to collect that program which is a compliance tool.

More often than not, the discussion around the nation right now is how do you supplement observer programs and where are cost reductions there. So it's almost an apple and orange in comparison.

But lastly, having been involved in these entire discussions is this exact debate that we're having here now where electronic monitoring has shown promise in collecting information at sea, but what fisheries can incur it?

So if the agency doesn't have the funding or is unwilling or unable to have the funding to support programs, not just this program but any programs stood up around the country, and if the fisheries themselves don't necessarily have the funding to incorporate it, where does that leave us?

I think Steve had mentioned it very articulately there. If the agency either through policy-driven or financial resources is unable to foot the bill and you have a challenge of where the industry itself has those same exact challenges, where do we all evolve to? $I$ think that's kind of the premise here that's the point of contention.

MR. BROOKS: Thanks, Brad.
I want to bring a couple of other folks in here. I'm going to go online and then I'm going to Alan and Charlie online. And then I'm going to come back into the room with Tim, Marcos, Matt, and Steve.

Alan?
MR. WEISS: Okay. Something I really don't understand here is I've noted that the Magnuson Act contemplates these fishermen requirements of allocations that they receive under the Limited Access Privilege Program, which the IBQ would be. But the law also includes a limit on those fees, not to exceed three percent of the gross vessel value officially entered into the program.

So I'm just having trouble understanding.

What is the rationale for proposing to implement fees that are tremendously higher? This slide you have up now says 19 percent, tremendously higher than what's indicated in the law.

MR. DURKEE: Yes. Under MSA, for LAPPs there is a cost recovery limit of three percent for the administrative costs of these LAPP programs.

Very explicitly, the cost allocation policy is transferring over those sampling costs, not those administrative costs. So for that reason, any of those LAPP requirements, those cost recovery requirements, really aren't applicable in this case.

MR. BROOKS: Thanks.
Charlie Bergmann?
MR. BERGMANN: I don't think Alan was done with his question.

MR. BROOKS: Okay.
MR. BERGMANN: I'll wait until Alan is done.

MR. BROOKS: Thanks.
Alan, please come back in.
MR. WEISS: So the Fisheries Service
created a procedure that they think grants them the authority to supersede the fee limits that are in the Magnuson Act. I'd say that Congress put that three percent cap in because they figured that was about the limit of what the industry could reasonably bear under these circumstances.

That three percent was to be on fish that the fishery is supposed to be trying to catch under the conventional catch shares program whereas the IBQ, of course, is for species that the fishery is supposed to be trying to avoid. It doesn't make any sense to me, but I'll move on from that.

Considering the number of sets and the cost that's going to be incurred by the fishery if this goes forward, you have to anticipate that there's going to be a tremendous decrease in effort. It has to significantly raise the bar for when and where someone is going to go out and make a set because you've raised the bar on how much revenue they have to generate in order to even be there.

So you're going to drastically decrease the effort, especially among smaller vessels probably.

That's going to reduce the output of the fishery and reduce the attractiveness of other vendors coming in to offer the monitoring services.

The mitigation measures that you've listed that you say could reduce the cost burden are just kind of a wish list. There's nothing concrete there that you know is going to happen other than the phase-in, which is like saying they're not going to give you your lethal injection all at once. They're going to spread it out in doses.

Then you come to the latter part of the document under the national standards. You can't possibly think that under the circumstances that $I$ just described, and which you have to admit would be the case, that you're going to be able to obtain the optimum yield for any species that's caught in this fishery.

You're not obtaining the optimum yield now, and you haven't been attaining it for years. So to say that you can make this draconian move and then continue to operate at the optimum yield on an ongoing basis is just not true.

You admit that the impacts would be moderate to major on the fishery. That will definitely have impacts.

Another place that will be impacted is National Standard 10, where you say the preferred alternative does not affect safety at sea. How can you possibly think that you can increase the costs of operating a fishing boat by 19 percent and there isn't going to be a degradation in the upkeep of the vessel or its safety measures?

How could you think that the fisherman isn't going to take more chances to go to a place further offshore or in poor weather where they think they may be able to catch a little bit more to be able to get over the hump and actually make some money?

It's not going to be neutral. It's
certainly going to affect the safety of human life at sea. I'll leave it there for the time being so that others can speak.

MR. BROOKS: Thanks very much for that, Alan. I appreciate the comments.

Charlie, let's go to you now.

MR. BERGMANN: Okay. I've got a couple of questions. I too would question the IBQ of three percent as opposed to 19 percent.

What happens if you don't get any vendors?
Does that mean that it transfers into F1 or F3? And F3, you still have to report your bluefin. In that case, you'd be reporting it on VMS.

So you're still monitoring an IBQ which is a LAPP, yet you want to raise it to 19 percent. It's kind of like you're coming home from a date and say, Dad, I'm just a little bit pregnant. You either are or you're not. And this is definitely an IBQ.

MR. BROOKS: Thanks, Charlie.
All right. Let's hear from --
MR. BLANKINSHIP: Just to answer one question that he asked there about what would happen if there aren't any vendors, $I$ think that would be something that would have to be considered during implementation of the program as a whole.

If there's no vendors that are applying, that would be considered during that initial implementation phase. We would have to figure out
what next steps or other measures might need to be taken in order to recruit vendors if the vendors aren't applying at the very outset of the program. That's just my thoughts related to that initially.

MR. BROOKS: Thanks. I've got in the room Tim, Marcos, Matt, Steve, Bob, and Rick.

Tim?
MR. PICKETT: I won't echo what everybody else has already said about this in general. My question now is going to be around the vendor requirements and becoming an approved vendor.

If this were to be handed down to the industry, $I$ would think that the industry would then look in the way of potentially having some control over the cost of this. So understanding the way a vendor is approved, the breakdown of that, and the potential cost to a vendor is very important.

When they say review ten percent of sets, is that a person sitting there watching it second by second? Are they fast-forwarding through it until something interesting happens? Is that all explicitly spelled out somewhere?

Because if you think about it, I would want that to be done as efficiently as possible. That's the way that the cost is going to come down on all of it. What's acceptable to the agency in terms of saying, okay, that's been reviewed?

Is there an AI way of doing it so you could review 500 hours of it in ten minutes, because all of the nuggets of what you actually need to look at -- watching a guy coiling leaders isn't all that exciting in terms of the research that needs to happen. The exciting part happens in a very small period of time.

Now that there's the potential of that cost coming forth to the industry, it's interesting to see how best to do that efficiently, if that's going to be the case.

MR. DURKEE: Yes. I wish Ian Miller was here. He's the most tapped into the nuts and bolts of it.

The answer is that yes, they're looking at AI machine learning. It's not there though. The way it looks right now, at least with the current vendor,
is they get video. And that video is able to tag when a catch event occurs.

So they have tags they can fast-forward to and watch it at a little bit of a faster rate, and slow it down if they need to slow it down to see species ID. But if you're watching a three-hour haulback, you're not watching video for three hours. They're finding ways to do it more efficiently.

MR. PICKETT: So to follow up, this is the vendor that's determining this. Is there a set of parameters that governs the vendor?

This is the way that vendor does it. If I did it way faster -- I mean, not saying $I$ want to get involved in that business at all. Is there a set of parameters that is concrete that says that vendor is doing a good job?

MR. BROOKS: Basically, what are the specs that the vendor can handle?

MR. PICKETT: What are the specs, yes. What's the deliverable?

MR. McHALE: So there's a lot wrapped up there, Tim. Let's see if $I$ can unravel some of that.

The specs across the nation right now for EM programs underneath this model where the relationship between the EM provider and the vessel usually equates to a certain data deliverable back to the agency. So it is to the vendor's benefit to be most efficient.

That's being executed in a number of different ways across a number of different fisheries. The footage might be so easy that it's still the person in the dark room going through the footage and just noting whatever that program requires.

Both nationally here as well as internationally, as Steven just mentioned, whether it's AI or machine learning being introduced, that is more prolific in fisheries where there are large sample sizes to feed the algorithms.

So you actually remove the human component out of that equation. The software itself is scanning through the images and spitting out results that are then usually QA/QCed by some individual on the tail end of those outputs.

So it could actually be specific to the
program itself of what specs or what provisions would provide the side boards of what would be acceptable from the vendors to provide. But that's also where some of that cost savings and the free marketplace that Steve mentioned is at.

If I come to you as an EM provider and say, you know what? My 16-year-old son is going to be in a dark room reviewing your footage and here's the cost associated with it.

Versus Steve introduces, you know what? We already have data from the Pacific longline fisheries as well as the Atlantic longline fisheries, et cetera, that has already fed our algorithm. And we're going to be able to do that same review that would have taken the kid three hours -- we can do it in five minutes.

I don't know how that would equate to their business model of then selling their product to you to engage in that business relationship, but I think those are the dynamics in play.

There aren't necessarily current standards that say this is how that footage needs to be
reviewed. It's more this model of what are the outputs that then need to be delivered to the agency that keeps the vessel compliant and then keeps that vendor certified.

MR. BROOKS: So you're focusing on the deliverable, not the process?

MR. McHALE: Currently that's commonplace across the nation.

MR. BROOKS: Thanks.
Let me try to get around the room. Marcos and then over to Matt.

MR. HANKE: I'm making an exercise of breathing deep because $I$ want to hold all my feelings the way I feel now. I'm going to use myself a representative of recreational charter industry.

I'm seeing something that is unfair, deeply unfair, because I'm not seeing historically any similar effort to require recreational charters to produce the same level of EM or reporting or whatever.

I cannot imagine requesting them to pay for it, but you're asking to the longline industry to pay for something even though they produce the
information that most of the NGOs, agencies, and everybody uses for the best science to manage fisheries.

And that's totally unfair. That's not correct. We need to do a better job on that part because otherwise, it's going to keep reprimanding the kid that behaved well in my house just because he's easier to reprimand, hat kid that doesn't fight back to me or cannot have a say because he's tied at the hands or something.

There is a level of injustice. That's why I'm really -- I want to describe what I feel. I feel deeply messed up inside by this fact, being a charter and a recreational fisherman.

The point that things are brought to the table is super important. This is based on ignorance too, but I know that there are simpler systems out there with solar panels and other alternatives that can serve two purposes.

Maybe a substitute or a different technology that is cheaper, a smaller unit that can be added, implemented, or coordinated with other videos
or whatever gadgets you want to put out there. I don't want to mention the name of the provider, but we need to make sure that we don't keep beating up the longline industry.

I have something else to say that I
forgot. And I'm sorry. I'm being passionate about it because when $I$ see something that is really offset, I have to speak up, otherwise $I$ cannot sleep at night tonight.

I want also to say -- I need to say this -- I don't know what happens after you guys leave the room, to your house, to your office, and the driving forces behind moving things along. I know the quality of people that you guys sitting here are and I trust you guys. I want you to stay that. I would not like to be in the position that you guys are.

But at the same time, $I$ know what happens when the fishermen get back home or they get back to the boats if they follow what is being said on the presentation. The other part $I$ don't know.

I'm really sorry. I was trying to hold on. I didn't know if $I$ needed to say this. I keep
inviting and really congratulate Pete and Dewey for life to put the two sectors together, to try to find the best solution, and not to compete because competing and polarizing, $I$ am tired of that.

That will not take the country, the fisheries, or anything in this world to a better position. It's going to take longer, it's going to be efficient, and we cannot get on that route. I'm sorry. Thank you.

MR. BROOKS: Thanks, Marcos.
Randy?
MR. BLANKINSHIP: Marcos, I completely appreciate the points that you're making, and the feelings that you feel and that others share around the table. That aspect of fisheries management is part of what makes it a very hard job because, well, it is. The regulatory process is not an easy one and there's cost involved.

In response, $I$ do just want to clarify or provide information and harken back to the authorities that are provided, primarily in this case under the Magnuson-Stevens Act. The agency has the authority
under the MSA to require monitoring and other measures under MSA 303(b).

And as a general principle, the industry and others in the regulated public bear the compliance and regulatory costs. That has been the case for years and years, and it continues to be the case. Of course, many of you are aware that there are some court cases around, and one in particular that got some attention last week, that some of this is being brought into question. It will be interesting to see how that plays out over time.

Nevertheless, there is no change in the guidance that we have and the authorities that we have under Magnuson Act. Thanks.

MR. BROOKS: Thanks.
Just a program note, we are going to need to shift here in about no more than ten minutes just so we can get through everything else we have to do, and then have a little bit of break before we come back together at 6:00 for the public. So folks still in the queue, $I$ just ask you to help me in that.

Matt, let's go to you. Then Steve, then

Bob, then Rick. Matt?
MR. HUTH: Well, I was just going to say I appreciate you feeling sorry for us. I feel sorry for us too.

I'm just looking back at these amendments that have happened over the years. We started with 570 votes. I can't remember what -- that was before Amendment 7. Then we went to 135 votes on Amendment 7. These numbers might not be precise. Amendment 13, 70 votes.

I mean, this Amendment 15, this could do us in. We've got to figure something out here, guys. It's just hard to choke down. It really is. I don't know how to talk about it, but we're going to have to figure something out here.

And one question for you. How about the groundfish industry? Are they responsible? Have they been turned loose to pay for their monitoring or not yet?

MR. DURKEE: Not surprisingly, the groundfish situation is super complicated. So yes, the responsibility for paying for EM and observers has
been transferred over to the industry.
The industry was paying very briefly and Congress has provided funding to reimburse those fishermen. So yes, officially it's with the vessel owners, but they're not footing the bill in the end.

MR. HUTH: Do they have contracts with the vendors themselves or are you also facilitating that? Are they on their own as far as finding vendors to watch them or whatever, and the equipment?

MR. DURKEE: It's the latter. It's like this program's developed where NMFS is setting some different standards, and the vessels and vendors have a direct relationship on how they're providing those services.

In that situation there are nine vendors that are providing EM services. So this isn't just a very small niche market. There's a handful of vendors that are providing these services, at least in that groundfish industry.

MR. BROOKS: Thanks.
Steve?
MR. GETO: Thanks, Bennett.

I've got my business consultant hat on, which I spend 90 percent of my life doing. If I went to any of my clients and told them a regulation was coming down that was going to take 19 percent of their revenue, most of them would be packing it in. It's high.

Small businesses don't have that kind of a profit margin at the end of the day. I look at \$9,000 a trip in revenue, 25 percent coming off for the crew, 300 or 400 gallons of fuel, maybe 500 gallons of fuel at $\$ 5$.

There has to be a way to step this cost down because to me, the cost has to be around $\$ 250$ a trip for this to be a workable solution within the economic structure that these guys are working in. I'm not sure you're going to find vendors doing back flips to go after a market of 70 boats with that kind of a revenue opportunity.

You look at big security companies or technology companies, they're trying to sell us cell phones in the general population where there's a big market. This is not going to be a big market for
somebody.
So maybe looking at a way to step this down where there's cost sharing as technology maybe improves. It's pared off over time so that these guys don't bear the burden of $\$ 1,600$ a trip up front. That will kill them. Thank you.

MR. BROOKS: Thanks, Steve.
Bob?
MR. HUMPHREY: I'll be brief, but I want extra points later for being brief. I was going to say exactly what Marcos said and for the reasons he said it. I feel exactly the same way.

And I was going to say what Matt said. How many more straws are we going to pile on the camel's back before it just caves in? I really feel for these guys. And $I$ hope that there's an alternative solution that we can come up with.

MR. BROOKS: Thanks, Bob.
Rick Weber?
MR. WEBER: I'd like to say if that's angry Marcos, that was amazing. He's sorry for the raised tones that he brought.

MR. HANKE: If it moved you guys, it's effective. Thank you.

MR. WEBER: And I pretty much want to follow in his tone. It's my nature, as you know, to go ahead and do it in case I have any other little gem here that adds in.

I start with saying I know it's no one in this room. It's a directive that you have to comply with. But perhaps you guys -- and I defer -- perhaps there is a way to creatively comply.

I will leave it to you to figure out what I'm saying there because I'm not sure, but you have to comply. I can't say, why don't you not comply? You're going to comply, but what goes into the formula you may have some controls over.

I will say that for a directive that came out in 2019, it doesn't seem fair that this is coming as a surprise in 2023. It seems like you should have come pretty quickly and said, we are under a directive. We're going to push it out for as long as we can, but this is coming your way. Maybe you did do that. I don't remember it.

I consider the precedent scary. I can see a Quantech person asking for their $\$ 20$ to perform an LPS or some such silliness. There's no limit to what could be pushed out once we start saying, let's get into cost shifting.

I don't know where it goes next. But again, I am not accusing anyone in this room. I'm saying it's a scary directive and you have to understand that for the whole of us, it is a scary directive.

As for the price coming down, I think you could ask any researcher how much the price of satellite tags has come down despite being in a competitive market. And they haven't. It's still like throwing a very expensive laptop overboard every time. It hasn't happened even though in theory it is a competitive market.

I think it is naive to believe that we will stop at bluefin tuna. You're proposing this as bluefin tuna, but $I$ can see OPR or anyone else coming through at any time and simply adding onto the burden.

I think it's naive to say this is just for
bluefin tuna and we'll be able to keep costs low because it's bluefin tuna, and once the process is in place someone is going to come with an impassioned reason that you have to look for their species.

Siding with everything that everyone else has said is, again, I think very little of this is things that you guys don't know deeply, but I need you to hear it so you can pass it further up the chain.

And that is that any pound of fish caught by any longline other than US longline is a dirtier fish. Every time we lose a ton of capacity, we are hurting the environment.

When they say we're going to lose a couple of boats, that is a couple of boat tons that will be caught by some other fishery in some other country, which I assure you is dirtier. We have the cleanest longline in the world. And every one of those guys that stops fishing is worse for the environment.

I do not celebrate the loss of an American longliner. I mourn the loss of an American longliner because it is worse for the environment. I know it is worse for the environment.

These are the most honest longliners in the world. They are the most transparent longliners in the world and we are losing them. That is not something that is good. That is inherently bad.

All of that said, let me play and just give you the one question which is in the middle of cost sharing, when they're able to pick their vendor but you're paying 50 percent, how does that work? Do they provide you the bill and you pay them back 50 percent of it? Or do you cut direct checks to the vendor?

I don't actually need an answer for it, but it's something you need to work out because I'm sitting here going, they can choose their vendor but we're paying 50 percent. I'm not sure what that looks like in transition, but I'm hoping it doesn't come.

MR. DURKEE: It's definitely a good question. Of all the complexity we've discussed today, that seems like the easiest problem to fix.

MR. BROOKS: All right. Randy?
MR. BLANKINSHIP: Earlier on, Rick, in
some of your comments you were talking about the
surprise of this policy. It was issued in 2019.
Earlier, I think it was Steve that alluded to the timing with our electronic monitoring program as part of the IBQ program that was implemented in 2015 under Amendment 7, which predated the cost allocation policy in 2019.

So there were some advantages from that implementation perspective where the agency covered all of the costs for quite some time. That has continued to occur for as long as we've been able to make it occur. As it became apparent that because of limited funds we were not going to be able to continue to do that, we started to signal what was coming.

Last year, some of you may remember that I had a presentation where I actually presented the 2019 cost allocation policy because it's on the horizon that we were going to have to work towards implementing it. So just to speak a little bit to what you were talking about.

MR. BROOKS: Amy, are you dying to say the last word here?

MS. DUKES: Yes. Thank you.

Just two questions. Is there something driving these two whammy sections of Amendment 15 to be pushed together to be implemented right now versus having this many separated out into two amendments?

Also, if alternative $F 3$ were to be the preferred alternative, what loss of data would be negatively impacting HMS for you guys to be able to do regulatory authority?

MR. BLANKINSHIP: They're paired together -- bear with me -- because there's a relationship between the scope of electronic monitoring from where it's been to account for bluefin tuna to what it would be under Amendment 15, which is a broader scope.

Truthfully, it is to try to provide some benefits of having electronic monitoring in addition to just accounting for bluefin and constraining as a tool, to help constrain the longline category within its longline quota for bluefin.

And so it is an attempt to try to help
realize some of those benefits in the form of access to closed areas in a systematic way over time. There is a relationship there.

Steve?
MR. DURKEE: So your question, Amy, was if we were to take alternative F3, which removes the EM component but maintains the IBQ program, what kind of data do you lose?

There is a bit of a question mark on that. Right now most of our data comes from those VMS set reports and from the landings, from those bluefin tuna that are being sold.

So to what extent is the EM program supporting compliance with those VMS set reports coming in? It's happening in open water. How are we accounting for that mortality?

I don't have a solid answer for you. Brad is standing up, if he has an answer. I'm interested as well, but $I$ don't have a solid answer for you.

MR. McHALE: So I'll just reflect back what or shall I say why the EM program was initiated as a result of Amendment 7. To address the bluefin tuna discard events that were happening 2012, 2013, 2014, hence the premise of Amendment 7, the catch share program entered stage right.

Around this table and extensively through public comment, a resounding feedback was that without some sort of independent monitoring of fishery dependent data collection, whether it be through VMS set reports or log books, given the level of observer coverage deployed in the fleet and given the incentives to misreport every bluefin tuna I reported into my IBQ puts me in one more predicament of maybe not being able to pursue swordfish.

There had to be some sort of independent verification tool there. And that was really the driver that introduced electronic monitoring to this particular fishery.

MR. BROOKS: Thanks, Brad.
MR. McHALE: It was those dynamics.
MR. BROOKS: Thanks.
MR. McHALE: And they're all part of the record with Amendment 7.

MR. BROOKS: So I want to remind us that we're going to at 6:00 be able to continue rolling this conversation forward and encourage us to.

David, I know you wanted to get in a word
here. Can I give you 30 seconds?
MR. SCHALIT: That's all I need.
Brandy, Cale, Larry, Steve, could you just take us through the time line, all the way through to final rule on this? Thanks.

MR. BROOKS: Thank you.
MR. DURKEE: Comment period closes September 15th. That's when we start working on the final rule. Perhaps late winter 2024, perhaps spring/summer. Karyl would have a better idea on time line maybe.

MR. BROOKS: She doesn't look too eager to jump on. I think she's good with what you said. Karyl?

MS. BREWSTER-GEISZ: So yes, what Steve said is true. It also depends, keep in mind, how I ended the last session. Depending upon the comments we hear, we may need to do some rethinking and implement it even later. So we'll just go through the proposed and see what happens.

MR. SCHALIT: So your guesstimate on the range for when we arrive to final rule would be mas o
menos what?
MS. BREWSTER-GEISZ: At the earliest, probably spring/summer next year.

MR. DURKEE: At the earliest.
MR. BROOKS: Okay. Thanks.
I just want to again thank everyone for this conversation. This is hard. I think that's acknowledged by everyone around the table. I appreciate it.

Again, a lot of really important and meaningful concerns put on the table. Let's just keep rolling this conversation forward and keep hacking away at it.

We are wanting to invite Jamie Reinhardt up with NOAA's Office of Habitat Conservation to really shift to the Deepwater Horizon Restoration update.

We are supposed to be going to public comment at 5:00. We will miss that mark. So for members of the public who are on in the room or online, hopefully we'll get to public comment not later than 5:15. Thanks for bearing with us.

MR. REINHARDT: Well, thank you all for providing me the time to address you today. My name is Jamie Reinhardt and I work for the NOAA Restoration Center for the Deepwater Horizon Restoration Program. One of my main responsibilities is to help design, develop, and implement restoration projects to help restore the fish that were injured during the Deepwater Horizon oil spill.

I'm going to be pretty brief today, knowing that you all have had a very busy schedule and will continue to have a busy schedule. But I do want to just provide a few quick updates from the Deepwater Horizon Restoration Program without going into too much depth on any one of these activities.

So this will be a high-level overview. I think there will be time for a few questions at the end. Probably most importantly, I'll be able to provide contacts and information to you all so that if there is any need for follow-up or more detailed questions, then we can do that.

I'm going to have slides for a few activities here, including slides for the Hot Spots

Mapping Initiative, the Bluefin Tuna Restoration Program, and a new activity that's just getting started entitled the Characterizations of Caribbean Fisheries Interactions with HMS.

While I don't have a slide for the last bullet point up here, I do want to make sure that everyone is aware of a proposed restoration project as part of the Open Ocean Restoration Plan 3, which includes restoration for seabirds.

Getting to my talking points on Restoration Plan 3, on March 14th the Deepwater Horizon Open Ocean Trustee Implementation Group released a draft plan to help restore bird species injured by the 2010 oil spill.

After consideration of many project ideas, the draft plan evaluates 11 project alternatives and proposes the selection of seven preferred projects for a total cost of $\$ 26$ million. And a 45 -day comment process on that draft plan just recently closed on April 28th.

One of these proposed projects is called the Seabird Bycatch Reduction in the Northeast US and

Atlantic Canada Fisheries. This project would work cooperatively with interested commercial fisheries to develop voluntary strategies to reduce interactions with seabirds, especially northern gannets and great shearwaters.

This project proposes a phased set of restoration activities such as pilot testing strategies to reduce seabird interaction such as baiting practice, modifications, visual deterrents, gear switching, and modification and adjustments to gear soak time.

The second component would be identifying and prioritizing these strategies through a set of models. The third component would be establishing expanding partnerships with interested commercial fisheries.

And the fourth component would be to continue testing field studies and other activities that would help expand our understanding of seabird-fisheries interactions, and to support voluntary adoptions of effective strategies.

The project is estimated to cost about \$5
million and would be implemented over a six-year time frame. The Open Ocean Trustee Implementation Group is currently considering the public comments that they received before they are going to finalize the restoration plan.

The final restoration plan will be released to the public on the trustee's website, which is GulfSpillRestoration.noaa.gov.

Caleb Spiegel at the Fish and Wildlife Service is the primary point of contact for this project. His contact information will be at the end.

Lee Benaka, over here in the back, is also available to answer any specific questions about the proposed project.

Okay. So onto ongoing restoration projects. This project is entitled the Hotspots Mapping Initiative. The goal of this project is to reduce bycatch by supporting collaborations among fishermen and anglers to share fishing information, develop communication and mapping tools to avoid unwanted fishing interactions, and to improve fishing experiences.

This five-year voluntary, non-regulatory project is evaluating the feasibility of a fisheries hotspots communication network to improve fishing in and around the Gulf of Mexico. Using technology, fishermen and anglers can share information and maps through a trusted partner about high bycatch or predation areas that they are seeing while on the water.

If this project team can identify groups that are interested in implementing this type of approach, additional implementation funding could be proposed after the first phase of this project.

So what are the criteria for mapping hotspots? It should be to improve commercial and recreational fishing experiences, to keep unwanted catch in the water so that they can grow and reproduce for future fishing opportunities, and help avoid predators that damage fishing gear and eat target catches.

The next step for this project includes: continuing to solicit volunteers to fill out NFWF's brief and confidential interest form; to interview and
hold group discussions with more charter boat captains, members of the HMS community, shrimp fisheries, private anglers, and other stakeholders; And a process to inventory existing data sets and technologies; identify gaps in the available data and technologies on boats; and to develop sample products that could help support the project.

So again, I'll point out Lee -- he doesn't need to stand again -- as a primary point of contact for this. Also, in the back there is a little card. I think it's on the back table there. It looks like this. It has a little QR code here for anybody interested in learning more about the project or suggesting their interest in working with NFWF.

Gray Redding back there is also working on this project as a primary point of contact for NFWF, who is helping NOAA implement the project.

The next project is the Bluefin Tuna Restoration Project. The idea for the Bluefin Tuna Restoration Project originated from previous work, the weak hook studies, which some of you may be familiar with or I know folks here are familiar with. Those
were conducted back in 2012 with the Gulf of Mexico longline fleet.

The data from pop-up satellite archival tags indicated that bluefin tuna spend most of their time at the same depth where pelagic longline gear is commonly set, between 50 and 110 meters, while yellowfin tuna utilize more of the water column from 30 to 200 meters.

This concept provides the foundation for the current demonstration study. If pelagic longline gear is set at greater depth, bluefin tuna interactions should decrease without impacting yellowfin tuna catch.

Therefore, the goal of this project is to understand if bluefin tuna interactions can be reduced in the Gulf of Mexico pelagic longline fishery by setting gear at greater depths by doubling the depth of the standard buoy line.

Other objectives of the project include evaluating yellowfin and bluefin tuna interactions using temperature and depth recorders, evaluating bluefin tuna mortality at various depths using
temperature depth recorders, and evaluating migration and other behavioral patterns of yellowfin and bluefin tuna using satellite tags.

Over the project's four-year sampling period, up to 16 pelagic longline fishermen will be recruited to complete alternating sets targeting tuna species. These alternating sets will consist of one standard set and one deep set, where the deep set buoy lines will range from 20 to 24 fathoms for a total depth deeper than 110 meters. Additionally, 40 satellite tags will be deployed on yellowfin and bluefin tuna throughout the next four years.

If the data supports the reduction of bluefin tuna interactions without affecting yellowfin tuna catch, this means that the deeper set depth would enable more bluefin tuna to grow and reproduce, ultimately contributing to the restoration, which is the goal of our program.

And additionally, we anticipate that pelagic longline fishermen might be interested in voluntarily adopting this new approach because of potential economic benefit.

So we have Amy Piko in the back, who is a primary point of contact for NOAA on this project. And Abby Vaughn, who is online currently, with Mississippi State, sitting in for Marcus Drymon, is also a primary point of contact for the project if people are interested in learning more.

Lastly, I wanted to mention a new activity that has recently been funded, the Characterization of Caribbean Fisheries Interactions with Highly Migratory Species Project.

The objective of this project is to collect and evaluate existing fisheries' data from Caribbean nations to identify restoration opportunities and to support future restoration planning in the Caribbean for HMS. In particular, this includes yellowfin and billfish.

This overarching objective has three main components. The first is to compile data from Caribbean nations into existing or new data systems; to evaluate the breadth and limitations of this data; thirdly, to identify the greatest threats, both from a fisheries perspective and a geographic perspective, in
the Caribbean; and ultimately, to identify potential areas to conduct restoration.

This project will be implemented over the next three calendar years and has a total budget of $\$ 382,000$. The project team is currently developing an implementation approach that will work with international partner organizations to get this work done.

Here I wanted to show primary points of contact for the various projects that $I$ just described. I'd also offer myself as someone who has an open door policy to discuss the Deepwater Horizon Program, opportunities for the fisheries communities to work with restoration planners to help benefit and contribute to the Deepwater Horizon Restoration Program.

Of course, if you're in contact with folks from the HMS division, I'm sure they'd be happy to put you in touch with me as well. Thank you very much.

MR. BROOKS: Great. Thanks so much, Jamie.
comments. I see Marcos, David, Dewey.
MR. HANKE: I'm happy to see Caribbean many times on the screen. This was not like this when I started on this body. Thank you for that.

I would like to know the organizations that you are mentioning, the private organizations that are involved on the Caribbean project.

The other thing I want to mention, the Caribbean Council is involved with the support of NOAA to do work with WECAFC, OSPESCA, and other Caribbean-wide organizations in different working groups. One of them is an M5 working group.

I highly recommend because of this initiative to engage to assist those meetings. We can talk later to help you out because I think it's going to help you out a lot on characterization of the use of the ones that have relationship with HMS and those other elements. There is a big record behind it that you can benefit from. Thank you.

MR. BROOKS: Thank you, Marcos, for those suggestions.

David?

MR. SHIELDS: Thanks for the presentation. Just a few questions or clarifications. The 40 PSATs you mentioned that will be deployed on bluefin over a four-year period, my assumption is -- you can correct me -- that you're looking to collect data on the vertical movements of bluefin and yellowfin to validate your theory.

MR. REINHARDT: Yes, not just vertical movement but horizontal movement as well.

MR. SCHALIT: My next question is I assume these will be deployed by scientists from a GRAP university, yes?

MR. REINHARDT: Amy, do you want to answer that question? Have we determined who exactly is going to be deploying that? Are we using observers to help deploy those?

We've worked with the pelagic observer program from the Southeast Fisheries Science Center to deploy satellite tags. So we'll likely work with them to continue deploying some of these tags. There's potential that we could have other partners deploy tags as well.

MR. SCHALIT: So you will be wanting to do some outreach, I would assume, with the pelagic longline fishermen on this project.

MR. REINHARDT: Absolutely.
MR. SCHALIT: Okay. We happen to have a representative from that fleet in this room at this moment. I think it's key that they understand. You're giving us some really interesting science here.

You're telling us that if they place their gear in a certain location of the water column, they can actually increase their yellowfin catch and decrease their bluefin catch. That sounds very interesting. Thank you.

MR. REINHARDT: Yes. Thanks for that
comment. We're hopeful that we'll be able to collect that data and it will be useful for the fleet.

MR. BROOKS: Thanks, David.
Dewey?
MR. HEMILRIGHT: Given that we've seen numerous presentations, or $I$ have over the years, with BP funding of money for different things, I was wondering if maybe you all could come up with $\$ 1.1$
million to fund the pelagic longline industry's electronic monitoring program and cameras.

I know that it would probably be a very positive outcome for all, given that we have to use it for bluefin tuna. Particularly on the East Coast, I know the explosion of bluefin tuna, the stocks are very healthy.

I was just curious if maybe when we're looking at these things -- there's been quite a few dollars spent on some initiatives and we're still looking for the outcome of some of them, particularly the ones that had to do with fishermen looking at alternative gear. That was a $\$ 20$ million project in my understanding.

Would you be the one that would produce the results of what happened over the five years or what was actually caught, shown, and the various things like that?

Particularly if it could be finding \$1.1 million, I know personally I would really be appreciative of that. I know others and fishermen in the Gulf would be also. Thank you.

MR. REINHARDT: Thanks for that. I heard two points there. One was the results of the Oceanic Fish Restoration Project, which we don't have final results from the monitoring of that project yet. We are kind of in process of putting together our final analysis of that. We do have interim reports that are available online.

I might already have your email address, but we can follow up and provide you those interim reports so that you could understand our current state. And then also once that final is reported, hopefully we can make that known to the longline community more generally.

And to your first point regarding funding available to the longline community, I won't talk specifically about the need that the fleet has regarding the $\$ 1.1$ million.

It's my true hope that when we develop and create restoration projects, we work closely with our partners including the folks that are fishing, and that we are doing our best to create win-win opportunities with the fleet.

Our primary goal is to restore the injured resources. That means doing something that benefits tuna and billfish in respect to the HMS world. There's a lot of other things that were injured out there.

I'm happy to talk to folks and consider all ideas that are coming to the table in order to create those opportunities for restoration. And we want those opportunities to also benefit the people that are working with the fleets themselves.

MR. BROOKS: Thanks, Jamie.
I'm going to let you talk with him when we break because I've got to keep pushing us forward here. If we have time after public comment, I'll come back to you, Dewey.

I want to get to Mike and Tim. And then I've got Charlie online.

MR. PIERDINOCK: Thank you, Jamie, for your presentation. I'm a little bit interested here in the longline study with bluefin tuna and yellowfin tuna. We have the need for getting DNA samples for juvenile as well as commercial-size bluefin tuna to
help us in our five-year management strategy evaluation that will come up in 2029.

To fill that data set, is there communication with Walt Golet, who has had significant outreach to many around this table and beyond these walls to get those samples? Will that be included in that? And then I know also Walt is involved with the yellowfin tuna and with ongoing studies.

This is the kind of thing I look at with cooperative research where if the vessel's already out there and there's just a few additional things that could be done to help the US data set for quotas and for fishery management in the future, this provides the mechanism to do that.

So has that happened here with Walt for DNA, for juvenile bluefin as well as commercial, as well as many other needs we may have overall for yellowfin tuna? It would be a great opportunity to make that work.

MR. REINHARDT: Yes. Thanks for bringing that specific example up. I don't think that coordination has happened.

I would encourage folks to reach out to Abby Vaughn using this email address and say, hey, we have a need for collecting these samples. I think Abby would be able to take that back to the project management team, and they would be able to consider that and look for opportunities to work collaboratively.

I will point out that a number of these restoration projects serve as a useful platform for collaboration. The Oceanic Fish Restoration Project, which I think Dewey had brought up, has enacted a number of collaborative things with our partners.
$E M, ~ f o r ~ e x a m p l e, ~ w h e r e ~ w e ' v e ~ w o r k e d ~ w i t h ~$ NFWF to explore what can work for monitoring alternative gear types. And hopefully we've been collaborative with the fishing community themselves to explore opportunities for them to be more efficient with new gear types as well.

So I would say that a number of these projects have had opportunities to create collaborations with partners.

MR. BROOKS: Tim?

MR. PICKETT: Maybe I'll just circle with Abby at some point, but I'd like to see the procedural layout of the restoration project, the changes in the gear and things like that that they're trying to test, and the behavior of all that.

Deep setting longline gear is not a new thing. There's a big brain trust in terms of that fishery that's on the East Coast and developing on the East Coast, and certainly in the Pacific fishery. I mean, it's a huge brain trust.

Whatever information we could extrapolate from that technique-wise with some known quantities, I'd just like to see how that all lays out. There's a lot more dynamics than changing the length of the buoy drops in terms of the way things are going to behave.

A lot of these unknowns with TDRs and stuff like that are pretty known quantities and a pretty tested thing. So I just would kind of like to see that and maybe have some input in terms of how that might go down.

MR. BROOKS: Thanks, Tim.
MR. REINHARDT: Yes, Tim. I think Abby

Vaughn would be the right contact for you.
MR. BROOKS: All right. Let me bring in one final panel member for this conversation.

Charlie Bergmann, we're going to open you up to come in.

MR. BERGMANN: When your final report comes out and your other reports that are not quite final yet, will that include the species and species length and weights that were caught on the alternative gear?

MR. REINHARDT: That would include averages and measures of the distribution of those species lengths and weights. In that report we're not likely going to have each individual, but we could probably work with you to pass you that data if that's necessary.

Thanks, Charlie. You're the first person who's going to get the report.

MR. BROOKS: Thanks, Charlie, very much.
All right, Jamie. I think we are going to say thank you. I appreciate you coming here and making the time. Sorry we're a little late getting to
you today.
MR. REINHARDT: Thank you very much for sharing your time. Bye.

MR. BROOKS: Thanks.
All right. We want to get to public comment now. It would be helpful if I can see both in the room and online the number of folks who might want to make a public comment so $I$ can just sort of divvy up the time accordingly.

I see one, two, three, four in the room, five. Okay. And online, if you would raise a virtual hand. I see two hands up, so I think I've got about seven people.

We need to be out of here not past 20 of.
So if we can take up to two minutes each, that would be great. I'm going to start in the room. Again, if we can keep it to two minutes each.

I invite folks to start with name, affiliation, and topic. Come up to the table so we can get you to the mic. And $I$ just remind everyone that this is not an opportunity for a back and forth with HMS staff, but an opportunity for HMS staff to
hear what is on your mind.
With that, Marty, we'll go to you first. You're there. We'll start.

MR. SCANLON: Hello. Marty Scanlon. I'm President of Blue Water Fisherman's Association. We've been representing the pelagic longline industry in this country since 1990, so we're pretty familiar with most of the topics that are on the table here today.

I'll start in reverse order really, talking about the Deepwater Horizon and the question asked about the money. I attended a seminar here over the fall in New Orleans dealing with Deepwater Horizon and some of the restoration projects.

It was brought to my attention there's quite a bit of money still available in the Deepwater Restoration Project there. It's going to take a little bit of thinking outside the box in order to mine some of that money.

I've always felt that one of the failures of Blue Water and the industry itself is that through A7 we allowed NFMS to separate us, to segregate us
into categories -- Atlantic, Gulf of Mexico, and the Distant-Water Fleet -- essentially protecting Deepwater Horizon from compensating the entire HMS industry from the damages that were done during Deepwater Horizon.

The Atlantic boats got none of that money, even though we have been subjected to the consequences of that tragedy.

This might be one of those opportunities where Deepwater Horizon can think outside the box and come up with the money to help fund the data that's being collected through spatial management in order to benefit the entire fisheries. So that's something that we might want to consider, and Deepwater Horizon may want to start thinking in that direction.

One of the things I wasn't here for yesterday was as far as the allocations with the bluefin tuna IBQ. It's appalling to the industry itself that the burden has fallen upon the individual fisherman to have to fix this problem when NFMS themselves realized it had nothing to do with the fishermen themselves.

The miscommunication between NFMS itself, the providers of the EM units, and the oversight that was being conducted is a failure on their part.

With a brand new IBQ system being implemented this year for the first time, now they're taking the time to utilize every means at their disposal that our fishermen are subjected to between log book reporting, observer coverage, the EM units themselves. Not to double-check themselves to make sure that this went off without a glitch, but instead they just wanted to go forward.

And now the burden of proof has fallen on the individual fisherman to get their rightful IBQ allocated to them. We're already into the month of May where the IBQ becomes almost meaningless to us now.

We don't interact with many bluefin after June. So these boats have been penalized without getting their proper IBQ this whole time.

MR. BROOKS: We're almost at three minutes, Marty. I'm sorry to push.

MR. SCANLON: All right. Well, the other
thing here is I'll save most of my comments on A15 for the discussion this afternoon. So that's why I'm just taking the time on these things that I can touch base on right now.

I'll proceed with A15 later on today, but those are the few things that I wanted to point out. We still have fishermen here that have not gotten their allocation resolved yet. That's criminal.

MR. BROOKS: Thanks.
MR. SCANLON: I'll leave it at that.
MR. BROOKS: Thank you, Marty.
Who wants to come up next? Please start with name and affiliation. Thanks.

MR. SHIELDS: My name is David Shields. I'm an owner-operator of a pelagic longline out of Wanchese.

After the last couple of days of listening to this meeting, $I$ feel like I'm reiterating and I'm beating a dead horse about these things with these bluefins. But at the same time, I feel like I with my associates am the dead horse.

We feel like we are just getting
completely beat down. In the last couple of days, all I'm hearing is we're losing places. It's costing us more money.

I am a small vessel. Several times I make sets of 150 hooks or less to test the water to see if there's anything in there that might be dangerous and we might not want to catch.

If this goes through, I'm going to be punished for trying to conserve what you want to conserve. And I just don't feel like that's right.

With the money that's going to be coming out potentially, this will bury me. I would be making an additional boat payment every time I go fishing on top of my boat payment. And I don't know where this is going to be able to come from and I don't know where it's going to be.

I've talked to my crew and they know about this. Both of them have already talked about leaving the industry and finding something else to do. So I don't know even where to go, but I ask you guys to please consider what you're doing and what is being implemented, as well as the blue box.

There has never been bluefins recorded in certain months, but yet we have to have these electronic monitoring systems on our boats. And now we have to pay per set for something that's never happened. I don't think that's right. Thank you.

MR. BROOKS: Thanks, David.
Who would like to come next?
Yes. Please come on up. And again, if you could just start with name and affiliation. Thanks.

MS. BORQUE: Hi. My name is Kathleen Borque. I am a resident of the Outer Banks. I'm a graduate of Loyola University, Maryland. I'm just a concerned citizen.

First, I want to thank you for taking the time to create and present everything that has been talked about over the past couple of days. I've learned a lot.

I'll start by asking you the question, what has happened to the American fisherman? If your seafood is coming from a United States fishery, it is by law coming from a sustainable fishery.

In 1996, law makers adopted the Sustainable Fisheries Act as a substantial amendment to the Magnuson-Stevens to combat the declining fish population and the fish stock collapse in the 90s. It is perhaps the most aggressive conservation law currently in place in the world, and demands at face value far more scientific precision and knowledge than is deliverable.

NOAA's website states a truly sustainable seafood industry also sustains the many communities that rely on that seafood for their livelihoods, cultural practices, and nutrition. NOAA Fisheries work directly impacts the economic opportunities, health, and environment of many communities, both domestic and international.

Underfishing, which has become common in the United States, occurs when the fish are harvested at a rate lower than would produce the maximum sustainable yield. While maintaining a sustainable fishery is paramount in oceanic and fish conservation efforts, it has been reported that as much as 20 to 30 percent of potential yield is lost by overly cautious
management.
In 1996, there were 430 pelagic longline boats that completed a successful set. As of today that number has decreased to roughly 70. That is nearly an 84 percent decrease in pelagic longliners since the year $I$ was born.

The United States now ranks 18th worldwide as an aquaculture producer after having once been among the top five producers worldwide, yet our country is a leading global importer of fish and fishery products as well as a key provider of technology, feed, equipment, and investment capital to other producers around the world.

MR. BROOKS: Kathleen, $I$ just need to let you know we're almost at time here.

MS. BORQUE: Thank you. I'll finish my time.

According to NOAA, America imports anywhere from 70 to 85 percent of its seafood. In 2020, the United States imported over six billion pounds of seafood worth over $\$ 21$ billion, making for a national seafood trade deficit growth of $\$ 17$ billion.

The United States imported \$2.4 billion worth of seafood from illegal, unreported, and unregulated fishing in 2019, accounting for roughly 11 percent of total US seafood imports according to the US International Trade Commission.

So I ask you again, what has happened to the American fisherman? The present day American fisherman has his back against the wall. The present day American fisherman is consistently told to jump and he asks, how high?

The present day American fisherman is watching his vocation, his passion, and what was once a vibrant community disappear with each amendment, each theoretical model, each hook that he baits with a prayer, hoping to be heard.

For many of these fishermen, their livelihoods on the water have been passed down and taught for generations. The fishing industry has been a boon in American economics and society since the pilgrims first set foot in Plymouth and the settlers arrived on Roanoke Island in 1584.

The Atlantic Ocean and the plentiful
source of food it provides have become entrenched in the hearts and minds of both fishermen and those who call these fishing regions home over the centuries.

Amendment 15 will force the pelagic longline industry to absorb the exorbitant cost of the data that they are mandated to collect, yet they will not be paid any more for the fish that they catch.

I have heard you all say many times that these things will potentially be pushed through, and I have heard a lot of maybes. I have also heard at the time of implementation and when it is implemented regarding the potential changes these presentations have been about.

How can we consider that discussion when decisions have already been made without the consideration of the questions and concerns of the most transparent longline fleet in the world?

How can we sit here and say that these US fisheries are sustainable if they are the ones telling you it is getting to a point where they can no longer depend on it as a livelihood, when data from our government proves that we are no longer supporting
them, but choosing to buy and import from other countries?

When you hear these men come before you and tell you enough is enough and, I'm done, how do you suppose they should respond to individuals at home who ask them, how's fishing been?

If you truly mourn the loss of the American fisherman, perhaps you should genuinely start listening to the concerns of the ones that are left. Thank you for your time.

MR. BROOKS: Thank you very much.
Is there anyone else in the room?
Please. And I've got four people online to come in too, so if you can be focused on the comments, $I$ want to make sure we can get everyone in. Thank you.

MR. REDDING: Yes. I'll be brief.
I'm Gray Redding with the National Fish and Wildlife Foundation. Just based on the nature of our organization, $I$ don't want to speak to any of the regulations, policy, or socioeconomic challenges this work that we've talked about today brings.

I just wanted to raise awareness that NFWF does have a competitive funding opportunity that seeks to support development, advancement, or innovation around electronic monitoring reporting in fisheries throughout the United States.

So these would be distinct competitive grants that could help fisheries develop and modernize EM or ER -- that will be talked about tomorrow -- and fund the innovations that folks have brought up around AI, more and faster concepts of data transfer, and even finding value for the fishery in the data that's collected through that technology.

I just want to clarify with that. It wouldn't be able to support the regulatory compliance, actually paying the costs that have been talked about today, but proposals and projects that talk about finding and seeking the innovations that lead to that efficiency could be eligible for the funding.

The request for proposals comes out approximately annually. The next one will be out in August of this year, just for those who have concepts on that. I'll be around for the Q\&A too.

MR. BROOKS: Thanks very much.
Let me go online now. I've got five people. Again, I ask all of you to limit your comments to no more than two minutes so we can hear from each of you.

Let's open up Alana's line first. Again, if you could start with name and affiliation. Thanks.

MS. ALANA: North Carolina. I have a retail market. I've been listening in today. I just have a couple of comments. I think anytime we can increase our commercial fishery and the sharks is going to be a good thing. In Hatteras that's really becoming a big fishery for us, the numbers of mackerel. So we really need to get that expanded if possible.

Then second, I'm curious about whether or not your science branch is going to start -- I know they inspect foreign shrimpers and such. And I'd like to know when we are getting to the point where we're going to be inspecting the international tuna vessels and swordfish vessels for importing their fish onto our market.

We've been doing it with the shrimpers now for a while. I'm just really concerned that it's never going to happen. I keep hearing it's going to happen, that you have to negotiate with Department of State, you have to do this, you have to do that.

So I know you can't respond to me, but I would just like that to stay in the back of your minds. And that's really all my comments for tonight. I appreciate your time.

MR. BROOKS: Great. Thanks, Alana. I appreciate it.

Glen Hopkins, you will be up next. Glen, are you there?

I'm not seeing him. Let's go to Jeff
Oden.
Jeff? Jeff, trying to get to you. Can you talk?

MR. ODEN: Do you hear me?
MR. BROOKS: Yes, I do. Thank you.
MR. ODEN: I was amazed the other day. I think most of you all know me as a former AP member. You should anyway. I was amazed the other day when

Dewey sent A15 to me. I actually thought we resolved everything last fall when I stepped in.

Anyway, I heard this evening a statement, the straw that broke the camel's back. This clearly will be. Our industry cannot endure this.

I wonder how many -- Brad, Randy, Karyl, I wonder if you all had to take a $\$ 280$ cab ride every morning to work, how long you'd stay here. That's essentially what you're asking us to do.

Being a fisherman is not a job. It's a leap of faith every day we leave the dock. When we leave the dock, we don't know what we're doing. Half the time we don't have faith in what we're going to try, but we do, and often we're surprised.

And other times, when we least expect it we come away with a win, which kind of ties into the prism. That is laughable as anything I've ever heard.

It's just mind-boggling what is being proposed here. Obviously, the only thing that's increasing in fisheries is management. That's pretty obvious from this prism document.

I've got a few other things to touch on,
the IBQ appeal. I'm one of the fishermen who has over an eighth of my IBQ that has been compromised. And after three times being asked to sign a petition for an appeal, $I$ finally got it. That was probably two and a half months ago.

As was said a little bit ago, we're running out of bluefin here shortly. My boat is compromised in fishing because of that. So it's criminal what's going on and that it's being allowed to drag along. It should roll. That's the sad truth.

One other thing. It was mentioned earlier about the vendor costs coming down on the monitoring. Well, that's about as laughable as can be because we go through the same thing in having to have a life raft retied every year. We used to before we had to repack them.

They were $\$ 400$. The other day I got one repacked and I was told it would be $\$ 1,100$. It was \$1,500. It's just going to escalate because we have to have it done, we've got to pay it, and we're fair game. That's all there is to that.

MR. BROOKS: Thanks.

MR. ODEN: One other discussion there.
MR. BROOKS: Jeff, I do need you to wrap up in the next ten to 15 seconds. Thanks.

MR. ODEN: One more minute. One other thing. I would like to thank Rick Weber for his comments earlier as a recent participant in the IAC.

The discussion came around to other countries and us potentially giving quota to them. Well, you can count on us giving them a lot if this goes through because there's going to be a lot of unused quota.

We're going to be buying not 90 percent of our seafood, as my understanding is. It's going to be well over that. And there's one agency that's responsible for it. That's all. Anyway, thank you for your time.

MR. BROOKS: Thanks very much, Jeff.
Let's bring in Jordan Brown.
MS. BROWN: Hello.
MR. BROOKS: We've got you.
MS. BROWN: Okay, great. Thank you to the Advisory Panel for inviting this public comment.

Currently the listing of certain shark species under CITES Appendix 2, which permits commercial trade, cannot be reconciled with the Shark Fin Sales Elimination Act, which prohibits any sale of shark fin and its derivatives in the United States.

Acknowledging the importance of conserving shark species, industry members who use shark fin derivatives for unique purposes such as medical devices would like the agency to recognize the role shark fin derivatives play in promoting public health.

We are asking the agency to flush out the Shark Fin Sales Elimination Act or potentially release guidance that better reflects the unique instances where the use of shark fins provides numerous benefits.

Thank you for the consideration. I yield the remainder of my time.

MR. BROOKS: Thanks so much.
Glen Hopkins, it looks like we have you back. Let's try to get you in again. Try again, Glen. It's not working.

Okay. Let's go to Rebecca Regnery. I
apologize if $I$ botched the name there.
MR. HOPKINS: Hello?
MS. REGNERY: Can you hear me?
MR. BROOKS: Yes. Rebecca, why don't you go.

And then Glen, I think we heard you. You can go right after.

Rebecca, go ahead.
MS. REGNERY: Okay. Actually, you said my name perfectly. Thank you very much.

Thank you for the opportunity to make a public comment. I will be brief and give the rest of my time to Glen.

I'm with Humane Society International and speaking on the topic of CITES as well. I second the statement made earlier by Sonja Fordham today on behalf of herself and others, including my organization, regarding CITES and possible candidates for the CITES review of the significant trade.

We are concerned about continued high levels of trade in shark species listed on Appendix 2 of CITES that are endangered, and echo Sonja's request
that the Fish and Wildlife Service and NOAA work together to play a leadership role at the upcoming CITES in June to address any unsustainable catch and trade, and the three species mentioned by Sonja earlier as a priority, which are great hammerheads, scallop hammerheads, and oceanic whitetips.

I note that this is a transparent process, and it is in the best interest of the United States and other countries that are compliant. It should facilitate capacity building for countries that need assistance with compliance and will have consequences should they fail to comply. Thank you.

MR. BROOKS: Thanks so much.
Glen, if you are still there and hearing me, please come in.

MR. HOPKINS: Okay. Are we there?
MR. BROOKS: Yes.
MR. HOPKINS: Okay, great. I'd just like to start off by saying that I agree and support all the comments. The burden of the EM use is way too much to bear. I'm not going to focus on that but there's comments to come, and I agree with all of
those.
I'd just like to take a different twist.
As someone who has been offshore fishing for 40 years, I've probably spent 15 years literally in the ocean. I'd like to offer a few observations and suggestions.

I will submit to you that HMS has done its job with the pelagic longline fleet. We monitor and gather data ad nauseam. Our spirits are broken and we are sedated on the reservation. The parallels between the American Indian and the commercial fishermen are quite interesting, if you think about it.

I would argue at this point the longline fleet is the low-hanging fruit that is now exhausted. You've gleaned everything you need to know about us.

If you're truly to do your job as fisheries managers, you need to put your precious time and resources into data collection and monitoring the recreational and charter fleet. This sector is exploding. The numbers are mind-blowing.

You have real issues to deal with created by the sheer volume of boats and people on the water. Environmentally, how about the carbon footprint from
such a large number? How about the habitat destruction of so many?

How about the fish eggs and larvae destroyed from all the props, intakes, and engines? Mishandling of undersized fish, misidentification of fish, fatal boat interaction; $I$ could go on and on.

All these add up to a huge concern over the HMS fish population. Mark my words, if you don't get control of this sector from a management standpoint and soon, we're all doomed. I think we're already getting a glimpse of that with the modern fishery.

Yes, I'm saying take your precious and limited resources such as the EM budget and apply that to real data that exists out there instead of wasting it on things we already know. Why focus your camera on a lion taking a nap at the zoo when you can have him out in the bush?

I understand and realize it's a daunting task, but you need to start. This should be your first priority and leave the longline fleet alone for now.

We are currently managed, a fleet of 75 active vessels versus a fleet of literally millions of other boats. We're resting on your laurels. Get to work on the real threat to our sustainable fish populations.

MR. BROOKS: Thanks, Glen. I'm going to need to ask you to wrap up if you are not yet done.

MR. HOPKINS: You're focusing on dinosaurs when you need to be looking at the modern man with nukes in hand. You're way, way behind the curve. Don't keep your head in the sand.

With respect to HMS fisheries management, the longline fleet is no longer relevant. And in its current force, HMS is no longer relevant, irrelevant again.

MR. BROOKS: Glen, I need you to wrap up for time. We've got to be able to close out this meeting here so we can get ready for the next meeting starting at 6:00.

MR. HOPKINS: Thank you.
MR. BROOKS: Okay. Thank you very much.
Thanks to all the public commenters. We
appreciate it.
I'm going to be super fast in wrapping up. Just to remind everyone that tomorrow we'll be back for a shorter day. We will start at 9:00 and adjourn by 12:15. So we look forward to seeing you all then.

Just then to remind everyone from 6:00 to 7:00 in this room, so in 17 minutes from now, we will reconvene in a more informal Q\&A for an hour from 6:00 to 7:00 to hear additional thoughts as related to the Amendment 15. IEP members, of course, please stay in the mix as you wish.

You are not required to stay, however, but we really want to make sure we're creating that space to hear from folks and the public online who haven't been able to weigh in on this to recognize the importance of this issue.

So we will see you all back here or as many of you who wish to come back here in just under 20 minutes. Okay. Thank you all so much. I appreciate it.
(Whereupon, the above-entitled matter went off the record at 5:43 p.m. and resumed at 6:00 p.m.)

MR. BROOKS: Folks online, thank you for being here. I'm going to hand it off to Randy Blankenship just to tell us what this next hour is for. Again, for folks who are standing up and talking, I'd invite you either to come sit at the table or step outside so we all can be hearing this conversation. Thanks. Randy?

MR. BLANKENSHIP: All right, good afternoon again, everybody here in the room and online. This is a little bit of a different session than what we usually have at our AP meetings, being an informal Q\&A specific on the topic of Amendment 15. This discussion is somewhat loosely modeled after some of the informal discussions that the Gulf of Mexico Fishery Management Council and the South Atlantic Council, maybe even some other councils, have had with the head of respective science centers and regional administrators just to chat about issues.

Sometimes they have a focused informal chat, and thats reall'y what this is intended to be. Shout out to the Caribbean Council, because I think they've done them, too. The goal of this is to provide
an opportunity for that Q\&A and a discussion to take place in order to help folks understand as much as possible what is in Amendment 15 and the ins and outs of it. We've already been discussing it for a while, but this is also intended to provide an opportunity for members of the public to be able to similarly engage in that Q\&A. It will be open to not just AP members, but to members of the public, as well, to have this Q\&A opportunity.

With that, Bennett is going to have a strategy $I$ think that he's going to explain maybe, I'm not sure, about how to try toC

MR. BROOKS: Sure. I'm going make it up now and you gave me just enough time to eat this cheese peanut butter cracker, which does not get chewed up quickly. So thank you for that. Yeah, we've got just under an hour here, and as Randy just said this is really more of an opportunity for a Q\&A and making sure people are understanding what's been put on the table here. I do want to emphasize what I said at the beginning of the A15 conversation when we were in the meeting, which is just the start of a long process.

There will be hearings and webinars over the summer, a public comment period through September 15th, discussion at the September AP, so just please keep that in mind. We seem to be mostly AP members around the table, with the addition of former AP members. That was a toss to you, Marty. Then on the line we have five or six folks, best $I$ can tell. I'm going to refresh that, and it seems like that at least includesCyeah, so we've got five member online.

Again, I want to use this time initially to really invite in folks who haven=t been part of this conversation, who are not part of the AP, and then just open it more broadly. That's my game plan. It's not too fancy. We'll again, take this >till 7:00. I know Randy and the team are not planning on doing a presentation, so really just want to open the floor up. Again, I'll start it with the five people I have online and the non-AP members who are in the room right now. I just invite any of you to raise a hand. For you in the room just yeah, Peter?

MR. CHAIBONGSAI: I have a question.
MR. BROOKS: Yeah.

MR. CHAIBONGSAI: So I remember or you just said that there=s going to be webinars and discussions. Will those be made public? Will those be sent out to the HMS newsletter, as well, when those are coming up?

MR. BROOKS: As in publicized?
MR. CHAIBONGSAI: Yeah, that's what I meant to say. Will it be publicized well ahead of time?

MR. DURKEE: Yeah. It's in the listserv, I believe, that was sent out. It's definitely in the proposed rule that came out. But most importantly, check out the websites, HMS.

MR. CHAIBONGSAI: I understand it's already there, but what I'm saying is will it be sent out again yes, please, because that way it'll be fresh in my inbox and then therefore we can then send it out to our constituents, as well. I think that will be very, very helpful for us to see personally I would think at least a two to three-week heads-up before a webinar or an in-person meeting. Those will be incredibly helpful for this kind of open dialogue and discussion, so thank you.

MR. DURKEE: Yeah, let us consider how to do that. One email strategy we have is not to overload inboxes and get people to unsubscribe. But it's important to make sure the information is out there, so maybe we can find a way of getting the information out to key people to make sure we get that out, but we'll talk about it.

MR. BLANKENSHIP: Right, and just to kind of build off of what Steve was saying is that we have not only public hearings and public meetings on Amendment 15 this summer, but several other actions. If we sent out HMS news email in advance of each one of those, $y^{\prime}$ all will be getting those coming through like, every day. So we'll figure out something that we can do to try to help you out with that.

MR. CHAIBONGSAI: So just for example, what we do with our constituents on our listserv or our newsletter, they can opt in to certain specific subject matters. I don't know the capacity of what you guys have at NOAA, but maybe you can have a selection of anything of interest of A15, select here. Then you'll get all of those. Like I said, I don't know the
capability, but that would be one option. I know that we do that.

MR. BROOKS: All right, so again, informal conversation. Unlike public comment, this is a dialogue back and forth, so if you have questions for the HMS staff, that's the whole point of this is to have a little bit of a back and forth. David, is it a process piece? Because if it's not, I want to open it up to the non-AP members first?

MR. STATEN: Oh, by all means.
MR. BROOKS: Actually I'm going to ask him not to because $I$ do want to give the folks who have not been part of this conversation a chance, and then I will go direct to David. Online folks, anybody have a question or a comment, something that you want to better understand about A15? Raise a virtual hand. David, I'm going to let you fill this awkward silence.

MR. STATEN: All right then. I just want to address the issue of the data in connection with bluefin catches off the North Carolina coast that was brought up earlier this afternoon. In my view, this is a really easy exercise. This is something that can
easily be fixed using the database. I have to assume it was an oversight or something, because the data that we have suggests that what the North Carolina fishermen are saying is the case is that it doesn't meet with the statement that was made on that PowerPoint presentation.

There are only certain times of year when these fish are available. That's an easy fix, but it begs the question what other fixes are needed in the data? This is a very complex model, I've noticed. I think we need to acknowledge the fact that conversations about modeling and models is not something we normally engage in here at the HMS AP or at the ICCAT Advisory Committee. There is a protocol for doing this.

It begins with the assumption that there's nobody in the room that knows what a model is unless you define a model as many pieces of plastic which you put together with glue. That's the first step, to understand what a model is, and that was emphasized very much so with regard to the bluefin MSE, which has 96 operating models.

This is a challenge in my view. When we get to public comment, this is going to be a huge possible stumbling block to have any conversation regarding modeling without first establishing a baseline on what that means in real terms. Thank you. MR. DURKEE: I'll just respond to that, Bennett. Yeah, communicating the model complexity is really hard. We've got some new outreach tools trying for it, but any suggestions you have, we're definitely all ears. I would also refer back to Karyl's earlier comment also though, that HMS PRiSM is a scientifically accepted tool. We definitely want to explain it and make sure people understand how we're using it, but the public comments we're trying to get really are on the proposed action.

MR. STATEN: Following on that, just to point out one thing, I think when we're talking about this model, I know you spent a lot of time today trying to explain how the model functions. I'm talking about one step before that. What is a model? What is a model intended to do? There are different kinds of models.

I did mention to Karyl earlier, and I can do this for you, if you want, there is scientific peer-reviewed literature on stakeholder engagement for management strategy evaluation which addresses this specific issue and talks about how to talk to stakeholders about models. I offered to send Karyl a couple of links to these papers which might prove to be useful. We've been through this drill already with MSE, very recently, and so we have a very fresh, clear memory of how difficult it is to discuss modeling. Thanks.

MR. DURKEE: Yeah, no, I appreciate that. Yeah, please send those over and we'll take a look. Just to address your first comment, I want to be very clear that the January through December EM data review area where bluefin tuna catch is likely, it is not an error and it doesn't mean that what you're seeing on the water is incorrect and that we think that we have better data available.

These are designed around trying to match the Southeast Fishery Science Center sampling plan that exists right now. When we do that, we're able to
actually operationalize that Southeast Fishery Science Center sampling plan and maintain a timeline of data and use that program. That way, even though there's a lot of changes with this action, we're not changing the monitoring of bluefin tuna IDQ reporting and compliance.

That may be where the disconnect is, is what the goal of these areas are to match that sampling plan. It does not mean that when we say January through December bluefin tuna catches likely, it doesn't mean that what you're saying is incorrect or we're disagreeing. It's just different end goals, 1 think, or beginning goals.

MR. STATEN: That begs a question, actually. We're talking about two different the reporting protocols for longline is clearly understood, it's easily available. The Southeast Science Center uses two protocols, actually. One is the large pelagic survey and the other one is the direct reporting from the pelagic longline fishery. It seems to me highly unlikely that you would find data for some of these months during the year from the
pelagic longline fishery. Thanks.
MR. DURKEE: So no, they're not using LPS. They're using strictly information from sets in the pelagic longline fishery. Taking a step back then, right now EM is required everywhere. If you want to limit where it's required, we've got to base it on something that doesn't jeopardize those management goals, and there's something that we can hang our hat on that is pretty solid.

We can discuss tweaks here and there on where these things are, but if we want to implement something that is continuous with the Southeast Fishery Science Center sampling plan, it looks similar to this. I think it's helpful to start from where we are now, which is everywhere, versus where we could be in some limited areas.

Let's have some discussion on how we can adjust this on the margins, change a date here, maybe this line a little bit. But we're trying to find some solutions to that $100 \% \mathrm{EM}$ requirement.

MR. BROOKS: Thanks. It looks like Jason Bahr, I see your hand raised so why don't you come on
into the conversation? Just so everyone knows who you are, maybe you could start with just your name and affiliation? Thanks.

MR. BAHR: I'm a wholesale buyer for pelagic longline and I'm the vice-president of Bluewater, as well. I was looking at a couple of the I guess a few questions I had is we'll stick right here while we're at it. How many actual sets are outside of these areas? I guess we're trying to do cross-mitigation here, but I'm looking at these areas and their time and I can't really imagine there's too many people setting outside of these.

It seems like these areas are the reason why we don't need them is because no one's fishing at these times and places. I would imagine it might be some in the summer in the Charleston bump, but if you're going to probably close the closed areas of the Charleston bump in the summer to outside of that area, you're probably going to limit how many people, the areas that are productive.

So I don't see how that would be much of a I just wondered how many sets there actually were.

That's my first question, $I$ have two more after that if you want to answer that or you want me to just get them all out at once.

MR. DURKEE: Yeah, let me answer that since I have it available, if that's all right. No, point taken. Where bluefin tuna and where catch is likely probably has a pretty good overlap with target catch, as well, so point taken. If we break it down just based on historical sets, obviously in that blue box, Mid-Atlantic bite, there's no savings there. That's $100 \%$ of the sets.

In the North Atlantic, that large yellow one, it's the same case. Where the bluefin tuna's likely is where that target catch are, and there aren't any historical sets that are occurring outside of those EM data review areas times. It's different, though, in the South Atlantic and Gulf of Mexico. In the Gulf of Mexico, about $57 \%$ of historical sets occur outside that time and in the South Atlantic, $31 \%$ of sets occur outside that time historically. Oh yeah, and the table would be in the DEIS, Table 5.124 and Page 5181, if that's helpful. But again yeah, Table 5.124.

MR. BAHR: Okay, so it won't be much for $I$ guess the area that $I$ mostly deal with in the Mid-Atlantic and Northeast, which is kind of what I figured. So my next question is when it comes down to the three, just eliminating the cameras completely, I know you said that the comments $I$ think Brad was saying that the comments were pretty overwhelming that people wanted some sort of monitoring if we're going to do an IBQ system.

But $I$ thought in NOAA fisheries, we did 100\% observer coverage for the first few years after that, and $I$ thought that the data was pretty conclusive that because obviously you don't have 100\% observers, so those people that were doing steps without observers and with observers, and it was pretty conclusive that people who had the observers and the counters and everything else were pretty similar to people that different. There was no real in the data.

> I don't know exactly how that can play out, but it just seems like if the cost is so
overwhelming, in the end there's still only so much you can do. You can only land what you can land. So I didn't know if that was a real option or if that was just thrown in there? And then my last question would be with collecting the three these fees that we're going to basically exceed $19 \%$ because looking at the mitigation, I don't see mitigation coming down all that much.

I was trying to figure out what exactly was the workaround? Congress kind of mandated only 3\% fees that can be collected. How are we getting around that and going all the way up to $19 \%$ ? Thank you.

MR. DURKEE: Brad, you want to jump in on that second question first?

MR. MCHALE: Hey Jason, Brad here. I'm not quite sure $I$ heard your first question, but let me take a swing in the dark and see if $I$ hit something. With Amendment 7, when we implemented the IBQ program, knowing that there was a catch share program built off of the incidental interactions with bluefin, the existing fishery dependent data avenues, VMS reports, logbooks, and then the observer coverage superimposed
on the fleet anywhere $8 \%$, $10 \%$, depending any given year, that it's not only about the landings.

So the intention of the IBQ was to convert regulatory discards and other discards into landings, is that there would be no bluefin tuna coming back to the dock because the value of weighing the fish against your IBQ allocation, which then compromised the vessel's opportunity to pursue the directed species was so high, that that was the incentive to misreport unless there was some other validation system component to it.

That's all in the administrative record for Amendment 7, so that's where it is. Does that mean that has to continue in perpetuity? No. I think that's kind of on the board here as part of our proposed action to kick these alternatives around, but I suspect that concern is still going to be the same now as it was seven, eight years ago when we were going through the proposed rule for Amendment 7.

On the secondary question regarding the aspects of the Magnuson Stevens authorizations on feed collection, there's a couple different components to
it. There are the provisions within the act regarding limited access privilege programs, i.e. catch shares, and that's obviously where that $3 \%$ is derived from. Nothing in Magnuson speaks to electronic monitoring. There's no citation in Magnuson to date whatsoever regarding that.

There are regarding, as Randy had mentioned when we were back in plenary, 03B, that does provide the agency the authorities to collect reports and do monitoring. That doesn't necessarily mean they're consistently overlapping. They're actually two independent components of the act itself, and so to conflate that the $3 \%$ has to apply to EM I think might be a misnomer.

MR. DURKEE: Yeah, and just to build on that, too, I'm not an attorney, but our general counsel has advised us that that MSA 3\% is very specific to the administrative costs of that program, administering that lab program. Very explicitly in the cost allocation policy, we're not transferring administrative costs. Those are staying with the agency. That doesn't have any effect on the sampling
costs.
It's just the administrative costs, which NOAA fisheries intends to continue paying for under this proposal. That's kind of the advice that we're getting. I don't know if we should belabor it too much unless we want to bring in general counsel.

MR. BROOKS: Dewey, you wanted to jump in on this?

MR. HEMILRIGHT: Yeah, you might already had asked the question, but back to your blue box and trying to get an understanding of the longitude and latitude of that blue box, and if in that blue box you're saying that it's a Southeast Fishery Science Center process or something, and is that different than you're saying hypothetically that in that area you've got to have a vessel monitoring system and your camera on, and every set you make theoretically, possibility that you've got to pay $\$ 280.00$ for when do I got to pay money in that area when about five to six months there is no bluefin in the area from 35 to 37 , and I only going on the area that $I$ know my knowledge from.

I'm not going on the furthering of it, that that area there's no bluefins there, that the data will show that, more than likely I believe. So I'm trying to find out, tell me what I'm missing, which I know I'm probably missing something. Please explain it to me.

MR. DURKEE: Yeah, no, I don't think you're missing anything. I see that you're absolutely right and I see what you're saying. I think maybe instead of maybe a different way of thinking about it is instead of me defending what our proposed map here looks like, maybe a different way of looking at it is right now EM is required everywhere. One option we have is to continue to require EM everywhere.

If we think that's not necessary, then how do we limit the areas and times where EM is required? Maybe if you have some ideas on other ways to do it, we could look into that. But the Southeast Fishery Science Center to advise their own sampling plan went through a fairly lengthy and in-depth white paper to figure out where it's possible bluefin tuna would be caught. That's where they wanted to actually have
eligible for collecting sets.
So it's hard for me sitting where I'm sitting to argue with what the Southeast Fishery Science Center has determined is appropriate for sampling. Maybe that's a different way of going about the discussion.

MR. HEMILRIGHT: Well, I don't think that have a disconnect here, but you didn't say the Southeast Fishery Science Center said that they had data from sets that were in there. You said something else. Maybe the Fishery Science Center is using maybe a PRiSM model to suggest that there's probably bluefin tunas in that area.

What I'm saying is based on our known data of fishing in that area from about August to December from about 35 degrees to 37 , which is the knowledge I have, there is no bluefin tuna. We don't interact or catch them because they're gone out of there. I'm trying to figure out that disconnect, what the Southeast Science Center is saying and whether the Southeast Science Center doesn't have vessel monitoring systems that $y^{\prime}$ all have the data for, that
you use for IBQ.
I'm trying to reconcile where it is and I understand that you're going to have to pay money for this monitoring if it goes, but I'm trying to figure out how not to be sucked into being broke at $\$ 280$ a set when there's no bluefin tunas there and our data shows that.

MR. BROOKS: So I guess the question I would ask and then I'll hand it off to Randy, I'm just trying to understand over the next several months, are you interested in feedback that could reshape boxes, reshape time, et cetera? Because I think that's what I'm hearing from Dewey, and if that's the case then I think thinking about how to pull that together, what does that conversation look like, might be helpful.

MR. HEMILRIGHT: All right, so go look at 35 degrees to 37 degrees from August to December, and go find the analysis. Please don't let, if it's one bluefin, say that there's one bluefin there, but go look at that analysis to see generally overall how many bluefins are caught there between that time period that's done by the pelagic longline industry.

I'm not picking on just that area, but that's the area I know and have faith in of that. Maybe go look at that analysis that it can cut down a box that could save us some money for that. Thank you.

MS. BREWSTER-GEISZ: Thanks, Dewey. And you had also asked about paying $\$ 280$ when you were in that area. I just want to clarify it would be, I'm sorry for the echo, it's still 10\%. The EM vendor would be looking at $10 \%$ of your sets, and it comes down to the cost structure between you and the EM vendor. You might be paying the EM vendor for the entire year or you might be paying the EM vendor for each set that they review.

We don't know that at this point. I would be very interested in hearing from potential EM vendors on what their cost structure is and what they're more likely to offer to help answer those questions, but I don't have that. We will go back to the science center and look at those numbers and figure out about these areas. But I also want to make sure that while we're committing to do that, we may not be releasing that information during the comment
period. So when you see this again at the public hearings, don't think that we're not looking into it, please.

MR. HEMILRIGHT: Okay, I've been involved in this a long time, so $y^{\prime}$ all don't surprise me with hiding stuff, caveats in the safe report that doesn't that you don't see. So I understand the different factors there. But what I'm trying to do is work from the bottom of the issue of bluefin tuna and work my way up.

It's kind of like inside of an engine when it's broke. You don't start out there worrying about the paint on the top, you worry about what's happening in the middle down there. So that's where I'm working at for $y^{\prime}$ all, because $I$ know it's going to take you a year or two to go get this analysis from the science center or something like that, the simple request.

But I'm just trying to work that way to figure out and look at how much is it going to cost us? How much is it going to cost the pelagic longline fleet under different reality scenarios? That's why I'm asking the way I'm asking it.

MR. BROOKS: Marcos?
MR. HANKE: It's to the point of Dewey, do you allow me to go very quick? Because it's a question that maybe going to help out Dewey and all of us. Number one, the arguments and the argumentation and the points that mix two or three things will not take us a long way because we're going to start to mix things and start to not be objective and effective on the recommendation for each particular value point that you're bringing, Dewey.

One thing, the question now, Dewey is talking about the economics, right, to go to that blue box. But scientifically, Dewey, this is what I believe. If the science center wants to monitor the area, the coast, the zeros aren't as important as the ones and the twos and the threes of the present or not present, especially on a scenario of climate change that there will be a shift on baits and movement of the stocks alongside to the coast.

I get what you're explaining, which is the reality now, but I see scientifically good reason even though the bluefin are not there, to monitor and to
collect the zero number of the presence on the blue box over time. This is just a point that I want to bring to the table for you guys to consider. I understand the economics, and I'm not mixing the economics. I'm just talking about the methodology and the numbers implication on this.

The other recommendation is going to do, the science center, whoever is in charge and have a good grip on the methodology, what it was aiming for, have to be here the next time we discuss this. Thank you. I'm sorry. Thank you for the opportunity to speak now.

MR. SCANLON: Okay, what I really want to touch base is I think we need to back up to what spatial management, the initiative for spatial management, how it occurred and how did this even get off the ground. Nothing to do with and you even say that it's got nothing to do with the promise that we're going to get access to this bottom at all, at the end of the day after three years.

So there's nothing assured to the pelagic longline industry that this is going to happen and
we're going to get access to this bottom. There's minimal access under the program as it's set up, 67 sets in the Charleston bump. That's enough basically sets for one vessel to fish there for the winter.

If you're going to commit to fishing in an area and you're going to move your operation there and set up with a dock, set up with a facility and get all the things it's going to take you to operate out of that facility profitably, you can't commit on going in there and setting up for a week. You're not going to make any money doing that.

So that in itself tells me that it's not set up to give the longline industry access to that area. To me, spatial management was set up so that you guys could study the effects of climate change on the HMS fishery. That's the initiative of spatial management, is it not? Doesn't that supposed to be, in effect, the study, part of climate change and its effect on the HMS fishery? Wasn't that what spatial management was initially begun for? Wasn't that one of the elements of it?

MR. DURKEE: Yeah, I can respond to that. I
think climate change is definitely something that is an important consideration with a static closed area, but no, that is not the impetus for it. The impetus for it is we have a management measure that's been in place for 20 years. Is it effective or not?

The answer is we don't know and we need to get data. So it was a data collection exercise. So yeah, climate change is in there and it's important, but it's not the sole impetus for it.

MR. SCANLON: But still, with that being said, it's still an important element of spatial management, is it not? And that being said, and since there's no guarantee that the longline industry is getting anything out of this at the end of the day at all, you're trying to you guys have been stuck with this burden of trying to figure out who's going to pay for the EM units all this time. EDF put up the money initially, from what $I$ understand, to fund it in the first place through A7.

Now that that money has run out, now the government's got the burden of it and now they're trying to pass that on. Here you are with an empty
promise to us, and basically you're looking to do this research, which you should be doing I' m not saying you shouldn't be doing this but you're trying to pass the burden of doing this research onto an industry that can ill afford it. We're contracted before the pandemic we were contracted at $10 \%$ a year. We were losing $10 \%$ of our vessels a year.

We stabilized there a little bit just prior to the pandemic, and now the numbers we just got out from the IBQ allocation is without the 70 vessels got allocation last year, from 135 vessels. Here we are, we're going to drop this $20 \%$ increase on our net profits on this industry where everybody in this room knows not one of us can stand here and say I can take a $20 \%$ pay cut and I'm going to survive this year.

There's not a chance in hell any of us can do that. The government is sitting on I talked to Kelly Denit at my annual meeting this year, and there's $\$ 340$ million or $\$ 430$ million, I forget which one it is, $\$ 340$ million at the very least, that they're sitting on to address climate initiatives. If this isn't a climate initiative and qualify for that,
what is?
How isn't the money coming out of the Tank Reduction Act if there's $\$ 340$ million sitting there. Why are we asking anybody else for this money? It's sitting there. You're looking for a way to spend it. This is an initiative to spend it on that's going to benefit everybody in this room. Every category in this room is going to benefit from this research.

So why is it being dumped on the pelagic longline industry like we're just, oh let them pay for it, when we all know sitting at the table there's not a chance in hell that this fleet can afford it. We'll be out of business. We're virtually hanging on by a shoestring right now. And to even propose this to us is absolutely insulting.

That being said, the other thing is we're talking about 20 years ago. What I'd like to do, and I've yet to see it from any of you, is what is why don't we see the amendment that closed these areas and what it said and what all of that information was that created the closures in the first place? That's the
baseline that we need to be looking at and move from there.

We're studying this, but what are we studying it against? We don't even know because we haven't gone back to the beginning of when it was closed in the first place. You've got to go back to square one, see where you were at and see where we're at today. I'm going to tell you right now, it doesn't take all of this to give us access to that bottom.

If you wanted to go by plain and simple basic science, you take the amount of vessels that were in operation under what you consider a definition of activity today. Go back 20 years ago and see how many boats were there, see what the intent of the regulation was, how many boats you needed to eliminate from the industry to accomplish your conservation goals back then, and look at where we are today.

When you've got 70 vessels, down from 430-something vessels, every one of your conservation goals would have been attained by just the reduction in the size of this fleet. Every one of these vessels should be allowed to be in that area and you should be
going about your business like you are already, using the means that we have at our disposal between the observer coverage, whatever EM, whatever tape you want to use anyway, and studying it.

Why are we reinventing the wheel here? And it just takes the guts of the administration, it takes the guts of the people in this room here to stand up to what the political wind is. We've got to stop regulating this industry by the political science of today and start regulating it by the science of today.

Because we all just learned, if we didn't learn nothing else through COVID-19, it's how just this government works with the political science. When Fauci stood up in front of us and told us that they were going by the best available science, I said to my wife oh my God. She said what's wrong? I said I hear that all the time at the meetings.

MR. BROOKS: Hey Marty, let's
MR. SCANLON: But it's the truth.
MR. BROOKS: I know, but let's stick to fishing here.

MR. SCANLON: But we need to address,
that's the elephant in the room. Unless somebody stands up here and stands up for what's right, not what's politically correct, nothing's going to get done here and every one of these fisheries is going to fail as a result of it.

We'll be the first ones to go and everybody else sitting at this table will be falling like dominoes unless somebody stands up here and puts an end to this and goes by the science. It starts by looking at the data on why these areas were closed in the first place. That's the base that we need to go by.

Where are we going? We don't even know because we don't know where we started, right?

MR. BLANKENSHIP: Yes, I would like to respond to a couple things. Marty, thank you very much for all of the thank you very much for all the thoughts. I'm glad that you were able to make the trip up here and certainly to engage here. Couple things as you were talking, you made a point, I believe, about EDF providing funds initially to pay for EM in Amendment 7. EDF did not pay for any funds. That all
was coming from funds
(Simultaneous speaking.)
MR. BLANKENSHIP: The federal government paid for that. That was not paid by EDF. And then you referenced $\$ 340$ million to address climate initiatives. It is a valid point that there is a lot of money going towards climate initiatives. However, you were linking this Amendment 15 as being a climate initiative in and of itself, and that is not the case.

It is the case that one of the purposes for looking at collecting data from within the closed areas is in order to be able to assess whether or not the original objectives of the closed areas are being accomplished or not, and having that data would allow for that comparison.

In that sense, it is changes within the environment such as changes that occur related to climate change and other factors, like changes in stock status or changes in fishing practices, decreasing in size of the fleet, those kinds of things that are factors that could influence the difference in the way that catch would happen within those closed
areas, which is why we need the data from within them.
So it's being able to better adapt to the changes that have occurred and will continue to occur. Climate is one of them. Amendment 15 is not a climate initiative in and of itself. I'm trying to just kind of

MR. SCANLON: It's strongly linked to it, is it not?

MR. BLANKENSHIP: There is a factor there that climate change can change the environment under which a static closure is put in place, and therefore the need is to be able to collect data so that you can determine if the boundaries of and time and place of that area is still appropriate.

MR. SCANLON: Isn't that your responsibility as an agency to collect that data and to do that research?

MR. BLANKENSHIP: I would continue to say

MR. SCANLON: Because it's not really on the industry, the industry executed sufficiently.

MR. BROOKS: I want to note I've got I want
to close out this piece of it because there's a few other people who want to get into the conversation? Do you want to jump in? If not, $I$ want to invite some other people in.

MR. MCHALE: It's a conversation --
MR. BROOKS: Let me go to David, who's been waiting, $I$ think, and then $I$ see in the back and then I've got a few people online who want to get in. I know, I saw Willy, yeah. Go ahead, David.

MR. SCHALIT: Yeah, I want to just go back to a statement that was made about 10 minutes ago. If I have that correct, what $I$ heard was that the area that $I$ guess we'll call it, not the Desoto Canyon, the Gulf of Mexico, that area is indicated for sampling from January through June? Did I get that right? I'm trying to read it? And then, but did you say that approximately $50 \%$ of the catches of bluefin tuna in the Gulf of Mexico occur outside of that period?

MR. DURKEE: There's a lot of conflating issues in here, and this is one of the complexities of this action. So I'm going to take it a little bit in reverse of the order of questions. Yes, specifically
for these EM requirements, $57 \%$ of the sets are occurring in times that under this proposal would not require EM, so in other words, July through December, so yes.

Separate from that, though, we really need to keep there is some overlap. We need to keep the EM cost allocation and the spatial management separate so that these data collection exercises, whereas in some areas, the monitoring areas, there is an EM component, a small EM component with that. I think it helps conceptually, especially this early stage, to think of them separately and not conflate them.

So right now we're in the pelagic longline EM cost allocation portion of that presentation, the DIS. That goes back to the spatial management portion, and $I$ do think it's helpful to think about them separately to help us, myself as well, because you start getting into these areas and there's maps and there's overlap. But for that specifically, the sampling happens and the data collection happens more in the spatial management portion, which is this parallelogram, if that is getting more towards your
question.
MR. SCHALIT: Yeah, actually I think I might be getting it now. Essentially if I could just repeat it back to you, the SEFSC have said that they want samples for six months in the Gulf of Mexico, notwithstanding when the catch is. That's what they want to do. That's what they determined was the need, that the sampling is needed for that period of time. Is that correct?

MR. DURKEE: No, not exactly. We're at spatial management portion here, now we're going to flip back to the EM cost allocation portion. So even just visually it might help if we just actually go back to that map. So we're out of data collection and now we're back strictly to how do we minimize costs on EM when we transfer to the industry, and how do we operationalize the current sampling plan?

When I say operationalize, what I mean is the Southeast Fishery Science Center is selecting what sets our current vendor should actually sit down and have somebody review for bluefin tuna catch. The science center selects those. They have an internal
sampling process, and one of those processes is initially to not consider sets that occur in certain areas that they've determined are unlikely to see a bluefin tuna.

They don't want to waste resources on that. So yes, a little bit, they aren't as interested in sets that occur in the Gulf of Mexico from July through December, and they are perhaps more interested in sets that occur January through June, but it is not part of the larger research plan or sampling plan that the science center is trying to collect data. It's really two separate components, if that's helpful.

MR. SCHALIT: I guess the question that's arising here is at first blush you think well, why does the SEFSC need sampling from January through December in that area off of Hatteras Point? That leads one to think that maybe they're thinking that there are fish there that entire time, which obviously isn't the case. But no, I get it, it's part of the survey design.

Maybe the question for them would be to take a second look at that and see if they feel that
that's absolutely necessary. I think that's a simple question. Thanks.

MR. BROOKS: Thanks, David. I want to go to a couple of non-AP members online. Then we'll go to Willy and the folks online from AP. Alana, why don't you jump on in and then we'll go back to Jason?

ALANA LNU: First off, why can't everything be equal there on that map with the monitoring? It's all about, I think Magnuson says fair and equitable distribution, which I think should apply to everything, even monitoring. But more so than that, I'm curious why so right now the agency is paying for monitoring. What is the money going to be used for instead? Are we going to do something to use that money to benefit the commercial industry now that we're absorbing these costs?

MR. DURKEE: No, that's not money that's earmarked for pelagic longline fishery. What it comes down to is a combination of a directive, an internal policy that says we need to transfer these costs, as well as some NOAA budget conditions. I don't know that thinking about this cost savings is, is it going
somewhere else? It's just not earmarked for pelagic longline fishery, per se.

Oh, and the fair and equitable, so yeah, if you have ideas on how to rearrange these boxes in time and space to a) support bluefin tuna reporting compliance, and b) to be more fair and equitable than what is here, yeah, we're definitely interested in those thoughts.

ALANA LNU: So why don't you just monitor everybody all year long, and then you can do that for a year or two and then you can reevaluate and you can see exactly where you're getting interactions, and then zero it down from there?

MR. DURKEE: Yeah, that's definitely an option. Sorry.

ALANA LNU: be able to reopen that door and reevaluate further down the road. But there has to be some way to find a middle ground and make it fair, because right now it's not very fair for January to December, the little blue box.

MR. BROOKS: Thanks. Jason, why don't you come on in?

MR. BAHR: I'll stick with this point. So it's 57\% down in the Gulf and $31 \%$ in the Southeast now. The benefits would just go to those vessels, right? It doesn't get transferred throughout the fleet, so the people in the Northeast and the Mid-Atlantic, they'll be paying full freight the whole year and the only benefits will go to the people down south? Am I understanding that correct?

MR. DURKEE: That estimate was based on sets, not on vessels, but I think the premise of your comment, though, yeah, I suppose I'd agree with that. And Randy has a good point also. Vessels are moving around, so to the extent that this is a pretty highly mobile fleet, things that happen in the South Atlantic might not be limited just to vessels that are home ported there.

MR. BAHR: Maybe, but I think
MR. SCANLON: Well, we've got very little access to the Gulf. The Atlantic ports got very little access to the Gulf.

MR. BROOKS: Go ahead, Jason.
MR. BAHR: Again, most people that fish the

South Atlantic, some do go up north, but the south pretty much stays in the south. Not all, so the benefits strictly go almost to the Gulf of Mexico exclusively. My next question is when it says that the negotiations are supposed to be between, they're supposed to come through a payment agreement or some kind of agreement with the monitoring group and the vessels.

What happens if they can't come to some sort of cost agreement? I don't know where that goes. What happens if the folks just don't want to pay or the guys just say hey, I need a lot more than that? Who's going to monitor the negotiations and what if they fall apart?

MR. DURKEE: Based on what we've seen in other regions, we expect there to be multiple vendors entering the market. Even in the groundfish fishery and the Northeast, there's nine vendors available. So there being just a single one or two vendors is unlikely, so we're expecting there to be multiple vendors available. If negotiations fall through with one, there's other ones available.

If what you're proposing is that NMFS gets more involved in these contract negotiations, definitely interested in comments on that. I would say that the direction we've tried to take is a hands-off approach to allow some more flexibility with those contract negotiations. But if there are some parameters you're interested in, we're definitely interested in your thoughts.

MR. BAHR: I just wonder, say if a boat just says I can't afford it, what happens then?

MR. MCHALE: Yeah, so I think some of the terminology I think Steve just finally hit it on the head. It's actually a contract negotiation, so these aren't open negotiations that would be taking place throughout the year. At least, that's not how it's deployed in fisheries on the West Coast or in New England. It's the contract negotiation, and just like any other kind of contracting model that once the vendor, or once the two parties come to terms, it's a binding contract that both parties are entering into for the duration of the contract.

I think that's really where the
negotiation part is. It's not open-ended. It's getting that business contract in place and clarity in what the obligations are on both the vendor and then, in turn, the vessel, with the parameters that the agency would set out for certification of those vendors.

MR. SCANLON: Hey, I have a concern that hasn't been brought up yet that's a basic concern when I get a chance.

MR. BROOKS: Sure, let me just we've got about 10 minutes left. Did you have another comment, Jason? He's dropped off. Okay, let's go to Willy. Okay, Marty?

MR. SCANLON: Well, one of the concerns we have right now as a fleet is you're looking to pass the cost of these units onto these vessels. We're very familiar with how these units have to be maintained. These units have been on these boats now for eight years. Now you're going to pass over all this old hardware onto the fleet. Are we going to be responsible to replace all these units now that they're eight years old?

I know they've been maintained throughout
this time period, but just like we have with the VMS units now, they're constantly going out. The cost of these things, I believe, was something like $\$ 15,000$ for a boat that wasn't eligible to put a machine on the boat. That's another cost that we're looking at here, that as these units become old and antiquated, who's going to bear the cost of replacing them?

MR. DURKEE: Yeah, you are correct. Continue to use the equipment that's on there, but replacement, repair cost, that falls on the vessel owner.

MR. BROOKS: Willy? And then over to Jimmy?
MR. GOLDSMITH: Yeah, thanks, I just had a quick process question that $I$ meant to ask earlier and I neglected to. Steve, if you go to Slide 50, I think it is, with the alternatives, the EF alternatives. Yeah, so this NOAA Action F1, I know at the council sometimes, the council will advance an option that's then maybe not accepted at the Secretary of Commerce level. My assumption is that with amendments that go through HMS, these are already considered options that would be palatable at the higher-up level.

So my question is basically how does F1 square with that 2019 cost allocation directive? If there is a decision to do no action, is that a palatable path forward here? How would that work or not work with that allocation directive, if that makes sense?

MR. DURKEE: Yeah, no, it does. So No Actions serve two purposes. One is it is a valid management choice in a lot of scenarios. Second, it's required under NEPA to have a no action alternative in there. So there's two purposes to that. Specifically for this, no, we don't think that that would fit with the cost allocation policy. One of the reasons is not preferred, and that does complicate adoption of that. But in other circumstances, no action alternatives are a valid management option.

MR. GOLDSMITH: So in other words, it's really just a of the options that are there, there's really only two options that are realistic. Is that a fair assessment?

MR. DURKEE: Based on our analyses and the drafting of the DEIS, we preferred one that we think
is the best forward and the one that's legally defensible and appropriate. Beyond that, all three are an option for discussing.

MR. BLANKENSHIP: I think that's accurate. I'll just say that the cost allocation policy also has a provision for if an EM program is required in some form or fashion to be put in place under a federal requirement, that the agency has, under that policy, the ability to pay for it then or to find the money to do it, I guess would be the appropriate way to say that.

So then under that scenario, alternative F1 in some form or fashion is not completely infeasible. The fact of the matter is that there's not such a requirement for this fleet right now, for this fishery.

MR. BROOKS: Jimmy, why don't you come in and then we'll go to Alan and Christine, and then we'll probably close up here for the day.

MR. HULL: Thank you. So you have a directive to transfer the cost of EM to the industry, and you've been hearing all day that the pelagic
longline industry, the food producers, are telling you that this potentially could totally eliminate them.

The question is, when the fleet is totally gone and you still need to collect this data, who is the agency that Southeast Fishery Science Center, who are they going to hire or pay to collect this data that they're looking for when the industry is gone? Because then they're going to be paying a whole lot more, it seems to me.

So it seems like it's counterproductive to destroy the industry that you're relying on to collect the data, and when they're gone you're going to be paying a whole lot more to collect the data that you're required to collect. That's just a quick little thought in my mind.

MR. BROOKS: I'll take that as a rhetorical question. Thank you. Let's go to Alan Weiss and then Christine.

MR. WEISS: Thanks, Bennett. I know it's been brought up a few times and it's come up in the discussion again now that there's likely to be a number of vendors who will be interested in actively
competing for this business and that that's going to drive the cost down. Your whole universe in this market today is, as you said, is 82 active vessels. Of those 82 , there are some number that have had minimal participation, so those with minimal participation and those that are hanging on and marginally profitable right now are going to fall by the wayside pretty much immediately or shortly thereafter once this is implemented. So that universe of potential customers is going to shrink.

I don't think you can necessarily equate the response you're going to see from the vendor side for that small a group as you see in New England groundfish. Another thing I just wanted to touch back on one more time, and you may think I'm belaboring it already, but I won't continue to belabor it after this.

In the discussion about the authorization for the collection of these fees, it's been mentioned a few times that Magnuson provides for the collection of administrative costs, but not for other costs. I just wanted to read to you the exact text of what it
says in Section 304(d)(2) in the Magnuson Act, and it's brief.

The Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management, data collection and enforcement of any limited access privilege program. Such fees shall not exceed $3 \%$ of the $X$ vessel value of fish harvested under such program.

What has been coming from the agency's end of this discussion and what $I$ just read are not really, they don't line up. I would just like to request that you guys go back to NOAA general counsel and ask them to provide you with a better explanation that doesn't fail the red face test. Thank you.

MR. BROOKS: Thanks, Alan. Let's go to one last comment here. Christine, I think we're going to give you the last word here today.

MS. KITTLE: My question, I guess, kind of goes along with Steve's but more towards the areas that are going to be open as monitoring areas. It looked like they would need $100 \%$ monitoring and it was on the cost of the owner to do that. Does that $100 \%$
monitoring, are those sets have to be monitored by EM, and then would those be do those count towards the $10 \%$ that the industry would have to, I guess, officially get reviewed?

MR. DURKEE: Yes, so specifically for the monitoring areas, every set needs to have the camera on and then subsequently, $100 \%$ of the video needs to be reviewed, whereas right now it's just $10 \%$. There's a couple different scenarios. How that fits with the EM cost allocation is possibly a moving target.

So looking at our preferred alternative right now for EM cost allocation, what happens is that a pelagic longline vessel already has a contract with a vendor, and so they need to make sure that they're coordinating with that vendor for an expanded video review of those sets beyond the $10 \%$.

But then yes, presumably that larger bucket of set reviews counts toward that $10 \%$ goal, with the one caveat that there also needs to be one set reviewed from each vessel.

MR. BROOKS: Thanks. Christine, did that answer your question?

MS. KITTLE: Yeah, just a follow-up question. Do those fees that $I$ guess the industry would occur because of this, was that calculated when you guys did your economic study?

MR. DURKEE: Yes. The estimated cost per set that we're using in the EM cost allocation is what we're applying here. So yeah, that's the cost. Presumably that would be a lower cost, though, if this is an additional add-on to whatever EM program exists post-A15. But yeah, that is the cost estimate we're using for this portion of the monitoring area economic impact.

MR. BROOKS: Thanks. Thanks, Christine. We are a couple ticks after 7:00 and it has been a long day. I think people probably should go get some food and maybe talk about something else, or talk about this over dinner as you wish. But I think we should just thank everyone for making the time for such a focused conversation, and we will see you tomorrow at 9:00. Thank you, all. Thanks online folks for hanging in there for such a long day.
(Whereupon, the above-entitled matter went
off the record at 7:03 p.m.)

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This is to certify that the foregoing transcript

In the matter of: HIGHLY MIGRATORY SPECIES ADVISORY PANEL MEETING

Before: NOAA

Date: 05-10-23

Place: Silver Spring, MD
was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate complete record of the proceedings.

$$
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& \text {------------------ } \\
& \text { Court Reporter }
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$$

