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ATLANTIC HIGHLY MIGRATORY SPECIES

ADVISORY PANEL MEETING

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C O N T E N T S

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P R O C E E D I N G S

(8:31 a.m.)

MR. BROOKS: All right, if folks will grab their seats, we'll get going here again, thank you. Good morning everybody. If we can get the AP members to their seats at the table, that would be great, thank you.

All right, again, if we can everyone to the table, Miss Sonja. All right, last call to the table please. If folks can grab a seat.

All right, good morning everybody. Welcome back and thanks for all the good conversations yesterday. Let me just do a very quick agenda review and then we'll see what AP members we have on the phone. So, operator, if you could take people off mute, that would be helpful.

We think we will probably start with the presentation from Larry Redd on the HMS Compendium update, because Craig Brown is not here yet to give us the assessment updates. So, we'll flip that a little bit.

Following that, we'll get the assessment update on yellowfin tuna, white marlin, and shortfin mako. Then a break, and then we will turn it over to the bluefin tuna fishery update. And then, finally, we will finish up our presentations with enforcement updates from OLE, the Coast Guard, and HMS Division Staff.

Then we will turn to public comment, and we will adjourn by 12 o'clock today -- I think everyone is aware of that -- so the ICCAT meeting can move forward. And that's the game plan.

I know we've got a couple of new AP members here in the room today, so Shana is here, I saw Sonja a second ago. Where did you go, Sonja? Somewhere. Are they any other new AP members here?

MR. BLANKINSHIP: Yeah, Marcos, and Katie.

MR. BROOKS: Oh, Marcos is here too. And Katie, oh great. Good, welcome, welcome.

All right, on the phone, AP members who are on the phone, if you would introduce

yourselves so we know who we have online.

MR. HUDSON: Russy Hudson.

MR. BLANKINSHIP: Okay, Russy.

MR. CHILES: Gary Chiles, Director of Parks & Wildlife.

MR. BLANKINSHIP: Great.

MR. FOSS: Kristin Foss, Florida Fish & Wildlife.

MR. BLANKINSHIP: Great.

MR. BROOKS: Okay, I think that's it then. Any questions from AP members, either on the phone or around the table about the plan for today. Okay.

And to folks on the phone, if you could just be sure to mute when you're not talking, that'd great. Thanks very much. So, with that, I think we'll hand it off to Larry, unless, Randy, there's anything you wanted to say up front.

MR. BLANKINSHIP: I'll just quickly mention that I know that some of you -- I know, particularly, Marcos -- and I don't know all the travel issues for anybody else, but Marcos

persevered through a lot of travel issues to get here, and I'm glad that he could. There were a lot of canceled flights, probably due the hurricane and stuff like that.

And I'll also just mention, of course, we've still got those folks in the path of the hurricane in mind, especially as it approaches the coast there, and as effective Charleston, and Myrtle Beach, and Morehead City, and Hatteras, and all those areas today. So, keep them in mind.

MR. BROOKS: Larry, you're up.

MR. REDD: Well, it's early and I was not expected to go first, but I just want to start it off by saying, Hello, everybody. I'm usually the quiet person that sits back there in the corner (laughter).

My name is Larry Redd, and I'm here to give what is going to be the greatest presentation ever at the Advisory Panel (laughter).

MR. BROOKS: And, Larry, the key to doing that, usually, is to really have those low expectations right up front, so (laughter).

MR. REDD: Well, this is going to be the greatest topic because I started doing this as a fellow in 2016, and I'm still doing it now in 2019.

So, with that being said, let's talk about history and the Compendium, shall we. I know you all are sitting here eager to know this morning, the purpose and need, and let's start it off with, what is a compendium. Good question.

A compendium is a brief summary of a larger work or of a field of knowledge. The purpose of the HMS Compendium is to provide history of, and rationale behind, existing management measures for Atlantic HMS. Here, we're going to go, and we're going to talk about the history and everything, we're going to talk it up.

Currently, information on HMS Management measures are scattered throughout multiple FMPs, amendments, and other documents, such as inseason actions, you know, all of the good stuff that make us, us.

So, what is the objective of this

compendium? The objective here is to create a reference document which will accurately provide the history of existing Atlantic HMS measures.

What I am looking to do with this document, I'm looking to consolidate information from all of these FMPs and amendments. And, as you all may not know, we have a lot of them, and there's a lot of information in these FMPs and amendments. So, I'm looking to consolidate that stuff.

This document will be a living document. This document will be updated periodically, either annually, or biannually. And, I just want to note -- and please write this down if you have a pen -- the compendium, this document, will not be a substitute for regulations, nor would it describe how to comply with regulations.

So, if you're on a boat, and I hope you have this compendium with you. Just know that this document is not the current regulations, and please do not try to use this document as your "get out of jail" card (laughter).

Just a little brief background on the compendium. The compendium was introduced in the spring of 2013, here at the AP meeting. It was reintroduced in the fall of 2015 Advisory Panel meeting, and now I am re-re-introducing it at the fall 2019 meeting.

I know you are all eagerly trying to figure out, you know, he's up here, he's giving this presentation, this is so amazing, but he hasn't gone into any of the structure of what this document is; so, this document is broken down into 11 subsections.

What are these subsections? Let me explain it to you. Don't worry, I'm going to tell you.

We are going to start with the introduction, and the introduction will focus on the history of HMS, the history of management objectives, and the history of the HMS Management process.

We then will go on a journey to the stock status, and stock determination criteria.

Here, we'll talk about the HMS stock status determination criteria, and then we'll talk about the stock status working groups that we've had throughout -- well, before I came on, and just throughout.

Here we'll talk about the shark evaluation workshops, also known as the SEW. We'll talk about the Southeast Data Assessment and Review process. We'll talk about SEDAR. And we'll talk about the ICCAT Standing Committee on Research and Statistics; so, we'll talk about the ICCAT SCRS.

We then will talk about the management history of HMS fisheries. Here, you will find the overall history of HMS fisheries by species and complex. And here, we will also focus on the details of major FMPs and amendments.

Before I started, I had no idea what HMS was, and then I started in 2016, like I mentioned earlier, and I found documents that source back to 1985 with the swordfish FMP. And I remember saying to Karyl, "Karyl, this is a large

document." And she told me, "YES, IT IS!" (laughter). You should scan it into our computer and

That thing has been sitting on my computer, and I read it sometimes and I say, oh my God, what have I been doing for the last three years.

We then will talk about the commercial management, and recreational management measures by species. So, here, we'll talk about the different quotas, retention limits, seasons, possession at sea, and landing; and restrictions on sale and purchase.

We then will talk about charter/headboat management measures by species. We'll talk about gear type by descriptions since specific management measures. So, here I will discuss bottom longline gear, pelagic longline gear, to management measures that have been associated with those gears, and all the rest of our gears.

We then will talk about dealer information, tournaments, international

considerations, and miscellaneous documents, or miscellaneous items that I find to be interesting.

So, what this document is not: This document does not include any new management measures because we are always working, and it is kind of hard to keep up with anything new. So, there's nothing new, yet. Like I said, it will be updated periodically, so we will get the new stuff in there.

This document is not a compliance guide. I just wanted to throw that back out there again. And this document does not contain certain FMP requirements, such as NEPA analysis, tables, community profiles, IRFAs & FRFAs.

What is in the HMS Compendium? Well, I got some good news for you. The HMS Compendium is a compilation of information based on actions that publish in a Federal Register, all the way back to 1975. And yes, I have read pretty much every Federal Register Notice from '75 forward.

The language in the HMS Compendium can be found in Federal Register Notices, as well as

in our FMPs and amendments.

So, here's just a quick example. I figure since we are here at the Advisory Panel, I should talk a little bit about the Advisory Panel and provide a little bit of information for my coworkers who may not know.

We have now, what's known as an Operations Team. And I don't know if the Operations Team know about the old Operations Team. But here I am, Mr. History, and I'm going to tell you guys (laughter).

With the implementation of the 1993 Shark FMP, NMFS created, what it was known as, the Operations Team. And the Operations Team was composed of members from the five regional fishery management counsels, NMFS management and scientific management personnel, and the ICCAT Advisory Committee.

And the purpose of this Operations Team was to monitor the shark fishery, and FMP, and recommend regulatory adjustments for implementation by the assistant administrator.

That is a lot.

With the 1999 FMP, the Operations Team was dissolved. In 1997, the HMS and Billfish Advisory Panels were created, as requirements of the Magnuson Stevens Act. So, I just wanted to throw out a little caveat, because I know from talking with Rick Webber on the side, he usually talks to me about the Billfish Advisory Panel, so, I threw it up there for you.

The HMS AP was created to assist in the collection and evaluation of information relevant to the development of the HMS FMPs for tunas, swordfish, and sharks, in any subsequent amendments.

In 2006, the consolidated FMP combined both the HMS AP, and the Billfish AP, into one panel, which was called the HMS AP. And they were to advise NMFS on all HMS issues, including billfish.

So, here are the tentative timelines. In 2020, please be ready and expect to get a draft. With this draft, I'm looking to solicit AP

and public comment. In 2021, I hope to release this final compendium, and update it as needed with any information.

With that being said, it was fun giving you the greatest presentation ever at the Advisory Panel. And if you have any questions, you can find me in that little corner, tucked back there.

Or, you can always send me an email, and here's my email address. Or, you can feel free to give me a phone call, at 301-427-8503. It's not up here, but don't worry, I'll come to each of you and shake your hand and give you my phone.

So, with that being said, thank you very much (applause).

MR. BROOKS: Don't go anywhere yet, because there might be questions. And also, I think if you could just give the rest of the presentations for the day (laughter), that would be great. Questions for Larry on the compendium; anything from folks. Rick?

MR. WEBER: At one point in our business we decided we'd create a manual, and we spent

probably six months creating a manual. This is coming to you, Randy.

At the end of the creation of that manual, which was great, we agreed that we will update it on a regular basis, and we did not. And therefore, all of that time, all of that effort, all of that good intent of a living document, went nowhere.

Manager to manager, if you are not behind the living document concept, this is going to be something -- I don't want you guys to create a monument. I like the idea, I like the ICCAT Compendium. But it will take higher level commitment that this is -- you know, this is a passion, clearly, of Larry's (laughter).

But assuming Larry moves out of the little corner in the side of the room, there needs to be commitment from the organization that this is something that you want, not something you're going to let Larry do, but rather, that this is something the organization wants. You get where I'm going.

MR. BLANKINSHIP: I do, Rick, and thanks for that comment. It's absolutely true. It requires the commitment of resources to be able to do it. And, obviously, a lot of times we have hotter items that we're working on as a division.

And, as you've seen, this, as Larry presented, has been going on for quite some time prior to Larry taking the bull by the horns, and carrying it forward at this point. And so, I think that represents the commitment that we've had to keep this going, even though it might not have been on the front burner all the time.

But we've had folks working on over time, previous Knauss Fellow to Larry. Larry is no longer Knauss Fellow, but back then, we had somebody else on it. Before that, we had a person on detail that was on it. And so, it's going to be something that we will continue to work on.

It has been extremely valuable already. And I know that Larry in, as a matter of fact, yes, in fact, he has read every HMS Federal Register Notice, since whatever year you said it

was. And it's been amazing when we're having our own discussions internally about, "what happened with such and such with bluefin tuna back in the 70s and something something." And he'll say, "Yeah, I think I can find that." And within minutes, he produces is, and it's really pretty amazing.

And so, it has shown it's worth, and we'll continue to do that.

MR. HUETER: Bob Hueter, Marine Lab, thank you, Larry, for the greatest presentation we've ever seen. Quick question, I know NOAA is a big Federal agency of faceless bureaucrats, that sort of thing.

You guys tend not to put names into documents like this but are names of individuals going to be included in this, especially the leaders that lead many of these efforts. The names of people on teams and panels, and the leadership within NMFS itself. Or, is this going to be just nameless history, because it's people that drive history, not titles and departments.

MR. REDD: So, currently there are no names thrown in the compendium. What I've tried to do with this document, anything that is in this document, you can actually go and trace back.

I try to give the Federal Register cite and date, and if you wanted to find out any of the names, you can always go and find the names.

What I will say for a lot of the information, the way that I found my research, it's kind of difficult to try to track down these earlier Federal Register Notices.

Typically, I would have to go onto the Library of Congress, and then from there I would need to know the exact cite, put in the cite, and then I need to know the exact date for any action. So, I have to go by date, by date, by date, by date to find these notices.

I would love to be able to throw names in, but I don't know if that's something that, really, we can do at this time. It's really something I would have to talk with Karyl and our GC and figure out if names would be adequate

enough.

MR. BROOKS: Pat.

MR. AUGUSTINE: Great job Larry. Question, will there be copies of this made available, will it be updated on a regular basis, or will it just remain in a database somewhere in a storage room within the HMS Group.

MR. REDD: This document will be online. If you want it published, I don't see why it can't be published. The only problem with it being published is it's going to be a living document. So, if it does get updated, you may have the older compendium but I'm pretty sure we could work that out.

MR. AUGUSTINE: My concern was, again, putting out a publication that just sat around on desktops everywhere, as it did a year or two ago when Margo talked about putting out a document of what was going here, and I requested about three cases of the stuff in 20 weight paper, so I could wrap them and use tie-ties on them, and use them for logs in my fire.

No, I'm serious about it because what happens in most cases, as you all know, a lot of publications are made, had been made, and they go in a storage room somewhere, never requested and they'd be thrown out as just wasted paper.

I'm glad to hear that that this is going to be in a data set that we can access at any time, and I think that's an important move. And you did a great job on this, Larry, so, keep it up.

MR. BROOKS: Thanks Pat. Any AP members on the phone have any questions?

OPERATOR: The phone lines are open.

MR. BROOKS: Okay, thanks, Operator. The AP members on the phone, any questions? Okay, David.

MR. SCHALIT: Just a quick question, have you ever considered an alternative career in stand-up comedy?

MR. REDD: So, at one point, I wanted to be a stand- up comedian (laughter), and then I gave a joke that wasn't really funny. It was

funny to me, but it wasn't funny to the people in the room, and I was just like, yeah, I think I'll go with fish instead (laughter).

MR. BROOKS: Okay, any other questions for Larry? If not, Larry, thank you very much. I appreciate it.

MR. REDD: Thanks Bennett.

MR. BROOKS: All right, well, Craig, if you dare (laughter), come on up. So, again, Craig is going to give us stock assessment updates on yellowfin tuna, white marlin, and shortfin mako, and I think the plan will be to maybe take -- Craig, do you want to take questions after each update?

MR. BROWN: That's fine, yes.

MR. BROOKS: Yeah, okay, great.

MR. BROWN: Well, it's always tough to follow the greatest presentation ever (laughter), but I'll try. Larry, sorry to surprise you and get you up first this morning.

If it's any consolation, I had looked at the agenda where it said Science Center Staff and

shortfin mako was on the list, and I assumed Enric would be presenting that, and so I find this morning that Enric was assuming that I was going to be presenting that. So, I've been --

MR. BLANKINSHIP: So, this is a well-rehearsed presentation (laughter).

MR. BROWN: Yes. So, with that step up, you know that this is going to be the second-best presentation ever (laughter), but we'll see. I don't know. Enric is online, so we'll have to see. I'll present this first, and either he'll have something or maybe we can put something together for later if we can squeeze it in today. But we'll start off with white marlin.

The white marlin assessment was held, we actually had two meetings this year. First, a data preparatory meeting, and then the assessment meeting in Miami. And I'm giving an abbreviated version here of a talk that I'll give in greater detail this afternoon. Apologies, to those who are on the IAC as well, for having to endure this twice. I'm going to start off with one of the

issues that we spent a lot of time about both at the data prep, and at the meeting. As we've mentioned earlier, I think, in the meeting, there are few countries that report on discards at all, and certainly the dead discards of white marlin. There are only a few countries that are currently reporting only six, and that's only recently that some of those have started reporting. So, especially if we're used to the U.S. longline fishery, where there's no retention allowed, no sale, we would expect there to be quite a few discards, and some of those would be dead. Something to consider, though, is that other countries generally allow the retention and allow the sale of marlin, so our expectations of that high rate may be a bit higher than the reality of what there is. And so, we attempted to get reports from the Observer Program as to what the scientific observers were seeing, but we only had one country -- well, two -- I mean, I did report to myself what the U.S. Observer Program was saying. But it doesn't really apply because not

only do we report, but we would, as expected, would have a much higher rate than everybody else. And, that was from Portugal, and they had a relatively low rate of maybe about two to three percent that would be discarded dead of their catch in the years for which they had data. And so, the Secretariat did an exercise where they looked at the countries, the six countries -- well, the five countries, other than U.S., because ours is a different rate, to see what fraction of their catch was reported as being discarded dead. And it was relatively low, between zero and 2.4 percent. So, there was an average applied to the non-reporting nations to increase their catch for the purposes of the assessment. And the warden group decided to go forward with those estimates included. This is a history of what's in the ICCAT data base of landings. As you can see, historically, in the '60s there was a high peak -- I don't know if there's a pointer?

MR. BLANKINSHIP: I can get you one.

MR. BROWN: But there was a period of

high landings until we had a series of measures put in place to try to reduce the catch.

And in the late 1990s when we see a decline, and it's been relatively stable, maybe declining slightly, in recent years at around 500 tons, between 4 and 500 tons. There's a TAC of 400 tons, but that's been exceeded, if not always, most of the time in the recent years.

We used two different types of assessment models to do the assessment. I won't go into a lot of detail, and maybe even this is too much, but the first is stock synthesis, which is a fully integrated link-based age structured model.

So, essentially what that means is it has the ability to look at a wide variety of data, the link frequency date, even age data if you had it, as well and indexes and so forth, and it finds the best fit across the various sources of data to explain what the stock has been doing, over the past years that it's been exploited.

The other is something called JABBA, and

the coincidence is intentional if you go to Star Wars, but it really has nothing to do with what the model does.

It's a type of surplus production model, and surplus production models, one of the basic properties of that is that it looks basically at the total catch taken from the stock over the effort, made relative to the effort -- and this is the standardized effort over time, in its simplistic form.

This particular one is a little more sophisticated, or much more sophisticated than the very basic surplus production models, and it applies a Bayesian approach.

And, just briefly, Bayesian is a type of statistics, unlike the normal frequentist you're used to seeing. It basically allows us to put up prior assumption on the distributions of the various parameters that go into the model based on, hopefully, data that we've done, studies, to kind of pin it down, or educated guesses as to what the range would be.

And then fits across all the data again, to produce a distribution of those parameters after the fact that is consistent with the data that's put in.

So, basically, they were structured to be comparable in what they were assuming about the life history parameters between the two models. And a lot of that was hammered out at the data prep meeting.

We had a number of standardized CPUE series for indexes of abundance all fishery dependent that were available that passed the initial review at the data prep. And they're grouped somewhat by gears and trends.

We have two indexes of abundance. One, the longest, is from the USA tournament data, rod and reel, and the other is from Brazil. They have a rod and reel survey. And they are both somewhat increasing in recent years.

On the right we have the longline from Brazil and the USA, and they also could be seen as having a little bit of an up-tick in recent years

compared to the early period, although it's hard to see here. But it's a bit contrasting from what we have from the Chinese Tapei, and Japanese longline series.

These are broken in the middle because they changed methodology, and that couldn't be accounted for in the standardization.

And finally, we have the longline from Spain and Venezuela, and Gillnet. These have a little bit stranger trends. The Spanish index does this jump like it thinks it's superman at the end, and that index was only used in sensitivities. It didn't form part of the assessment advice.

What I'm showing here is a comparison of the U.S. Rod and reel index and the longline index, and the reason I'm showing it is, during the blue marlin stock assessment there was a lot of discussion about whether it was appropriate to use the rod and reel index, even though it had been used historically, because it was argued that there had been changes over the years to improve

the fishing power, to improve the efficiency to increase the catchability of fish by the changes in the vessels, the ability to range further, all their fishing gear and so forth.

None of which is available in the data set to help standardize it, and so, that's a very reasonable argument and it carried the date during Blue Marlin in that index wasn't used. So, we revisited the discussion for the white marlin assessment.

Part of the argument was, "Well, we should be consistent, and we didn't use it for blue marlin, why should be use it white marlin?" But the group, in looking at it anew, couldn't really find a solid reason to not use it, and left it up for the assessment meeting to decide. And, this is part of the human input in this process, that they reached a different decision and decided to use it.

But, at some point during the meeting, I plotted these two together and you can see that it's hard to say that the blue, which is a rod and

reel, is increasing with an unstandardized CPUE that's artificially increasing because we can't account for that, compared to the longline. In fact, many times they're going up and down together.

So, there are a lot of explanations for this since this longline index is coming from the Observer data, which we think, from all we can tell, that this is the best standardized index of all of them, that either the fishing power of the vessels engaged at the tournaments hasn't decreased anywhere near as much as we were thinking when we were discussing it at Blue Marlin.

Or, another possibility is that what's driving these indexes is less the overall abundance of the stock, than the availability within the region that these indexes cover. That, perhaps, some are more available, and others, there are less, and that's why they're going up and down together.

It's one of those things, you know,

perhaps future research will tell us. But, in any event, it doesn't demonstrate a strong argument that we had to discard the rod and reel.

Jump to the end result, if you look at the results from the various final base cases for each model, we had a couple of different alternatives for the stock synthesis, one for JABBA, the surplus production, and it ends up with this with clodda point scale, with cintrotin you see around here.

These, where you see on the margins, this is the distribution of each model in terms of the relative biomass. So, here we would have the goal to be for B to be at or above biomass over biomass MS, that produces MSY.

And on this axis going up, you want to stay below this line, and these are showing that the fishing mortality rate relative to the fishing morality rate that would produce MSY is lower.

So, that means that these estimates are saying that currently, or as of 2017, which is the last year of the data, the stock was not

undergoing overfishing; but it was, however, overfished, and fairly substantially overfished.

And these results are fairly similar to what we got at the last assessment sometime ago for white marlin; maybe a little bit better.

And if we look at the projections, now, you may be familiar with the Kobe Strategy Matrix that we provide managers, which essentially says that if you are to fix the TAC at a certain catch level and carry it forward through time, what would be your probability of ending or overfishing, or keeping it in the greens area, and what would be your probability of rebuilding, or keeping the biomass in the green area.

So, the way we did it is we project, with all the uncertainty incorporated so we get a range of values, what the stock is doing into the future at different catch levels.

And so, on the left we have -- this is the relative biomass, on this vertical scale projected forward through time, and we're seeing it's projected for 2019, but we really assume for

all the scenarios that it's carried over the catch that was reported for 2018 -- actually, it was 2017 carried over for both 2018 and 2019, which is 458 tons.

So, there's a big assumption but that's why these don't deviate until 2020, which will be the first year that the commission could take any action anyway, or to implement any recommendation.

So, these given lines are the different alternative levels of catch TAC moving forward, and they represent the median, or the central tendency, of all the results.

The red on the top is, if you shut down the fishing altogether somehow, and didn't take any more white marlin, then you'd expect the biomass to increase following this line. So, it would end being overfished by less than 2022, which is pretty good from coming from something that's.6 or.7, I think.

And then the most extreme was 1,600 you see some decline, but it does suggest by the end of this period, or even by as early as 2025 or

2026, that a catch as high as -- see this is 1,600, 1,400, 1,200; as high as 1,000 tons would still recover the stock. And 1,000 tons would -- so, here you have the Relative F, and you want to end up below this line, in this case.

So, this is saying that the 1,000 tons, you would never be undergoing at overfishing into the future.

Well, that's great news. That's a lot. It would really allow the catch to go up, and you know, we don't have anything against great news. That would be wonderful. But the scientific process is intended to be one of skepticism, and so, especially when you see something that looks too good to be true, you're skeptical and you want to look into it.

And as an explanation for at least one of the reasons we're skeptical about this; you can look at the same Kobe plots individually by the models, and layover it the median or average estimate of the stock status over time.

And so, what we see here with this line

is something that is a stock that's pretty much behaving more or less as you would expect.

It starts out in an unfished state with a biomass that's more than twice the biomass you would need to sustain MSY. And as it goes up, that means there's more fishing mortality rate being applied relative to the FMSY.

As it goes up, it starts to move to the left as the biomass drops; the relative biomass drops and eventually it gets to a state where it's above FMSY for a while, continues to decline, the fishing mortality rate drops down, it's still declining though because it's not at the automat surplus of BMSY, and it goes into the red as the F is maintained above, and well above, up to three times the FMSY. It goes well into the red of the low biomass, and very high Relative F.

And then, it does something that's maybe a little different, is that the F stays high and slowly comes down, as you see -- remember the catches, the catches came down with the application of the management.

And the F does down slowly, the biomass -- because this is almost vertical -- the relative biomass isn't changing, and you could see that from those earlier plots that for quite some time the biomass has been the same, or maybe very slightly increasing.

So, why was it suddenly stable after doing as you expect, and declining with the high Fs, and you see the same thing -- you know, these are very much the same thing if you apply the stock synthesis, this is one of the final models, and the other just shows more or less the same thing.

If we were to project forward at the same catches we've seen more or less that between 4 and 500 tons, in the future we see in these projections, the stock is suddenly going to rebound and quickly get better, even with more than double the catch it gets better in just five years; so, what's going on with that.

Basically, what's going on, among other things, is the stock synthesis, when you project,

assumes that the recruitment you're going to see, the supply things, is going to be off the normal, off the usual stock recruitment relationship. But the stock synthesis is estimating that for all this time, recruitments were very high.

So, even though F was high, the stock was able to stay where it was because the recruitments were abnormally high.

Sorry, I'll have to go back, because I may have that backwards, but, yeah, they were abnormally low because -- anyway, it shifts in the future to higher than we've observed.

And the JABBA model has something called Process Error, which could be a difference in recruitment, which it can't account for, or catch reporting that changed, or indexes of abundance which haven't been properly standardized; any number of things. But, moving forward, suddenly all that's wiped out, and it says that the stock is going to just increase.

So, because of all that, we're saying ignore these projections and ignore these Kobe

Strategy Matrixes. What you need to do is -- these may be overly optimistic, so you should interpret those with caution.

In fact, we need to stay with the same TAC that we've had. And, in fact it's been exceeded a number of times, and the more you exceed this, the slower the rebuilding would be, or you could even have further declines.

Because of all the concerns about the completeness of the removals, we want to ensure that the monitoring and reporting is complete, including live releases. We talked about this yesterday; that that's appropriate, accurate, and complete. We talked about recommending that estimation methods be implemented to estimate the discards.

Also, we want to include in that fully accounting for artisanal, and all recreational fisheries, sound familiar?

So, this is what we are recommending coming out of the group. We'll see how much of this survives the plenary session to move on to

the commission.

Whoops, so I've managed to hit a button that increases this (laughter), okay, here we go.

And so, yeah, stay within the TAC. And in order to avoid exceeding the TAC, as has been done, the commission should require that all Marlins that are still alive at haul- back -- and again, as you saw earlier, this is almost all longline -- be released in a way that keeps them alive.

And the use of circle hooks should be mandated. Research has shown that that use of circle hooks results in a reduction of their marlin catch rates, and haulback mortality.

So, that's all there was. I spent a little more time on this, but if there are any questions? I'm not sure how much time we have for that.

MR. BROOKS: Let's take a couple of questions right now, and I will just hold it to a couple, just so you can get through all the assessments, and then if we have some more time at

the end, we can double-back. Questions? Rick.

MR. WEBER: Craig, the operating assumption is it's one stock. Is there any -- I've got two questions for you actually.

One is, is there any ability -- I don't know one stock to multiple stocks; I feel like we have gotten a benefit, a localized benefit, from our conservation measures, and I don't know how that fits into a one homogenous stock concept because I feel sometimes that's where the fight is. If it's all one homogenous stock, how come they're not seeing it over there. And it may be one stock, but I've never felt like it was one homogenous stock.

And two, you and I go back and forth on the science and the trustworthiness, but there are miscellaneous billfish categories that I was curious whether there was any consideration of the BIL, you know, that went into white marlin.

And while you were talking, I'm playing here in Task 1, Spain suddenly in their longbill spearfish in 2017 jumped from 24 tons to 273 tons

of longbill spearfish that was probably not longbill spearfish.

What is the assessment process? Do you guys actually look at each other and kind of go, "Nah, it doesn't seem rational."

MR. BROWN: Well, there's a lot of research recommendations as well from this meeting and others from earlier meetings that I haven't gotten into here. And certainly, species ID is understood to be an issue.

Things have gotten better over time but one of the biggest is the separation of white marlin and roundscale spearfish. Essentially, we're treating them together because we don't know how much of the white marlin is actually roundscale, and so forth.

And, so, yes, when we go through, it's particularly a focus. And in the data prep, we try to get to our best estimates, not necessarily just what's reported, of the stock.

And with respect to your question about the stocks, the concept of a stock is, basically,

what is the unit which should be managed together. It doesn't mean, necessarily, in fact, there's no real-life example, unless you're talking about a pond where there's immediate mixing of everything, of what you do on one side of the area immediately has an effect throughout.

There have been discussions, in case of skipjack, of viscous properties of the stock, meaning that you can have local depletions that are felt, have an effect on the fishery in that area, even though stock-wide, things may be okay.

I'm not saying whether or not that's the case here for white marlin, but it certainly is consistent with the idea of Atlantic-wide stock, but that doesn't mean more research to help pin that down is not worthwhile.

MR. BROOKS: Thanks. I can't quite tell if that's Kirby or Marcos. Marcos?

MR. HANKE: Following up with Rick's point is, it's very interesting to me that with the white marlin we are not making any attempt to include Dominican Republic tournaments and

activities for the white marlin.

There are specific tournaments in there that catch a lot of white marlin in the Dominican Republic, and there are historical participants that go there. Many different groups, international groups, that organize tournaments in the Dominican Republic that I think is something that if we work a little bit, we could get some data for you guys to work on it.

I think that is there. There are some historical records of that. We just have to contact those people.

And there is a study for sailfish made in Guatemala that include the number of raised fish and different, other things, that produce some interesting numbers for Guatemala sailfish.

Something like that should be explored in the Dominican Republic. That's my point, and that will address some of the questions and points that Rick brought to the table about how localized the stock are and the things that we don't know.

MR. BROWN: I think that's a fair point.

I should point out that our recreational billfish survey historically is now part of a larger database, but it still could be considered as a separate entity moving forward.

The tournament survey includes tournaments that are not based in the U.S. I would have to look to see if, possibly, we have included that, at least sometime in the past.

But, because U.S. anglers participate in tournaments that are in different places throughout the Caribbean, for example, we've tried to work with those tournament operators and include that data. But maybe I can find out about that this morning and let you know.

I'm not familiar with that tournament being in there, so I suspect it might not be. But there's no reason that we couldn't include it, particularly, if there are U.S. Anglers participating, which I suspect is the case.

MR. BROOKS: Thanks, let's push -- oh, Fly, let's get you in and then Alan, your card is back up?

MR. NAVARRO: This is just a real quick statement. I put on one of those tournaments in the Dominican Republic, and we do report back to you.

MR. BROWN: Okay.

MR. NAVARRO: So, all that information should be in your database.

MR. BROOKS: Thanks Fly, Alan.

MR. WEISS: Thanks, you mentioned that you think the most dependable time series for determining the stock abundance is the U.S. Longline time series. And, you also mentioned that the catch rates on circle hooks are lower, according to research that's been done.

So, my question is, has an adjustment been made to the CPUE time series to account for the change from J-hooks to circle hooks in the longline fishery?

And if not, is it possible that the use of circle hooks, the decline in catches since the advent of circle hooks in that fishery, is masking more of a recovery.

MR. BROWN: Thanks, that's a good question. To clarify, I didn't actually say that the U.S. longline was the best representation of the abundance of the stock, but rather, that it was the best standardization of the indexes, meaning that we've taken the factors, like the largest number of factors that could have influenced the catchability, collected by scientific observers, and incorporated that into the standardization.

It being reflective of the abundance includes other assumptions, like, whether the U.S. Area is reflective of the overall stock, and so forth, other things.

As to the circle hook issue, yes, that's been accounted for in the standardization. That's one of the reasons it's one of the best standardizations because we have data like this, including over time the shift from J-hooks to circle hooks, and enough that allows us to incorporate that factor in the standardization and account for that.

MR. BROOKS: Thanks, I think Jason on the Webinar has a question. We'll take that and then we'll shift to Atlantic yellowfin tuna. Jason.

MR. SCHRATWIESER: Thanks, can everybody hear me?

MR. BROOKS: Yep.

MR. SCHRATWIESER: Apologies for not being able to be there. Thanks for the presentation. I missed some of it, Craig, but I jumped in during the projection.

I'm just kind of curious about this because the company projections from the last assessment were much, much more pessimistic than what's being shown here. And, how do you reconcile that?

MR. BROWN: Well, it's basically related to what I was mentioning before, which is that the model can't say exactly what's going on since the late 1990s in the response of the stock to the reduction in catches, where it's not been increasing.

But whatever is going on to hold the stock, to keep the stock from declining further at 458 tons -- or rather, increasing at 458 tons -- when you would have expected it to increase, in the projections moving forward, it would start increasing.

So, there's different alternatives. One is -- and you know, now that I'm trying to think on the fly -- but yes, the stock synthesis is saying, the reason why as catches have reduced the stock hasn't increased in biomass, is because for the past 20 years, recruitments have tended to be lower than average.

But when you project forward, it's the projection software considering that moving forward you're going to have an average recruitment based on the relationship, the stock recruitment relationship. And that hasn't been happening.

So, the idea that, coincidentally with changing your management this year because we had an assessment, suddenly recruitments going to

change, is a bit of a leap.

And so, I can't recall what the situation -- you know, a number of factors can influence things; what was stock synthesis showing the last time for the relationship. But I know the assessment included ASPIC, which doesn't have recruitment in it at all, and doesn't have the process error that JABBA has, which is effectively doing the same thing.

It's saying that something has been going on in the past 20 years that has held the stock down. But when you project forward, we're going to assume that that goes away, whatever it was.

So that's why things are jumping up. But we're really skeptical about it, and I'm not sure that the inclusion of the strategy matrixes that would come out of these projections is going to survive plenary. It may be that since we're not supporting their use, maybe we shouldn't even pass them along. That's my opinion.

MR. SCHRATWIESER: Thanks Craig.

MR. BROOKS: Thanks Jason. All right, anyone else on the Webinar have a question right now? Okay, if not, Craig, let's move into yellowfin tuna.

How many folks in the room are going to want to make public comments at the end of today? Okay, so I think we can definitely borrow some time from that. So, I think if you can hit this one about 15 minutes, or so; 10/15?

MR. BROWN: So, I'll spoil the plot a bit on this as well, in saying this may be another case of too good to be true, but we'll see.

We certainly had high hopes for this year's stock assessment because we had a new index develop the same way that we did for bigeye, which was to get the major longline fleets scientists together pull the data and calculate a single index of abundance covering all those fleets.

So, we had much broader coverage, ocean-wide coverage. We could look at different regions and standardize it in the same way. So, we didn't have this problem of indexes conflicting

with each other, which give the models fits.

And, in the case of bigeye, this resulted in a much better behaving assessment model than we've seen before, and we had a lot more confidence in the results. So, we had high hopes from that perspective.

We had a few other things as we move here that looked positive as well, and maybe they were. We can all be the judge.

This is the history of catches for yellowfin, and one of the things that had us coming into this meeting expecting the worst release -- maybe not the worst, but not particularly good news -- is that we had recommended a TAC of 110,000 since 2012 when it was adopted, but it's been exceeded, as you can see, in the most recent years. The status was already on edge, so we were concerned what that would be doing to the stock status.

These values, actually, where it's been exceeding the TAC were lower at the assessment meeting than we've previously reported because the

Ghanaian catches were revised with some further analysis to separate by species and size.

The blue showed where we thought the yellowfin had been as of 2018, but for this year's work you can see there was a reduction. This is the new estimates for this period; there's a reduction. The overall catch of yellowfin was a little bit lower, historically, in recent years than we thought it was. I alluded to some new data that we had that we think was really going to help us out. This is a study coming from the U.S. It's using data that we've collected from various fisheries from the otolith of yellowfin, and there's a new validation on the accounts of the rings to confirm what is that has a yearly periodicity, confirmed using the radiation, that the isotope levels caused by the radiation from the bomb test. And so, we have some really solid science to back up that these are actually annual rings that are being counted.

And we have a huge sample size, larger than anything that's been available for, and this

shows you the various data. This includes some sources from Ascension Island, which is being done by a completely separate group.

One of the big takeaways is that both in Ascension Island, and in the U.S. where we saw several cases of this, there was a maximum age observed of 18. Previously we had assumed 11 based on our conventional tag recapture data. So that's a big change. These fish are living a lot longer than we thought they were, and they're growing a bit differently.

So, this has implications for natural mortality. If they're living to be 18 instead of 11, then your natural mortality can't be quite as high as we were assuming because too many of them would have died off for us to be able to observe them at 18.

So, this is our calculation. You don't need to really get too concerned about the values here, but we're assuming that there is higher natural mortality when they're very young, and that drops off as they get older and have less of,

for example, predation. But overall, this natural mortality rate by size, by age, has been reduced from what we assumed before.

These are indexes that passed the review and were available for use. So, we had the Joint Longline Index, which is up here, by different areas. You can see there was an overall decline, perhaps, in the one region here coming up a little bit.

We had two new indexes, which a bit unfortunately, were the case of the Purse Seine Index -- I don't know if it was fully available during the data prep, where we do our thorough review of the indexes -- and in the case of below, this is a new buoy derived abundance index and I'll explain what it is a bit more.

They were developed following recommendations we made at the data prep with the decision for inclusion and not deferred to the assessment meeting. And again, here's the human element, that through the discussions we ended up including them.

This is kind of unusual for this Purse Seine Index, their new technique. Neither one of those in their current form went through the whole data review process, so some of us have some concerns.

The Buoy Index is kind of exciting in it's potential. The question is, whether it really needs some more work before ready for prime time. But here it's being used in prime time.

Essentially, what it is, is the FADs, the Fish Aggregating Devices that are deployed by the Purse Seine in the Eastern Tropic Atlantic are equipped with sonar. And so, this particular study used the data from the sonar of the strength of the signal coming back, as an overall estimate of the biomass that aggregate, and the rate that the biomass aggregates around these FADs. And then they assign the species based on the catches off those FADs, in more or less the same time period.

So, there are some concerns. The Joint Index starts in 1979. Historically, we've had a

lot more years in the indexes from the Japanese Index, for example. Their data starts much earlier.

But the Japanese scientists no longer support the use of the early years, because they say there was a change in targeting which isn't being accounted for in the standardization, and they don't have the data in their database to account for it.

The consequence is that we lose the data that previously showed a big decline from the early period. So, we've lost a lot of contrast that has a big influence in the results.

That being said, perhaps that's a good thing. If, in fact, that data was bad, you certainly don't want to use it. But it's possible they were bad, but they still would have shown a decline of some sort, and we don't have that coming to the model. So, it really has an influence on our perception.

For the Purse Seine Index, there still are questions about how we're really accounting

for the effective effort of Purse Seine.

The Buoy Index, as I mentioned, it's using a target, the strength, to get at the overall biomass, but there's a lot of questions as to whether really getting the species composition right. So, is it applying, this index, does it apply for all the tropical tuna species, or for yellowfin specifically?

And the last thing that was a bit difficult here is that it increases a lot in the last years. And, it happens to be at a time when there's no other data within stock synthesis, size data, which is completely absent for 2018 -- that's another issue I'll get into this afternoon -- that there's nothing to integrate with that particular source of data. So, it has complete control influence over what the juvenile relative abundance is, so it's got a lot of influence in those years.

That translates to very optimistic projections, which gets us to, again, maybe that "maybe too good to be true."

So, I won't get into this. This is just all the different configurations to the model; why we have in the next slide a lot of different lines. And this is showing the decline of the relative biomass over time.

What was unexpected, considering we were coming into this expecting things to be looking worse than before, is that with only one exception here, and until the very latest time period, it's suggesting the stock was never overfished in the history, until we get to 2008, or something like that. That's in contrast to results we've had before.

If we look at the relative fishing mortality, it's also suggesting, with the exception of one of the models, that there was never overfishing for this stock, until the recent years. And then only for some of the models.

So, it doesn't mean that it's wrong. It's just, you know, when something surprises you, you want to make sure that it's right.

And there's a lot of potential things

that could have an effect on those results that might tend to bias it. But we don't have proof of that at this point. What we can do is urge caution.

This is the current stock status that's coming out of consolidating it against across all the model runs, which is basically that it's current status as of 2018 is not overfished, and not undergoing overfishing.

One of the things that we've said before is taking place, we're still saying it's taking place, is that the shift to increasing use of FADs in the Purse Seine fishery has changed the MSY from where it was up here, to a drop from around 170,000 to maybe 120,000, 130, 110, depending on which model you look at because they're catching smaller fish.

This is the Strategy Matrix. It's saying that 120,000, which is above the previous TAC, of the current TAC still, that 120,000 would keep you in the green. We're saying you're in the green right now, and it would keep you in the

green for 120,000 tons.

So that's basically what, subject to revision at the plenary, we may be moving forward with as a recommendation for a new TAC.

I did want to thank Shannon Clay, who is the chair of the yellowfin group, and my new boss as of the last -- it's always good to thank your boss -- officially, as of the last couple of months as she has taken over Clay Porch, as he moved up to Center Director, she's now the Division Director for Sustainable Fisheries.

And of course, Michael Schirrippa, who ran the stock synthesis for white marlin, and John Walter who ran that for yellowfin. So, if we have any questions, I'm open for that.

MR. BROOKS: Sure, let's take a couple of more questions before shortfin. George.

MR. PURMONT: Good morning, thank you very much for your presentation. On your fisheries indicators you have a joint longline CPUE, Region 1 and Region 2. Whereabouts are they located? And, is that an area that is the history

of you go there and that's where you do your study on an annual basis, or on your survey basis?

MR. BROOKS: Turn off your mic, George.

MR. PURMONT: Oh, sorry.

MR. BROOKS: Thanks.

MR. BROWN: That's a good question. I had that same question myself. I got these slides from Shannon -- or, the final version of the slides last night, and I asked myself that question, but I haven't had a chance to look back at this report and remember which was which.

Basically, I think that the upper one was the central area where most of the fishing takes place, and that we use for most of the models, wound up being that one that turns up very slightly at the top, but I would have to double check.

Ideally, I would have revised that, to say actually what it was for this audience, but I kind of wrapped things up at 4 this morning, so I thought it was better to get a couple of hours of sleep than to do that. But, if you're interested,

I'll try to dig that up.

MR. PURMONT: Thank you very much.

MR. BROOKS: Thanks, David, and then over to Mike.

MR. SCHALIT: Craig, 4 a.m. huh? That was actually an impressive presentation. I've got a couple of questions/comments. Let's save the best one for last.

My understanding is Echo Sounder Buoy Index, this is a really interesting thing. I just want to understand; is it possible that to be able to distinguish species in the imaging from the echo sounders?

MR. BROWN: There's a lot of research going on in that topic. Most of it in the Indian Ocean because there's great interest in being able to do that.

They could be one way to, for example, reduce the catches on FADS of bigeyeye, which is a concern of the three tropical species in the fishery, the biggest concern for catching the juvenile is the bigeye. But they haven't

succeeded yet in doing that.

I mean, if they had a swim bladder, which one of the species has, it helps but they really haven't gotten to a workable solution to do that. But that's one of the goals of the research. We'll see how it pans out.

MR. SCHALIT: Then, further to that, I would assume that it's possible if we use the data from the port inspectors who are looking at the composition of the --

MR. BROOKS: David, can you get a little bit closer to the mic?

MR. SCHALIT: I'm sorry.

MR. BROOKS: Thank you.

MR. SCHALIT: The port inspectors have access to the data, or they are the ones who collect the data regarding the composition of the catch in connection with bycatch and targeted species. Would it be possible to use that data as a proxy for what you're looking at on the echo sounder? You follow me on this? In terms of the breakdown of the different species?

MR. BROWN: Well, that's what they're doing in this case. The case made by the presenters of the index saying that this is well known because they're using the catches from those particular FADs.

I mean, the data is collected over a period of time, and then they're collecting the fish and they're using that data. But, of course, there are -- you know, we haven't really had a chance to really review in detail the methodologies, but you always have issues with the confidence.

There's a log that says, this well was filled from this set, or these group of sets sometimes. And so, to what extent are they using wells that only came from that FAD and so forth.

We really haven't had time to get into and that can really impact your assignments for species composition. And it's also a sample. It's not a census of what you get.

MR. SCHALIT: Two more things: This data regarding this otolith data, is

revolutionary. I mean, it completely turns things around here. I'm wondering how you would characterize.

I mean, we're talking about natural mortality doubling, effectively, would you say, more or less. So, how would you characterize that that affects the spawning, SCRS view of spawning stock biomass? That change.

MR. BROWN: Well, first of all, the change in our estimation of natural mortality went in the opposite direction. That it would be lower in the latest assessment than what we assumed before because your natural mortality rate is lower, it allows you to grow towards older ages.

It doesn't directly have an impact on our estimate of the spawning stock biomass because that's coming from the age structured component of the stock synthesis. But, one of the things it can have an impact on is the relative implications of more or less focus on fishing smaller fish.

If you have a high natural mortality, then at some point you can say well, it doesn't

matter that much if we're fishing the small fish really hard, because they're going to die anyway, essentially.

If you have a lower natural mortality rate, then what's happening with the smallest fish is more important to what's available, for example, to the longline fishery. So, it can have major implications for yield per recruit, which goes into this chain, the trend in MSY.

You might get a different -- I mean, that's calculated in a different process but, basically, your expected yield at MSY for a different selectivity pattern, your proportion of small fish to big fish etc., is changed. Your expectation is changed if the natural mortality rate changes.

MR. BROOKS: We need to be pushing forward here in no more than 10 minutes. Are we going to be presenting on shortfin mako -- yeah, I know but we're getting some [off mic]. Okay, we need to finish this up by 10, so I've got 8 minutes left and we'll just stay on this.

David, you had one other comment or question, and then we'll go to Mike, and then down to Dewey, and anybody on the phone too.

MR. SCHALIT: I just want to understand clearly the implications here. Is my understanding correct that the yellowfin is now understood to live for a longer period of time? And if that is in fact the case, would that not affect fecundity?

MR. BROWN: I mean, it could indicate that you would spend more time, larger than the size or the age, at which they're mature. Technically, with fecundity, there may be other factors that -- I mean, if you don't maintain fecundity through that whole time period, that's not something we've looked into.

It's really, for the stock assessment purposes as we're currently applying it, the biomass in the spawning stock, basically, the mature biomass is not treated different, whether it's an older fish, or just turned mature. It's the biomass is a proxy for the fecundity which

would be a proxy for the recruitment.

MR. BROOKS: Okay, thanks.

MR. BLANKINSHIP: And, to answer your first question, is yes, the estimates with the new otolith data show that the fish are living longer than previously thought.

MR. BROOKS: Mike.

MR. PIERDINOCK: Thank you, Craig, well done. Your one slide indicates that the selectivity has shifted to smaller fish since the 1980s. And then, as was just noted, that there's been a maximum age going from 11 to 18 years. That seems inconsistent to me.

Can you maybe explain that and make that a little clearer to understand why that is the case? Because, I would expect that if there's a shifting to smaller fish, we would not have an increase in size. But maybe you can explain that to me, thanks.

MR. BROWN: Yes, I probably need to clarify. What's changed from our previous science is we've had a greater sample size. So, we've had

a larger effort to age yellowfin tuna from otolith, and we've had a confirmation that we haven't had before as to what structures are laid down annually.

So, it's not that in recent years the fish have started living longer; but that we now have a basis to conclude that they live longer. And the assumption is they've always done so.

In fact, if we didn't have the increase fishing mortality on young fish, we might more easily find those 18 year-old fish. And who knows, in the sample size we had, we might have seen even older fish.

MR. BROOKS: Thanks, anybody on the Webinar, AP members who want to jump into this conversation either with a question or a comment? And operator, you can open the lines if they're not open.

OPERATOR: All lines are open.

MR. BROOKS: Thanks, again, any AP members want to jump in on this presentation with a question or a comment? Okay, if not, and I

don't see any other questions on the table.

Craig, we're going to go to a break, we're going to give you a chance to figure out whether you can come back later and give us an update on the shortfin mako, and we'll just figure that one out.

Okay, we'll take a 15-minute break. So, we'll reconvene and somewhere between 10:10 and 10:15, I'll start harassing you (laughter). Thanks.

(Recess)

MR. BROOKS: All right, everyone back to the table, please. We've got a bunch still to get through here so if folks in the back room can come in. Thank you, Katie. How are you?

All right, again, if AP members can take their seats please. So just to catch people up on where we are at with the agenda. Alright, a couple of things just to note. One, as they did yesterday, Karyl and Randy will be doing their swap so Karyl will be up front here for the next chunk of presentations and discussion. In a

second, I am going to hand the floor off to Brad, who will give us the bluefin tuna update.

He will probably push through this a little faster than 45 minutes because we need to make up a little bit of time. He's going to be turbo charged. At about 10:50, we will go to enforcement updates and then at 11:20, we will -- we are hoping we will have an update on the shortfin mako assessment but we'll see.

MR. McHALE: Yes.

MR. BROOKS: We will. So we will have a fairly short verbal update on that one and then at 11:30, we will go to public comment and then wrap up after that and then adjourning at noon. So with that, Brad, over to you.

MR. McHALE: So thank you. This will be a relatively familiar format so just as Bennett had mentioned, I am going to rip through this so we can make up a little bit of ground so please enjoy the most adequate presentation you have ever seen. (laughter)

So, 2019 inseason actions, did quite a

few when it came to quota transfers. Pretty commonplace over the last number of years where we have done some shifts in quota in the winter fishery or essentially we have moved December quota forward within the same calendar year, to January as well as did a number of other transfers, again, providing additional opportunities as were warranted, you know, as we go through our determination criteria.

Also pretty standard is looking at the purse seine in previous years' catch and when following the protocols in Amendment 7, moving that into the reserve category to be available to transfer to other categories as warranted and needed and you will also recall that we did a couple of transfers to the harpoon category this year. We have done a number of transfers in years past.

Typically, those transfers were the kiss of death for that fishery, as soon as we transferred more quota in, that fishery completely ceased to be and so this year we took a longer

look of transferring or providing additional opportunity there than we had maybe in the past too.

When it comes to the inseason actions we took regarding our recreational retention limits, pretty much standard here other than we did increase the recreational limits for school fish and large school fish for our headboats. These are our Coast Guard inspected vessels to carry more than 6 passengers essentially and some of the data that fed into this decision was underutilization of that school and large school quotas in years past.

Something we have already touched on in this meeting, as well as in prior meetings and scoping is the trophy fishery for our recreational community. These are the large and medium giants that can be landed and not sold and essentially we made it to March in our southern areas so these fish are predominately landed out of the North Carolina fishery.

We closed the Gulf of Mexico incidental

trophy fishery at the end of May and we made it to the end of June before that closure took place and this is also an item that will be entertained as part of the Amendment 13 process as we heard from Tom in that discussion yesterday.

As far as initial recreational landing estimates derived from the Large Pelagics Survey as well as the North Carolina catch card program, you'll see in this table that we've compared where we are at through wave one, which is through June 30th, which you'll see at the bottom of the table in red, to the prior years and so for the numbers for the prior years, we've done the same time period comparison, you'll see those numbers in green as well as ultimately where we ended up at the end of the year after all the different waves and it looks like we are a little further ahead this year than we have been in years past, both in the school category, as well as in the large school category. You know, even the small mediums, depending on what year you compare it back to.

The intent for sharing this is just -- we track this, we know there is a lag time; that's part of the survey methodology. We have managed those retention limits so just keeping tabs, no real concerns here that we are going to blow through the quota at this point but just keeping track of where we are at when we get those Large Pelagics Survey estimates available.

When it comes to inseason actions regarding our commercial limits, no rest for the weary here. You'll see as we proceeded through the winter fishery as well as the early portions of the summer fishery, some retention limit changes where we started off at one fish in the winter fishery and ultimately, that fishery, even after transfers, made it towards the end of February.

When we reopened the fishery on June 1, we started at three fish which made me a very popular guy amongst a lot of folks. But once we saw the catch rates really start to increase in our rod and reel fishery, right around mid-July

there, we dropped it down to one fish. I'll share some catch information here in just a few slides but ultimately, we shut that fishery down on August 9th.

Also, some interesting dynamics took place this year that we hadn't seen or shall I say, are unprecedented is that the quality of the fish, the volume of the fish, how these fish were cared for, or should I say lack thereof, all led to a number of dealers making their own individual decisions to -- not purchase those fish; there was no place to market them and the quality was just poor.

So something very interesting as far as one is that business decision, and there is no obligation for dealers to purchase fish, which amazingly enough, I probably had about 50 phone calls, having to inform folks about capitalism and that folks are not obligated to buy your crap fish if you opt to not ice anything down other than your beer. Daunting, but it's also very informative of the variety of a constituent that

we are tasked to work with and manage and educate. Not just us as fisheries employees and managers but also you all as well. I mean if I see another bluefin tuna photograph where it is gutted like a trout, I think I'll -- well, I'll just leave it at that.

Anyhow, Harpoon category, as I mentioned, we did a number of different transfers there as far as the retention limits, we maintain them at a two large medium and the regulations currently have them at unlimited giants and that fishery also made it right to around that August 9th and 10th date so both those fisheries closed almost back to back. I think one was Thursday and one was Friday.

As far as some of the landings information pertaining to the Harpoon category, one thing we also track is how many large mediums are being taken versus the giants and we break this down in a number of different ways of percentages of trips, overall landings, what have you. If you all were called the large medium size

class is really intended to account for bycatch, if you will. I.e., small fish being taken but the fishery is designed to target giants and so again, the numbers here, I can get into these in the margins if you want but you'll see that overall the transfers ended up providing that fishery about 100 metric tons this year and the one item that will be entertaining thoughts and discussing and trying to get our minds wrapped around is if you look towards the bottom of the slide, the percent of trips landing at least one bluefin.

So this is where we are kind of looking at that unlimited kind of component of those giants when -- you know, if you go back 10 years, 15 years, 20 years, whether there was a plane or no plane, these values to the right hand where 24 percent of the trips were landing between four and eight fish or 5 percent of the trips were landing 9 plus fish, we had a fair number of double digit trips that -- I mean the fish in New England were very dumb in talking to captains where if they harpooned a fish, the school didn't go down.

Literally, as soon as the fish was in the boat, somebody was able to throw the harpoon again like clockwork and normally you don't see that behavior in the fish. Normally at least they go down -- there is some time spent to relocate them for those fish to come back up so in probably Amendment 13 process, we will be entertaining whether or not some actions are needed here so again, we are not necessarily throwing a lot of fish that it can't properly be cared for, even with well-seasoned captains, what is the right balance to strike -- prolong the fishery as long as you can, trying to optimize its yield but yet not being too constraining given the weather conditions required for that fishery to be prosecuted.

Another item, we are breaking down different harpoon as a gear type now landing. There has been a lot of back and forth of should we, should we not include harpoon in the General category, comments that we get that the harpooners in the General category of tuna, a lot of

recorders of what we opted to do is include this slide here that kind of just shows the breakdown of those individuals that have had successful trips with harpoons as gear types, what categories were they in? How many vessels were there that were successful and ultimately, what are the number of fish that they were able to take?

And so you see the '18 numbers compared to the '19 and obviously when you look at 2019, the harpoon category, a significant jump there which is attributable to those in season transfers and providing those opportunities to be had by that user group.

And again, just another way to split the data as far as the composition of catch, whether they are giants, whether there is large mediums and how many of each of those respective fish were being caught in different trips and again, this is just us really getting into the weeds and trying to figure out where we may want to gravitate to as far as either provide the agency more authority to increase retention limits, either upwards or

downwards and trying to find kind of that sweet spot, knowing that these variables can change from one year to the next so we don't get too locked in in tunnel vision and saying what we observed here in '19 is how it will play out in '20 because we know that rarely repeats itself in any of these bluefin directed fisheries.

And again, if you are more visual in the sense of charts, it's kind of showing the same thing. Kind of how in that Harpoon category, how the catch rates proceeded over the time period of the fishery being open and ultimately kind of where we were taking our actions to provide those additional opportunities via those inseason quota transfers.

Alright, so on to the General category. I'll take a deep breath (takes deep breath). Alright, so, we'll see -- start the winter fishery off here on January through February at one fish limit. As I already mentioned, provided some additional fishing opportunities via transfers from the reserve as well as it's kind of front

loading quota associated with the January and December time periods where we ended up with about 109 metric tons across that time period and so far, that's the highest landings from that January Fishery to date and then close that end of February.

We opened in June. We got about a month and a half of a three fish limit, which equated to about 77 metric tons, at which point, again, as soon as we saw rod and reel landings increase of two and three fish landed, we dropped it to one and as we've seen in other years, at that point, word is getting around, efforts increasing and even though we have a one fish limit, we caught about 200 metric tons in about a month's time period.

Given just the fish availability, the amount of effort, as well as some of the other determination criteria, we elected not to do any sort of transfers into that June through August time period this go around and didn't necessarily really hear one complaint from anybody, which is

extremely rare, in fact, almost unprecedented. But it didn't really make a lot of sense to provide more -- or use more quota, given the conditions in the fishery at that time.

So following the same thing that we did with the Harpoon category, looking at success rates. I know we have talked about this either at scoping meetings, around this table, we have debated the pros and cons of starting at three fish or starting at one, so just providing some data here that when there was the three fish limit, three quarters of the trips just landed the one fish and then between two and three fish, that caught the additional quarter -- or should I say 25 percent of the landings across that time period and then we broke that down to the tonnage as well and this is something that I tend to continue to try to inform folks on as far as starting at a one fish limit doesn't necessarily mean prolonged fishing opportunities later in the year.

A prime example is if you look at the bottom of the slide here. Of those trips that

successfully landed three fish, we got about 8.4 metric tons of landings collectively out those. If you want to combine the 13 metric tons there as well, just to put this into perspective, September 1st, when the fishery opened was a 30 metric ton day so by starting -- or providing those additional opportunities early in the season, because the catch rates are so slow, it really does equate to one additional day, potentially later in the year when you look and we had about a month and a half at those more liberalized retention limits so -- again, open to that discussion but this is just informing where our decision-making stems from. And again, I think you are all pretty familiar with, trying to map out what the catch rates were across time, both in the winter fishery as well as when the -- the summer fishery started off, what the retention limits were there so you'll see that in how the line is either broken up and dotted or different colors, the average catch rates spread across that time and ultimately when the closures or transfers

took place.

As part of the Amendment 13 scope and one item that we realized pretty quickly as we were engaging those dialogues was again, trying to capture this perception of equity and when quotas are allocated and what are fishing opportunities and so one slide -- or one of the many slides that seemed to kind of get the point across is if you look at the pie chart here in the middle, this is the general category broken up by how the quota is allocated by time period and if you look to the right, as well as the left, it ultimately then reflects when the landings had occurred in relationship to how that quota is divvied up.

I think that's -- yes, landings. So when you kind of just look at volume of landings, it actually shows that we are kind of on target as far as staying kind of true to the allocation.

One item that is lost here is when you look at the number of days fished to catch this volume of quota and ultimately, if you use days available to fish as your metric, that's really

where this concern of fishing opportunities comes in where that June through August of say 2018, you know, that may have been almost two and a half months of fishing opportunity but then when you look at September or even that October-November metric, those may be one week long durations and so something we will continue to explore and entertain as we delve further into the A13 process.

As I mentioned earlier, unprecedented conditions were dealers who were actually refusing to receive fish. If you look at the July timeframe, you'll see that at least over the last three years, the lowest average price point was about 4.99 during that timeframe. Again, really questionable quality of fish, a lot of different international variables and so again, the average price per pound doesn't drive the agency's decision-making process. It's not necessarily one of the criteria we are weighing when we are doing opening or closures or transfers but we'd also be less than transparent to say that we are not

looking at this as well. We are hearing about it. It helps just round out our overall awareness of what is transpiring in the fishery and informing some of the business decisions, whether it be on the vessel side or as well as on the dealer's side and then ultimately how that informs our own decision-making processes.

For the Purse Seine fishery, I think you've heard the conversation around this table. For the last number of years, you heard a little bit yesterday in the public comment, that we had the ability to start the fishery between June 1, August 15th that requires an action on the agency to announce a start date. We have not announced the start date in the last number of years essentially because there are no vessels that are currently permitted to use that gear type. Obviously, that's an ongoing discussion with some new ownership of vessels that are trying to navigate the waters of procuring what the agency said are non-transferrable permits so again, something that we will be looking to explore

further in the Amendment 13 process but just to share that, currently that debate continues but there are no active vessels in this fishery currently.

As far as a breakdown of whether fish are coming or going, you'll -- we noticed the last few years -- actually even more than just the last few with this downward trend starting about 2012 of more and more fish staying domestic and so that trend does continue and then we just provided kind of a sum of the average price per pounds so this is information reported to us from the dealers as far as prices being paid to the vessels then ultimately the ex-vessel value based upon what is staying or going. The main intent here is just to show how the fishery and the marketplace is evolving over time as well as the ongoing decisions of how do you develop and whose role it is to support maybe the development of a more domestic market and then ultimately how these fish are then entering that marketplace and how that drives, as well as price and everything else that

goes with the in season management of the fishery itself.

As far as dead discard estimates for 2019 of bluefin tuna, these are still kind of estimated through the Science Center, even though we are collecting information, we haven't transitioned methodologies at this point but those estimates are the exact methodology that we used in the Amendment 7 process and the best available information right now is the 2018 estimate which has us at a 14.6 metric tons. These are the ones that will share up to ICCAT and normally we are able to revise these around the July timeframe and currently, the reported hand gear dead discards that do come through are reporting, we continue to review them where that is user entered data, we continue to struggle that there is a lot of scrubbing of that information where all of a sudden, you can see somebody may have landed a Bluefin tuna, sold that bluefin tuna but all of a sudden, they are also reporting a 92-inch bluefin tuna as a discard but yet the retention limit was

3 at the time.

And so we are looking at the design of the application, the design of the website and trying to figure out how best we can start to reduce these human errors that take a lot of time and effort to then scrub through to saying okay, what is actually a true discard that's been reported that we would then want to account for versus what is just either an error and then properly weigh that data as it informs the overall discards from the directed fishery there.

Overall, reporting requirements, we have touched on them a little bit, they have not changed. 24 hours for the dealers as well as vessels. We have the catch reporting app we touched on as well as the permit. We are seeing improvement, continued improvement here, especially when you look at say the compliance percentage here when it comes to the number of fish being reported, we are about at 72 percent overall. The harpoon category, small user group, easier to get in touch with them.

We are seeing this growth, definitely continue to be room for improvement when you use the metric of the actual fisherman, the permit holder. Again, this gets to some of the diversity that are in our regulated community like I mentioned some folks still under the impression that somebody is obligated to buy their fish, that there is room for continued improvement here, we continue to do outreach but we also continue to collaborate closely with the office of law enforcement and support compliance assistance, and even if that means in penalties and fines, especially when there may be data of individuals landing multiple fish over time, their longevity in the fishery is there but you still don't see the reporting that -- I didn't know any better doesn't hold any water anymore and this will be something along the idea that Steve had mentioned, yesterday, the whole credit card transaction. We are going to be exploring other ways other than just hitting folks with the stick to get compliance, if there are other ways to kind of put

this in front of them, again, trying to proceed with using the carrot versus the stick because ultimately, we genuinely feel that the better information I have, the staff have, the division has, the better we can do our job with a very volatile fishery while sudden changes in decisions may need to be made within 24 hour turnarounds.

The more real information we have, the tighter we can get our own precision in getting those actions done properly. So with that, the adequate presentation is complete. Questions and comments before we get to shortfin?

MR. BROOKS: Thanks Brad very much and just so folks know, in our little time reserve category, we have about eight minutes left for your presentation so take a few questions here. Dewey?

MR. HEMILRIGHT: Thank you. I think last meeting I asked about the U.S. retaining this dead discard in the longline industry and I was wondering if there is any movement there and second of all, in the domestic landings, which is

your charts and different things; it's real good. I was wondering if there is any way, given the popularity of the Wicked Tuna show, if there is any way of segmenting out the price per pound in a separate slide in the future, given that there are three or more dealers buying, maybe that would -- you know, wouldn't have to worry about the confidentiality act, that way folks could see the difference in the domestic landings and the price per pound, given the two different entities, thank you.

MR. McHALE: Yeah, we can definitely look at breaking down, especially that value, whether our fish stayed domestic, exported, we can further refine this and want to do so, again, because some of that gets lost and then you always hear -- if all of a sudden, you know, if all of a sudden there is a slug of fish that comes through that are poor quality, well there may be a 20 or 30 dollar fish in here that gets lost so we can look at further ways to refine it and I know that's been part of some of the ongoing

discussions of how do you tease out this data when it is an open access fishery?

You do have folks that really don't know what they are doing, that may have seen the television show, you know, again, are gutting fish right down the middle. Obviously, they haven't done any homework or reached out to anybody on how to properly care for these fish, that there is a learning curve and how do you then speak and work with that sort of user group when also you have veterans that have been doing this for 30 years that know exactly what they are doing and not lose those unique characteristics of each other's groups so we can work on further refining that information.

MR. BROOKS: Thanks, Brad. Yeah, Dewey?

MR. HEMILRIGHT: Yeah, because folks that watch the show might not think that when they see the price of the tuna that they are not able to afford that price of tuna because it's 30 dollars a pound or something like that so it just gives a better perspective, you know, like hey,

you might able to afford it at 5 dollars a pound or something so it might just help the public with some reality, thank you.

MR. BROOKS: Thanks, let's go to George and then Shana and I see a couple of other guys but I probably won't have time to get to you.

MR. PURMONT: Good morning, Brad, thank you very much for an excellent presentation, especially in regard to Purse Seine. I noticed that we have excellent information concerning exported and domestic landings of bluefin, however we also import bluefin at the same time. Is there any comparative information that you have available that would chart out the imports vis-à-vis our domestic attempts at sale? I would imagine that an imported fish that weighs 100 pound would be easier to market than a 350pound caught domestic fish. Thank you.

MR. McHALE: The quick answer is yes. I don't know if we have any of that information through the review but we have that important information so we could look at that collectively

and I think we have in years past as far as kind of what our domestic consumption is and how much of our U.S. fish are feeding that versus the imports.

I know one other item, given the quality condition of the bluefin tuna this year that we've also been trying to get our minds wrapped around is sometimes it's not even a bluefin to bluefin comparison as far as the mark they are filling but when you have these relatively poor quality bluefin that are coming to the dock, are they really starting to compete with bigeye or yellowfin in our domestic markets?

So that is something that we can include in future presentations of kind of how all that interplay is starting to affect one another.

MR. BROOKS: Shana.

MS. MILLER: That's not working. It's on? Okay. Looking at the breakdown of general category, whether they land 1, 2, or 3 fish. I know for the recreational category, hopefully you get data on the zero-fish days as well. Do you

get those for the General category? Are you seeing any trend in the zero-catch days and then I'll --

MR. McHALE: Unfortunately, currently we don't so we currently do not have an HMS regulation to complete say a comprehensive logbook. The reporting requirements are the report landings and then we turn -- those discard events and so it's very rare that we are getting zero returns, at least in the commercial data, we also then don't have something to verify that information up against, which poses some challenges to assess the accuracy. One area where we may start to gravitate more in that direction, as we talked on yesterday, and I don't know if you were able to hear on the conference line is as we start to gravitate these electronic logbooks, producing, reporting burden, what have you.

For example, the eVTR out of the GARFO region may require all trips to be reported, regardless of catch so I suspect as we start to streamline our avenues to collect information,

those non-catch trips -- now again, it might be difficult to say was that a tuna trip or a groundfish trip or what have you but I think we are probably going to start to get more of that information as well as -- I think we mentioned yesterday is the HMS division actually looking on whether or not we would want to have a requirement to do some sort of a logbook. Currently we just have the landing reports and -- but as some of these streamlining and electronic reporting technologies evolve, if we were then to say follow suit of some of the other regional offices in saying we are going to require a report, the avenue may already exist but then that might be an opportunity to kind of get at that catch per unit effort dynamic that currently is missing in our data collection.

MS. MILLER: Do you compile those data for the charter boat/head boat fishery for -- because they get the phone calls asking whether they fished that week, what their target was. Do you look at those data for zero returns or no?

MR. McHALE: Yup, so for-hire fleets, as well as some of the General category of vessels that are being either intercepted by the Large Pelagics Survey or being captured in the telephone survey, we will get that data. We just know it's a subsample so that's something that we can look at and provide that information.

MS. MILLER: I'll try not to send you another data request, don't worry.

MR. McHALE: You know who Nick is now.

MS. MILLER: That's right, I met him. And then just to comment, looking at the pricing, obviously there were not the greatest quality of a lot of the fish this year but you know, the prices are down, also because globally the bluefin catching has gone up so much, not just here, it hasn't gone up so much but in the eastern Atlantic, it's gone up a lot.

Pacific bluefin has gone up a lot, southern bluefin has gone up as well and you know, Japan, economic studies -- the global bluefin market can only handle so much bluefin. They

don't care whether they're Atlantic, Pacific or Southern and you know, when it comes to -- and this is a little bit international, when it comes to looking at target reference points for bluefin in the coming years, this pricing that we are struggling with this year should be taken into account, that socioeconomic piece of the target reference points, thanks.

MR. BROOKS: Thanks, Shana. I want to invite the enforcement folks to start coming up this way. Walter, you have a quick piece of information before the then and for the folks whose cards are up, we are going to have to push on but I would encourage you to connect with Brad when we adjourn at 12.

MR. GOLET: To George's point, SAFE report 2018, page 160 will give the imports, exports, Pacific and Atlantic bluefin tuna.

MR. BROOKS: Great. Thank you and Brad, thank you very much and I will shift over to enforcement. So we are going to hear, I believe from Katie Moore, Wynn Carney and Loren Remsberg.

And we've got Coast Guard up first I think.

MS. REMSBERG: I am on the phone.

MR. BROOKS: Okay. And planning to present or not?

MS. REMSBERG: No.

MR. BROOKS: Okay.

MS. REMSBERG: But I can answer questions as needed.

MR. BROOKS: Okay, great, thanks.

MS. MOORE: Good morning, Katie Moore, U.S. Coast Guard, I work for the Atlantic area command so we deal with everything east of the Rockies. I am the Fisheries Program Manager and what I wanted to share today was some of our efforts.

It's broken up by our domestic efforts, both in the boardings and the outcomes, then focusing on our foreign fishing vessel activities and our interdictions and then talking about policy. This presentation is available online.

I usually tell you how much time we spent towards fisheries. This is across all

fisheries not just HMS. I just want to let you know how it compares to last year at this time. We are down by about 22 percent and that's in all categories, air and surface assets. Coast Guard works for the Department of Homeland Security. The Fisheries missions account for two out of the eleven missions so we are essentially competing with nine other missions to include drugs, migrant interdictions and stuff like hurricane so --

Now, in terms of HMS boardings, I still think that we have a healthy number compared to historical years so through August, we had a total of 317 HMS boardings. You can see here how it's broken down by different regions and components of the fishery so the majority of the boardings, we have had in the mid-Atlantic but we've also had a healthy number in the Northeast. Out of those boardings, the results that we had in terms of significant violations were 13 in the time period since May, our last report.

It's been broken down pretty equally between district one, which is the northeast and

our Gulf of Mexico. The northeast violations tend to be permit violations, targeting bluefin tuna, district 8, there were more shark violations and in district 5, our Mid-Atlantic district, they tend to be permit violations associated with tuna so I tried to tell you here where the interaction occurred, what region, if it was commercial and the type of violation so these violations are what Coast Guard issues. We provide the case packages to NOAA. NOAA then considers going forward with them and whether or not there is going to be a fine.

So I do want to apologize in the mid-Atlantic, the Coast Guard issued a press release that said that there were five violations by commercial fishing vessels. They weren't commercial fishing vessels and they were actually recreational vessels and this was not coordinated with NOAA office of law enforcement so our intentions are to have accurate press releases when they are released in the future and coordinated with our partner agencies. Sorry that

did not occur and there was some confusion in both wreck and commercial industries were not pleased, understandably.

So we have had a lot of activity continue to have HMS all components being a high precedent fishery so we actively try to board all components of the fishery. We have heard your concerns about potential non-compliance and I hope that you know that we are taking that seriously.

So in terms of the foreign fishing vessel issue that we have along our U.S.-Mexican border that still is pretty active. Now, in terms of the number of detections that we've had, that has decreased. I can't tell you that the threat itself has decreased but our presence on the border has remained constant.

Three different components of this. Detections means either we see the fishing vessel actively fishing or we see their gear in the water, no fishing vessel so that's a detection. Now an interception is when we have a Coast Guard asset on scene in pursuit so you can see here if

we gear, there is nothing to pursue. We still haul the gear, take it, dispose of it but the interdictions are when we actually stop the vessel and people are onboard, we work with CBP and we repatriate those individuals back to Mexico.

The gear is taken. If there is any catch onboard, that is released at sea if it's alive otherwise we take it and we have to use it for case evidence.

Now there have been fewer detections this year, which is great but the bigger thing is our interdiction rates are the highest that we've ever had so I take that as the Mexicans are stopping so we are actually getting them but what I think you want to know is let's not have this threat to begin with so what we have detected in terms of the gear and the catch onboard during these two months, it's longline, it's been predominantly longline and gillnet and we had two instances where there were HMS species onboard.

Sometimes these interdictions are when the vessels have not yet caught any species. It's

just bait on board but I'd like to tell you what we find. Now if the ideal -- if I could tell you what species they were, we don't always get that and then sometimes we don't always get it right but this is the level of detail we have for those interactions.

Now in terms of what are we doing to try to combat the threats that exist on the water, we are actively working with NOAA and I think Brad gave you a good summary yesterday about the permitting process and where we stand in terms of linking that with the Coast Guard safety decals.

Some of you might be aware that this issue is not limited to HMS. There was actually interest in the Mid-Atlantic Fisheries Management Council for tilefish permits to have -- to display documentation that they have a (inaudible) safety decal and there was an official letter that was sent to GARFO, the Greater Atlantic Region and there was a response back in May so we heard you in this forum; we've also heard you in the mid-Atlantic forum and I don't think there is

anything necessarily inherently unique with this fishery. I think people want commercial fishermen to be compliant, recreational fishermen to be compliant with safety rules as well as the permitting within NOAA.

So, party line is we continue to partner on this but if you want to know more about the response from GARFO, they did go into more details about an automated system, would be ideal because it takes a lot of time to cross check the two so just FYI, it's not just an easy button. Sometimes we issue a decal and it takes up to 20 days before Coast Guard even enters that into our own system so for NOAA to instantaneously know what vessels have decals and to verify that information if it's provided by you, it's more than just creating an app for a linkage between the two systems so we continue to work together, not just looking at HMS.

HMS in fiscal year 20, that will continue to be a high precedence fishery for the Coast Guard in all components of the fishery, rec,

charter, as well as commercial and we divide our fisheries by high precedence and low precedence and that is based on the status of the species, political factors, bycatch, enforceability at sea and so HMS continues to be a high precedence fishery.

So, we stay active with ICCAT and we are looking forward to our meeting and continuing to move forward with the voluntary at sea observer -- I am sorry, voluntary at sea inspector exchanges. Observer safety has gotten some more traction so we are hopeful that we will go further and we are also working on updating vessel sighting protocols so that at sea inspector exchange got some traction with Canada so we are considering what we could do under ICCAT.

We are already participating with Canada under the NAFO in the northeast and so we are looking at professional exchange opportunities there for ICCAT. We are still active in the Gulf of Guinea so Coast Guard actually had a cutter deployed off of Western Africa this Spring. We

worked with Navy to have overflights to figure out what fisheries -- what's active in that region, who is fishing, do those host nations, permitting nations even know what's out there along their coast? And the partners that we worked with this year are as listed.

We also continue to look at the Mexican issue. Coast Guard doesn't love the number of repeat offenders that we have had down there and so we are trying to look and continue to discuss are we using everything in our toolbox. Is it just putting a presence on the water? Are there diplomatic ways of doing business? Are there other opportunities for prosecution that we have not yet explored so we continue to work interagency to figure out what we can do to address that threat.

So as you know, just having Coast Guard on the water doesn't stop it from happening. So if you have any questions, let me know. If anyone perceives that there is any non-compliance out there, please share information with us. That

does help us even if it's not an individual fishing vessel, just to give us some climate where there may be potential non-compliance, we take it into account so thank you for those who are passing that information to us.

MR. BROOKS: Thanks, Katie. Wynn, why don't you walk through your presentation and then we'll open it up to questions.

MR. CARNEY: Okay, thanks so I didn't bring a presentation but what we do have is we have a website of our weekly highlights so if you go to our website -- okay, sorry. We'll bring it up in just a second but you can see where our website is so if you have any questions about what we are doing with enforcement, you can go to that website and can actually see different highlights and weekly updates from our enforcement and this is on our -- if you just google NOAA office of law enforcement and go to enforcement actions then our different highlights from different weeks will come up and you can see the highlights from May 17th, May 10th and so forth. They get updated --

that's a long time ago but they get updated sometime.

If you go to the top, our -- it tells about the Carlos Rafael case civil suit. So that is recently; that was August the 19th but as far as what we are doing, we are still partnering with the Coast Guard. We are partnering with our state partners which is mostly all of the state agencies from Maine all the way to Texas and -- minus North Carolina and partner with those states to enforce HMS regulations.

Sometimes we have saturated patrols, most recently we had a saturation off of New York and New Jersey targeting bluefin tuna -- or vessels targeting Bluefin tuna.

From that, we found some non-reporting violations and some permanent violations offshore. Down to the south and the Gulf of Mexico -- some recent violations we found have been pelagic wall liners retaining swordfish, not in proper form.

So our officers down in Louisiana were handling some of those instances as well. So like

Katie said, if you have any questions let us know. We still are out enforcing every day and trying to make the best we can with compliance assistance as with what Brad was talking about earlier using the carrot and not the stick so if you have any questions, we'll be free to answer them.

MR. BROOKS: Great, thanks. Let's go to Sonja then David.

MS. FORDHAM: Thank you. Sonja Fordham, Shark Advocates. My question is for you. You mentioned the law enforcement capacity in Africa and the partners for 2019. Can you just tell us a little bit about how long those partnerships last and how those countries are selected and if there is a component with (inaudible)? I am just curious. Yeah.

MS. MOORE: So, our presence there has been primarily through AMLEP so it's a DOD initiative out there for stabilizing the country and that has focused on multiple missions and one of that has provided benefits to fisheries so the goal there is to build law enforcement capacity so

those host nations can enforce their own regulations and in doing that, it is looking at law enforcement broadly.

Most of their targets that they have done in the water have been fishing vessels so there is an MOA that has been developed with the host nations to, you know, say what we bring to the table. Do we pay for the gas, they bring the people? Do we bring the ship or do we use those ships? So it has evolved over the years and each different country has a different level capacity in what they are willing and capable of bringing to the table so in terms of what we are doing is we work with DOD so it's not Coast Guard independently selecting what countries.

So what I try to do is to say what countries would be very helpful for us from a fisheries perspective but if there is a drug issue, that might be a higher priority for DOD so I can't speak towards NOAA's efforts but I know they have been on scene trying to help build capacity in some of these countries which has

helped in our partnerships here.

Now the overflights we did were not specifically for fisheries in terms of "hey, go look in this area. This is what we want you to do." It was more "We are already going to fly; do you want to be onboard?" We said yes and this is what we want to look at so I wouldn't say it's always built from the onset with fisheries in mind or being wholly informed with that goal but I'll take whatever I can get.

So if you have some thoughts that there might be some strategic partnerships that we might want to consider, we are open to that but it is also trying to pay it back on with DOD and what they are trying to do so --

MR. BROOKS: Thanks, Katie. David then up to Mike.

MR. SCHALIT: Thanks Wynn and Katie for this presentation. I am just going to make reference to something we are all familiar with the U.S. Coast Guard decided a few years ago that every vessel that is fishing commercially will be

required to submit to a commercial fishing vessel inspection and one of our sectors of our fishery is the sort of overlap between angler and commercial and that is the charter/headboat sector so we created this law which -- with permit actually, which enables some charter/headboat vessels to op --- from time to time -- to operate in -- to actually operate in the commercial fishery under general category rules and other vessels don't opt for this so what is created is this body of vessels that are in this category or may need to comply or not; we are not sure.

It all comes down to -- in the end, what we are looking for is kind of an automated system -- a somewhat automated system whereby when a permit is taken out, initially every year, they would be -- the person taking out the permit would be obligated to enter the unique number, sticker number from the commercial fishing vessel sticker that is adhered to the vessel at the time of successful inspection and I know that you are -- you are discussing this with Brad McHale in

Gloucester and you know, you were deeply in conversation with him about this.

I just want you to know that the 500,000 people that I represent really want this in place. It's extremely -- it's a priority for us and it's a very very important priority so anything -- that's -- I think that's the message I want to convey today.

MR. BROOKS: Thanks. Umm, Mike.

MR. PIERDINOCK: On page 12, with the ICCAT inspections, I am just curious of what kind of compliance you're seeing or not seeing in those areas and are these surprise inspections or do you have to tell the government that you are working with that you are going to go on the boat which could jeopardize the secrecy of that because if I recall a few years ago, you had concerns with that with Mexico and was just interested in whether -- and out and off the coast of Africa, how that works and what kind of compliance or not compliance you are seeing. Thanks.

MS. MOORE: So what we have -- this is a

partnership where we are assisting those host nations enforcing their own regulations so they are using their authorities so they are on board. It is not done independently just with U.S. People, U.S. assets because we are not using U.S. Authorities so it's -- we are assisting those host countries and enforcing their law so it's not a surprise to the host nation.

In terms of notice to the fishing vessels, I don't know whether or not those individual fishing vessels are hugely aware of our presence in the OP, though it is on open source -- it's been multiple years in existence. Now in terms of the non-compliance that is out there, we had about 19 boardings that happened this year and the violations have not been typically grossly disturbing, I would say. I think it's -- we did early on have some issues -- there was a shark case that was about 10 years ago, that was pretty substantial but recently it's been more like permitting issue but it hasn't been gross amount of catches and overages that you might -- that you

consider might be happening. That's not what we have been detecting.

Now our presence on the water might be enough deterrents that those people doing gross violations might scoot off. That's why we wanted to have the air component. But with an air component, you are just seeing fishing vessel locations, not necessarily discerning what violations may be occurring so it's one of those where we are piecemeal getting to know better what's happening out there so opportunities for sharing AIS information, making sure these countries are working together, no fishing is happening, I think that's evolving.

We actually had one situation where two countries have an agreement that if this host nation's fishing vessels go into this host nation's water, they are not to be boarded so there are some nuances just happening in Africa that we are trying to be respectful of but make sure at the same time it's not the wild west out there. So there were no gross violations that we

detected this year.

MR. BROOKS: Thanks, Katie. Dewey.

MR. HEMILRIGHT: I wonder if the Coast Guard has any response to a letter that was put out or a notice from the FCC about the use of AIS buoys to mark the fishing gear and it seems like they've taken a stance that it's illegal and they were going to impose fines of up to 17,500 dollars. The criticalness of being able to use that is -- one it just helps you find your gear, location, safety of your gear and I was wondering if the Coast Guard had any thoughts on that given that -- and the gear is also marked, the label of the buoy is marked so you know it's not a vessel but does the Coast Guard have any response to that? Because it would be good if fisherman could continue to use that and label on that buoy. I think it would help all the way around with protective resources and different ways of tracking your gear, it's very effective.

MS. MOORE: So thank you. I had, through this team gotten some information that

that was being used in the fishery potentially being considered so what we have -- we have an AIS program manager and when I reached out to ask is that legal, not illegal, we do have information that states what is legal use of AIS.

I believe it's an FCC broadcast frequency issue not necessarily a Coast Guard determination but what I'll do is I'll get more information and share it with this group so what I had researched previously was not legal so if that has changed, I can give you a better status update but I believe there were devices on open market that people thought were likely compliant and legal and FCC approved which weren't so it might have not been intent to be non-compliant, they just probably thought it's legal because you could buy it.

So let me give you an update on it but last I checked, they were not legal. I hear where you are coming from, I like to know where gear is, safety issues like you identified but there might be larger issues in terms of air frequency that is

the determining factor so I'll work through Peter, Karyl, to see how we can get it back to the group or just update my presentation with a link but I do hear you on how it benefits the fishery and thank you for that perspective.

MR. BROOKS: You would think being on the fourth floor, we'd somehow avoid leaf blowers but -- okay, good, thanks. Let me just see if there is any AP members on the phone who have any questions or comments for Katie or Wynn and again, operator, if you could open the line, this is for AP members and Greg DiDimenico, I understand you may have a comment but I'll ask you to hold that into a public comment but AP members, any questions or comments.

OPERATOR: All lines are open.

MR. BROOKS: Thanks. Okay, thank you, operator. At this point, thanks Katie, thanks Wynn. Let's -- I think we are going to get Enric on the phone. Enric, are you there and can you hear me? And operator if you could open up -- are you there Enric?

MR. CORTES: Can you hear me?

MR. BROOKS: Yes. Speak again though.

MR. CORTES: Yes, I am here.

MR. BROOKS: Okay, much better. Alright, and we want to hand it off to you and let you give us just a quick overview of the shortfin mako assessment and just know there is a little competition and noise from outside. We are trying to deal with it but if you could -- just as loudly as you can speak would be helpful here.

MR. CORTES: Okay.

MR. BROOKS: Okay, all yours. Hang on one second, we are just getting the presentation loaded.

(Crosstalk in the background)(Laughter)

MR. CORTES: Alright.

MR. BROOKS: Okay.

MR. CORTES: Do I have control?

MR. BROOKS: We think you do. You have control and you have 10 minutes. Actually let me just quick check. Public comment, how much public

comment do we have? None? Except for Greg.

MR. CORTES: I don't see the presentation.

MR. BROOKS: Yeah, we don't see it either.

MR. CORTES: Do you see what I have on the screen now?

MR. BROOKS: No. I would say if this doesn't work, can you just talk about it and you can -- we'll operate it from here, Enric, and you can just tell us when to advance each slide, okay?

MR. CORTES: Yeah, will do.

MR. BROOKS: Perfect, thanks. Just give us a second. Okay, all good. It's all yours Enric.

MR. CORTES: Okay, I don't see the screen.

MR. BROOKS: We've come full circle.

MR. CORTES: I am not seeing anything.

MR. BROOKS: Yeah, I know, we are still hacking away at it here. Give us a second. We don't hear the little bursts? He thinks we don't

hear the little bursts? Maybe we can have Enric start the presentation without a visual link for now? Because time is running short. Enric, we've got the presentation up online.

MR. CORTES: Okay.

MR. BROOKS: So you just work off of your screen and tell us when to advance and for webinar participants, we'll keep trying to get this online for you to see as well but for now, please just follow Enric verbally.

MR. CORTES: Okay, so you have the updated version. Let's move to the second overview. So what I wanted to do very quickly is summarize the results of the 2017 stock assessment because in 2019, we did not do an assessment. What we did was (inaudible) of projections using one of the models. So if you move to the next slide where it says Catches and CPV.

Potentially, very quickly, we can see that a couple of catch streams, the augmented catches that we get from ICCAT, which have received inputs from different countries and have

been reconstructed, and then we also considered another catch series based on ratios of sharks to target species. Just to say that and for the north plant on the top of that graph, if you see it, the C1 is a task 1 catch series, the C2 is the series based on resource and it was of a larger magnitude.

In terms of CPUEs, float to the right. We have CPUEs from essentially five countries and very quickly all I want to point out is that they coincided, the trends were similar which is not always the case because we always ended up with conflicting trends so there was a decrease initially and then a recovery that is what we were seeing in the last stock assessment in 2012 but then since then all the instances decreased through the last year of data which was the 2015 assessment.

Move to the next slide which is Data Input: Length Composition. Very quickly just to mention that all the nations or a number of the nations -- to make a long story short, we have

assured research and data collection programs and we have been -- all the partners have been contributing data so this represents, if you can see it on the left, the information from different observer programs, information that's actually not housed the ICCAT but that was provided for the sole intent of doing this assessment and essentially, the part to the right with the comment on the left shows the length compositions of a different fleet and I just want to point out that most of the animals caught are immature.

If you move to the next slide, that's just the age and growth that was also part of the shark research plan and so there will be produced two new age and growth curves, the lower curve is for females which are smaller and achieve sexual maturity much later than males.

We go to the next slide, essentially this is the combined -- the ensemble result of the different models that were used. We used production methodologies -- Greg went through one of them, we also used another slightly different

approach called BSP2JAGS and if you see that plot on the left, you see 9 points. These are the medians of the different models and the cloud of individual assimilations but the one that's more to the right is the result of the SS -- the stock synthesis model that Craig described earlier as well. And essentially, the story was that the plot of points, essentially 90 percent of the density was in the bed area with overfished and overfishing and only 10 percent was overfished or with overfishing.

So at the time we did projections with the BSP2JAGS, and just very quickly, I just want to point out that you needed to reduce the TAC catches to 1000 pounds or less for the population to stop declining. In terms of the Kobe II Matrix that Craig also showed you before, essentially, the deal here was that with a catch of 1000 tons, that we identified, the probability of being in Kobe -- I hope that you have advanced to the next slide, the Kobe II Risk Matrix.

So the probability of being in the Kobe

III zone would only be 25 percent by 2040 but to stop overfishing and start rebuilding, the continental catch should be reduced to 500 pounds or less. This would achieve the goal of stopping overfishing in 2018 with a 75 probability but it only has a 35 percent probability of rebuilding the stock by 2040. So only at zero and no catch would reveal the stock by 2040 with a 54 percent probability.

Okay, move on to the next one. So these are the results of the updated stock projections.

Move on to the next one. So the issue with the projections we undertook with the production model in 2017 that I just showed you is that the fisher -- because the fishery focuses mainly on juvenile and multi-production models, as it says here, it's only tracking juvenile abundance so the projections are not informative about trends in the mature population which we would like well behind the trends in the exploitable population by 10 years or more. 10 years or more meaning the age -- the time it takes

for these animals to reach maturity and contribute to the population, contribute recruits.

The age of maturity is around eight years for females and like 18 or more for female -- for males and -- but in contrast, stock synthesis -- reconstruction model can incorporate those necessary timelines that go by maturity and the selectivity of the stock.

Next slide. Okay, so if you recall the picture with the ensemble model that we showed you, we had SS3, one SS3 run and that was SS3 Run 3 which is what we used to determine stock status along with the other production models. However, although another SS run called SS Run 1 was not used, we decided it was important to those projections with this other run because it incorporated another hypothesis about the productivity of the stock, mainly the stock recruit relationship and this was important because it was consistent with some of the production model in terms of productivity.

But essentially these SS Run 1 provides

a more optimistic picture of the stock. So what we did was use both SS 3 -- the two SS runs, runs 3 and Run 1 so incorporating that axis of uncertainty in terms of productivity.

If you move to the next slide. We combined -- you can see here on the left Run 1 and on the right Run 3. As you see, Run 1 is more optimistic in terms of, you know, response of the stock to different type levels than Run 3 on the right.

Move to the next slide, please. And then this is just the combined results of the projections combining Runs 1 and 3 but what does that mean?

We move to the next slide. This is the Kobe II Matrix again. I did mention before the top panel is the probability of overfishing, middle, the probability of overfished and then the bottom is the combined probability of both.

So, what we have in this case with this new projection that we believe are more indicative of the status of the stock of -- what happened to

the stock, is essentially a zero TAC would allow this stuff to be rebuild and without overfishing so in the green quadrant here of the Kobe plot. By 2045 with a 53 percent probability but regardless of the tax, and that includes a zero tax, the stock will continue to decline until 2035 but you see the stock, the probability does not start increasing until after 2035.

A TAC of 500 tons, and this includes dead discards right away, is only a 52 percent probability of rebuilding the stock to levels above SSFMSY and below FMSY in 2070 as I am pointing out here.

But to be in the green quadrant of the Kobe plot with at least a 60 percent probability, you would have to reduce that TAC to 300 tons.

Obviously lower TACS achieve rebuilding in shorter times and a TAC of 700 tons would end overfishing immediately with a 57 percent probability, however, that TAC would only have a 41 percent probability of rebuilding the stock by 2070.

So very quickly, next slide. Essentially, and again, I am presenting this like I said at the beginning as rapporteur of the stock species group so I am just here relaying what was, including the report, and what the collective result and advice was from the shark species group. All this still has to go through the commission so it remains to be seen what it would be but essentially what we said is that the stock synthesis projections essentially show that there is a long lifetime between management measures that are implemented and when the stock size starts to rebuild so it's important to start taking action immediately.

Next. So this I will say very briefly and the people who will attend the next meeting of the advisory committee will go into more detail but essentially, we investigated through projections several of the recommendations of the provisions that were -- and I kept recommendation 1708 so this included looking at alternative TACs, you have already sent in combination or not with

side limits. Also, like release measure so we did that (inaudible) with stock synthesis and with these two other decisions support to -- or going to detail at another time. Can you move to the next slide please?

So essentially, the group examined using the SS projections the combined effect of size limits and TACs and the results indicated that yes, hypothetically, a minimum size regulation that is applied to the whole fishery could be a useful tool to increase the speed of recovery and the management by TAC but that is provided that mortality is low because what we found is that the deterministic projections that we ran different TACs found that the SSF would not reach the MSY level until 2070 even with a TAC of 0.

Next slide please. We also note that live release by changing the level of F in the projections and again live release management measures by themselves are unlikely to be sufficient to rebuild the stock to the target level. It could be a way to reduce F only these

kind of mortality rates are low as well but other management measures such as reduction of (inaudible) time, time closures and good practice provisions are also needed.

Next slide. So the DST projections, as I said is a different tool that allows us to look at projections from the stock synthesis model and allows us to adjust size limits, fraction of the total catch release and fractions of the (inaudible) that die. Essentially the gist of it, the result is that (inaudible) limits and other strategies to release live sharks must be accompanied by a reduction of retained catch. So these are, that's essentially my short presentation now and I will get into more details for the advisory so the report of what we did, the shortfin mako assessment in 2017 and the 2019 projections investigation of some of the measures. I kept recommendation 17 away.

MR. BROOKS: Thanks, Enric, appreciate that very much and I know we sort of threw that at you at the last minute so I appreciate it. We

have time probably for a question before we move to public comment. Bob?

MR. HEUTER: Thanks, Bennett. Hi, Enric, it's Bob. Bob Heuter, can you hear me?

MR. CORTES: Yeah.

MR. HEUTER: I am interested in whether -- or how the north Atlantic and south Atlantic components are being treated in these analyses? Is this being treated as a single stock and I note that on page 4 of your presentation, it looks like the south Atlantic animals are larger. Plus, when you look at Casey tagging data, 30 years of tagging data, every single recapture of a mako in the north Atlantic -- when it was tagged in the north Atlantic was recaptured in the north Atlantic. I guess the genetic evidence is weak for different populations so how is that being treated and if in fact these are two different stocks or two different populations, then how might that affect the overall results?

MR. CORTES: Yeah, so I just got this right here, the north Atlantic stock so we

assessed two separate stocks, north and south and in the next presentation, I will give you more results ongoing work that we are doing with Japanese colleagues on genetics but essentially for the assessment of the time we did the assessment, we considered two stocks, the north and the south and I just presented results for the north here.

MR. BROOKS: Thanks, Enric. Sonja.

MR. CORTES: The results for the south are available in the ICCAT assessment report and the situation was not as bleak but we did not conduct projections for the south Atlantic.

MR. BROOKS: Thanks, Enric. We are going to have one more question here. Sonja.

MS. FORDHAM: Sonja Fordham, Shark Advocates. Sorry, it's not a question. It's a clarification. Just, I appreciate that Enric is going to present more later but I just wanted to now mention that taking into account all that he went through, the group in May of this year did underscore -- they made management recommendations

which was a ban on retention or no retention policy. I know we will probably go over that for ICCAT but I think it's important for domestic regulations too. Thank you.

MR. BROOKS: Thanks, Sonja and Enric again thanks for sharing this with us.

MR. CORTES: Sorry for speaking so quick.

MR. BROOKS: No, that was just was we needed so thank you. Alright, let's move to public comment and is there anyone in the room who wants to make any public comment at this time?

Okay, our webinar participants, this would be your moment for any public comments and operator, if you could make sure that all the lines are open, that would be helpful.

OPERATOR: All lines are open.

MR. BROOKS: Thanks. Greg, are you there and still wanting to make a comment?

MR. DiDIMENICO: I am and I and I really will make it brief.

MR. BROOKS: Go for it.

MR. DiDAMINICO: This question pertains to just really one topic, the overall issue between licensing and Coast Guard permits et cetera, et cetera. I know I've asked for a lot over the last couple of years and I do appreciate the progress you've made and the one question I had on how to make some immediate progress is can we at least ensure that during the online permitting process, that someone's documentation number a. Is authentic and then b. Can we ensure that once someone receives this permit, that their documentation numbers are pre-displayed on the hull like it is for every other commercial fishing vessel.

That, I think is something that can be done relatively easily. Again -- I mean I can say that because I am not the person tasked with it but I understand the limitations of all the other permitting issues but this one, from an enforcement standpoint and I think just from compliance and a realistic on the water issue, at least that someone has a permit to sell, they

really really need to have a dealer number on their hull, clearly displayed as it should be by law. So I was hoping we could get some clarity on whether or not that's going to happen or can we please make sure that that is small in terms that could happen. Thank you.

MR. BROOKS: Thanks, Greg. Folks here have taken note of the request and will consider that and obviously update the team on the ability to do that. Thanks. Any other public comment on the webinar or again in the room at this point? Glen, I keep looking your way but I know, it's okay. It's breaking my heart here.

MR. DELANEY: I'll save it for the ICCAT.

MR. BROOKS: Okay. Alright then, in that case, let's shift it to -- oh Marcos, please.

MR. HANKE: Very quick for the Caribbean issues. I am sorry to be late here but many fishermen requested this of me. Thanks you Karyl for the email that you sent clarifying about the Cuban dogfish and the (inaudible). Senior to the

email, like a pamphlet or educational little material, something that is synthesized and very clear that we can distribute to the enforcements in Puerto Rico and to the fishermen how to follow the rules and regulations on that. I really appreciate that. It would be very handy. Actually I was just corresponding to Raimundo. I think he would agree with me that it is important to gather material to distribute to educate the fishermen about it.

MS. BREWSTER-GEISZ: That's a great idea and we can work with you to make that happen.

MR. BROOKS: Great, thanks, Marcos. Okay, then I think we want to just shift to wrapping up and next steps and Randy, I'll hand it over to you.

MR. BLANKINSHIP: Alright, thanks and thank you everyone for a great meeting. This has been very helpful and informative in a lot of ways. We have covered, in a day and a half, a lot of ground and we have certainly heard a lot of really good suggestions and ideas, a lot of good

questions and we have been able to exchange, you know, a lot of information here in both directions and so I really appreciate your time. We'll have the wrap up presentation here, which, once again, I have not seen everything in it. It is not, once again, the full out, full meal deal, you know, detailed presentation we've had sometimes in past meetings.

This is a very condensed version. It just hits highlights on topics. We will be -- staff are working to summarize key points that we heard and that more detailed presentation will be posted on the website probably in about a week or so and so be on the lookout for that and we'll look forward to hearing any feedback that you all have for that once it is available.

So, these -- you know, we did talk about a lot of things related to these major -- again with the default forwarding every five seconds. I love templates.

MR. BROOKS: Let me fix it. I think I can fix it.

MR. BLANKINSHIP: So I'll keep talking. We had just a couple of key things that we heard on some of those major topics and that we want to remind you about as well including on the recent activities and rulemakings that we have going on is the current public comment period on bluefin tuna pelagic longline area based and weak hook proposed rule. That comment period once again ends September 30th.

We spent some time talking about Amendment 12 -- sorry, it's not obeying your commands, Pete. Amendment 12 and that is in scoping right now and that comment period lasts through November 4th. On amendment 13, we heard a lot of input on this and among all of that input, a couple of things there. We heard a lot on domestic bluefin tuna allocation. We heard some input on Purse Seine category and the status of that moving forward.

We heard also about regional boundaries for subquotas among many things that we heard there. Once again, not trying to capture

everything that we heard here. Amendment 14, we had questions -- while we had for a lot of information shared there and then the comments that we heard back weren't necessarily specifically about things that are in Amendment 14 but we did have a really good productive discussion.

We had some questions seeking clarification about shark management domestically versus ICCAT measurement measures that consider sharks as bycatch species and of course, recognizing that the ICCAT convention amendment negotiations are ongoing.

In that discussion, we also heard about the need for more funding for shark assessments and also discussion of the Caribbean Shark Management issues especially associated with the Caribbean small boat permit that's valid in the U.S. Caribbean. On the subject of data collection for spatial management of SMH species, we heard the request for summary of funding sources for research and that is something that we

provided before and I think the last couple of meetings, we haven't updated that but we can certainly look to update that information and make it available.

On the subject of shark population and depredation issues which was a very good discussion, I think, and very interesting. We certainly had discussion on how to go about that data collection, including obtaining good species identification, the need to characterize the problem and mitigate impacts to borrow the phrasing from Marcus Drymon.

Also, on the general category cost earnings, we got the presentation on preliminary data there and heard several excellent suggestions from you all that Cliff and George can continue to think about as they work on finalizing the report and the in an HMS recreational roundtable, we heard a lot of really good snippets of information, good subjects, good ideas, and suggestions. Some of them include improvements for recreational reporting, survey improvements,

education and outreach on regulations and ideas there. Ideas of the management of the marlin 250 limit and discussion of fishing for prohibited sharks.

So once again, just a quick overview of some major things there. Look for that more detailed presentation when it's available.

So moving along, once again, a noteworthy date upcoming with the pelagic longline bluefin tuna area based and weak hook proposed rule is the additional public hearing that we've announced in Gloucester, Massachusetts on September 19th, we'll keep that in mind and then reminders for you all related to travel to this meeting, please complete the Google travel voucher form by September 13th. The link is provided here. Email receipts to Pete Cooper at the email address provided here and then once again the ICCAT advisory committee members work with VIMS for travel, per the instructions that you've already received on that.

If you would, please return your table

tents and name badges. This will be to the table up front. Pete, is that right? Yup, to the table up front and if you would, please complete your advisory panel satisfaction survey and we look forward to seeing you in the Spring to continue our discussions and I want to offer a huge thank you to you all for coming once again, for taking the time to be here. Thank you to Bennett for doing such a great job and to the HMS management division staff for doing such a fantastic job. It is truly amazing all the things that are going on behind the scenes that you all don't know about that they are working on and they have done such a great job preparing for this and thanks to Karyl for sitting up here periodically and presiding over the meeting which gave me a chance to sit to the side and think about how things look and what you all are saying from a different perspective. And that concludes my presentation. Anything else?

(Clapping)

MR. BROOKS: Thanks. Any -- yeah, Tom?

MR. WARREN: Just one quick announcement. Somebody left an iPad or tablet on the table outside. I am not sure whether that was intentional.

MR. BROOKS: Okay. David?

MR. SCHALIT: Just a quick question.

MR. BROOKS: Microphone, please.

MR. SCHALIT: September 30 is the deadline for public comment, written comment on the spatial weak hook and another -- is there another initiative that is also looking for public comment on that same deadline or is that the only one?

MR. BROOKS: No, I think --

MR. BLANKINSHIP: No, that's the only one. There is the scoping for amendment 12 which is in November.

MR. SCHALIT: Right. Thank you.

MR. BROOKS: Any other final comments? Reflections from around the table? If not, then I'll just add my thanks to everyone for a very good meeting here and thanks for those of you who

had to navigate uncertainty about a hurricane for making your way here. Thanks everybody, we'll see you in the Spring.

(Whereupon, at 11:52 a.m., the PROCEEDINGS were adjourned.)

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CERTIFICATE OF NOTARY PUBLIC

STATE OF MARYLAND

I, Mark Mahoney, notary public in and for the State of Maryland, do hereby certify that the forgoing PROCEEDING was duly recorded and thereafter reduced to print under my direction; that the witnesses were sworn to tell the truth under penalty of perjury; that said transcript is a true record of the testimony given by witnesses; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this proceeding was called; and, furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

(Signature and Seal on File)

Notary Public, in and for the State of Maryland

My Commission Expires: June 7, 2022