NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
OFFICE OF SUSTAINABLE FISHERIES

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ATLANTIC HIGHLY MIGRATORY SPECIES
ADVISORY PANEL

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THURSDAY
MARCH 8, 2018

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The Panel convened in the Magnolia Room of the Sheraton Silver Spring Hotel, 8777 Georgia Avenue, Silver Spring, Maryland, at 8:30 a.m., Bennett Brooks, Facilitator, presiding.

PRESENT

BENNETT BROOKS, Facilitator
JASON ADRIANCE, State Representative; Louisiana Department of Wildlife and Fisheries
PATRICK AUGUSTINE, Recreational
RICK BELLAVANCE, Recreational; New England Fisheries Management Council
ROBERT BOGAN, Recreational
BENJAMIN CARR, Environmental Representative
ANDREW COX, Recreational; Marlin Magazine
MARCUS DRYMON, State Representative; Mississippi-Alabama Sea Grant
SONJA FORDHAM, Environmental; Shark Advocates International

ROBERT FREVERT, Recreational; Proxy for Robert "Fly" Navarro
WALTER GOLET, Academic; University of Maine School of Marine Sciences; Gulf of Maine Research Institute
JOHN GRAVES, ICCAT Advisory Committee; Virginia Institute of Marine Science
RANDY GREGORY, State Representative; North Carolina Division of Marine Fisheries
MARTHA GUYAS, State Representative; Florida Fish and Wildlife Conservation Commission
MARCOS HANKE, Council Representative; Caribbean Fishery Management Council
LUKE HARRIS, Commercial; Pure Harvest Seafood
DEWEY HEMILRIGHT, Council Representative; Mid-Atlantic Fishery Management Council
GLEN HOPKINS, Commercial; Proxy for Jeff Oden
RUSSELL HUDSON, Commercial; Directed Sustainable Fisheries, Inc.
ROBERT HUETER, Academic; Center for Shark Research, Mote Marine Laboratory
RAYMOND KANE, Commercial; Cape Cod Commercial Fishermen's Alliance
DAVID KERSTETTER, Academic; Nova Southeastern University Oceanographic Center
CHARLIE KLUCK, Commercial; Proxy for Martin Fisher
GREG MAYER, Commercial; F/V Fishin' Frenzy
SHANA MILLER, Environmental; The Ocean Foundation
TIM PICKETT, Commercial; Lindgren-Pitman, Inc.
MICHAEL PIERDINOCK, Recreational; CPF Charters "Perseverance"; Recreational Fishing Alliance
GEORGE PURMONT, Commercial
KIRBY ROOTES-MURDY, Commission Representative; Atlantic States Marine Fisheries Commission
MARTIN SCANLON, Commercial; F/V Provider II
DAVID SCHALIT, Commercial; American Bluefin Tuna Association
JASON SCHRATWIESER, Recreational; International

Game Fish Association
SCOTT TAYLOR, Commercial; Dayboat Seafood
PERRY TRIAL, State Representative; Texas Parks and Wildlife Department
RICK WEBER, Recreational; South Jersey Marina
KATIE WESTFALL, Environmental Representative; Environmental Defense Fund
ANGEL WILLEY, State Representative; Maryland Department of Natural Resources

ALSO PRESENT
NIC ALVARADO, HMS, St. Petersburg Office
HEATHER BAERTLEIN, HMS Headquarters
CHARLES BANGLEY, Smithsonian Environmental Research Center
RANDY BLANKINSHIP, Branch Chief, Southeast Branch, HMS Management Division
KARYL BREWSTER-GEITZ, Branch Chief, HMS Management Division
WYNN CARNEY, Office of Law Enforcement, Mid-Atlantic Region
CRAIG COCKRELL, HMS Headquarters
PETER COOPER, HMS Headquarters
ENRIC CORTES, Panama City Laboratory
LEE CROCKETT, Public participant
JENNIFER CUDNEY, HMS, St. Petersburg Office
TOBEY CURTIS, HMS, Gloucester Office
CHANTE DAVIS, HMS Headquarters
GLENN DELANEY, Glenn Roger Delaney Consulting
JOE DESFOSSE, Office of Sustainable Fisheries
GUILLERMO DIAZ, Southeast Fisheries Science Center
GUY DUBECK, HMS Headquarters
STEVE DURKEE, HMS Headquarters
MICHELLE EDWARDS, Smithsonian Environmental Research Center
URIAH FOREST-BULLEY, HMS, Gloucester Office
ERIN FOUGERES, Office of Protected Resources
CLIFFORD HUTT, HMS Headquarters

LAUREN LATCHFORD, HMS Headquarters
GERALD LEAPE, Public participant; Pew Charitable Trusts
YONG-WOO LEE, Office of Science and Technology
BRAD MCHALE, HMS, Gloucester Office
SARAH MCLAUGHLIN, HMS, Gloucester Office
IAN MILLER, HMS Headquarters
DELISSE ORTIZ, HMS Headquarters
RICK PEARSON, HMS, St. Petersburg Office

ALSO PRESENT

CHARLEY PEREIRA, Public participant
MARIAH PFLEGER, Oceana
LARRY REDD, HMS Headquarters
GRAY REDDING, Public participant
LOREN REMSBERG, Office of General Counsel
JOEL RICE, Joel Rice Consulting
ALAN RISENHOOVER, Office of Sustainable Fisheries
GEORGE SILVA, HMS Headquarters
CARRIE SOLTANOFF, HMS Headquarters
MEGAN WALLINE, Office of General Counsel
TOM WARREN, HMS, Gloucester Office
JOHN WALTER, Southeast Fisheries Science Center
JACKIE WILSON, HMS Headquarters
CHELSEY YOUNG, Office of Protected Resources

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P-R-O-C-E-E-D-I-N-G-S

(8:32 a.m.)

MR. BROOKS: All right, we want to get started, so if the folks who are standing can grab their seats that would be good. Thank you. All right, so let's jump in. We have another busy day today. We're going to start in the morning with an overview of Atlantic Bluefin Tuna Management review of 2017 fishery trends and 2018 management issues, and then we will move into a discussion of the implementation of ICCAT recommendations for bluefin tuna and northern albacore.

So let's start off right now on the review of 2017 fishery trends and 2018 management issues, and Brad I see you're up here already, so over to you. I need to stall for more time.

MR. MCHALE: All right, good morning everyone. If there's anyone around the table that I have yet to have the opportunity to meet, my name is Brad McHale. I am the northeast branch chief for the division out of Gloucester, Massachusetts. And myself, my staff primarily focus on those northeast HMS related matters and really kind of hone in on some of the tuna management. And the big dominator of our time is the Atlantic bluefin tuna.

So what I will be doing this morning is kind of doing a recap of how the fishery had played out in 2017. I'll have a couple quick updates of what's already transpired here in 2018. So we'll be looking at some catch statistics, utilization of the quota, success rates of different vessels, number of actions the agency's taken, et cetera, et cetera. Just to kind of get a recap of, kind of, what a day in the life of Brad is up in Gloucester, because you all are dying to know what that is. If you haven't already heard it a dozen times before.

And then we'll kind of just open up to

discussions. This is kind of dialed up, so, to help encourage some dialogue about what the agency should be thinking in 2018 when it comes to managing these fisheries and --

MR. BROOKS: Here you go.

MR. MCHALE: Is that better? Just move it? And I can talk loud so I'm not overly dependent upon that mic, other than pure purposes. So you know, let's get into it and then we can kind of get to the meat of it, where we actually are into the dialogue. You just have to bear with me, I'm trying to figure out how I can actually see these slides.

MR. BROOKS: This is what you're on and this is the one --

MR. MCHALE: Yes, how do you increase that, so I don't go blind by the third slide. Okay. I'll go blind. We'll figure it out. So anyway, here is a table, and I can look over my shoulder too, so, here's a table essentially summarizing our 2017 landings of bluefin tuna. You'll see how we have it listed out by category and some of those categories we have broken out by the subcategories. And as you go from left to right, we're looking at the landings and numbers of fish, the equivalent whole weight of those fish, and then comparisons both to the base quotas, the adjusted quotas and then the percentages of landings.

This is something that both myself and Margo and now this year, Randy have kind of looked at, just to see how much of our actual bluefin tuna quota are we landing at any given year. And if you look in the lower right-hand corner, when you look at our overall catch, which is inclusive of our dead discards as well as our landings, we honed in right about 84 or 85 percent of our U.S. quotas harvested last year. And, as you kind of march up the column you can kind of see where we're at in the general category, the harpoon category, essentially those adjusted quotas were fully attained.

As we briefly touched on yesterday, the utilization of the IBQ is about half with some real dips in the Gulf harvest there, multiple causes going on leading to that. No purse seine landings, there were no active vessels in the recreational fishery.

We had about three-quarters of that quarter landed in, that was divvied up amongst the school fish and then our dead discard estimates. And we'll get into this in a little bit more detail as I proceed through the presentation.

So as far as the list of number of actions that the agency took last year, we had six daily retention limit adjustments, all applicable to the General category as well as the Angling category. We had eight inseason quota transfers, again recipients being General, Harpoon, Longline, and then some quota moved to and from the Reserve. We had two quota adjustments, differ slightly from the in season actions.

So this is kind of, the transfer from unutilized Purse Seine quota to the Reserve based upon the participation in a fishery and then the carryover of any allowable under-harvest from the preceding year into the current year. And that would apply not only to bluefin, but also for northern albacore.

We had experienced a total of eight closures throughout the year, both General category and recreational, once again. And there were essentially two different notices that had gone out, one regarding to how quota is utilized in the Northeast Distant Area, for our pelagic longline fleet. And then ultimately the rule making Tom Warren had taken lead on to modify our accounting for IBQ debts from a trip level basis, to essentially a quarterly level basis, and that is currently in effect this year.

One more detail regarding those inseason actions as it pertains to the quota transfers. I don't necessarily need to belabor this, but it just essentially quantifies where quota was coming from and going to, and in essence, just trying to demonstrate the level of engagement, my staff, and Margo's staff, and Randy's staff, kind of had last year, where we are kind of actively engaged in trying to keep tabs on how these fisheries are proceeding throughout the year, where the various needs are, and then balancing those needs up against objectives of the FMP. The different criteria we need to assess before we do any sort of transfers and try to provide as much equity amongst these actions as possible.

When it comes to the recreational fishery, as far as setting the retention limits, these have kind of been our standard limits for the last few years where we've had two school fish and one large school fish for our privately operated vessels and a little bit more liberalized school fish retention limit for our for-hire fleet with the intent of helping to encourage bookings. One thing that we'll be looking forward to this year is assessing how our quota increase from ICCAT, that approximate 17 percent to the U.S. allocation overall could impact what we do with these retention limits. Are there more opportunities that we can provide for enhanced fishing and where might those opportunities fall, but, yet still remaining within our quotas.

And then, which has been a pretty common place since the completion of Amendment 7, is the, we have three different closure notices for our trophy fishery. One for the southern area, which essentially is, you know call it

Florida north to southern New Jersey, the Gulf of Mexico area, as well as the northern area in those respective dates. I have some preliminary information back at the office that shows that, in all likelihood, when I returned the office will be kind of looking for a southern area closure as well, for that trophy area. Off of the Carolinas is where, and Virginia Beach is where a lot of that catch has been coming in. When you start to look at our records of landing estimates, and these numbers are predominately numbers of fish, and then the landings are in tonnage in the far right hand column, trying to gauge essentially how last year's fishery compared to the previous two. One item to note here is that, through the different methodologies, where we're collecting recreational information it showed like there was an uptick in our school of bluefin tuna catch. And I'll have some of the geographic areas of where that occurred in a subsequent slide, and a slight dip in our larger school fish and kind of our small -mediums were kind of on par.

So when you look at actually the quota utilization, even though there was that uptick in school of bluefin tuna -- again those fish can be lighter, smaller fish, more individuals per metric ton. So the utilization was about 43 percent of our quota there, and we came in pretty much right on target with our large school, small-mediums.

And then with that trophy fishery that I mentioned, because those quotas are so small, currently it's one and a half metric ton per geographic area. By the time you get two fish over that quota, you're exceeding. So that 200 percent mark looks a little scary, but, then we actually looked at -- it's about three fish. It's kind of where we kind of fall, and kind of in response to managing that small of an allocation.

When it comes to the geography per region, why this catch is occurring, using the Large Pelagics Survey as our data source here, you can see that those school fish were predominately caught off of New York and New Jersey, last year. Some of the other geographic distribution catch levels have been relatively constant. And so this will be something that we'll be continuing to monitor closely here in 2018, as we see these different size classes being caught by recreational fishermen.

And one of the challenges we have associated with managing this particular fishery is the lag time associated with some of our survey driven catch statistic, setting up retention limits. And if a particular year class happens to be moving through the fishery, even if you have the same number of individuals being caught from one year to the next, the weight equivalent of those same number of individuals can change dramatically.

So that's something we'll just have dialed up for our attention to keep tabs of this year, is to see if all of a sudden those large school small-mediums, if the numbers tend to either increase or the weights associated with that catch also increases.

So shifting more to the management of our commercial handgear fishery. I wanted to put together here a table that can show what our retention limits were, kind of throughout the season what the landings were associated with those retention limits. And, then ultimately, some of the unfortunate actions we had to take this year, where we had a fair number of intermittent closures in this fishery.

Some of the variables that were contributing to this were unprecedented buyers of fish, especially in the summer and fall fisheries up off New England, where, I forget who I was chatting with yesterday, but, I can actually see a fleet from my office that was less than three miles offshore, parked for two weeks. And, you can then actually see the landings coming in from those vessels.

So vessels had to go very short distances. The weather was unprecedentedly nice, I mean, for all of July, all of August, at least when it was open, and all of September, at least when it was open. Every day was a fishable day, no weather events to disrupt the forage base, to disrupt the patterns. And these fish were pretty numb, they did not get line shy at all through the entire season.

So one item that we took away from this is, don't repeat it, I think we've heard that loud and clear. To do our best to try to manage this so we don't have those disruptions in the fishery.

And one item that I will take complete ownership is, is not necessarily being as reactive to when we saw some of these increases in catches take place to what were the retention limits. You know, we kind of, well, I will take ownership of being, lulled into a false sense of security that there is going to be a weather change. The fish will get warm and shy.

So we'll be dialed into that as well, regardless of where we set the initial retention limits for the year. But to keep very close tabs of what's taking place so we can either adjust them upwards or downwards as appropriate, again trying to strike a balance of keeping the fishery uninterrupted to the best of our ability.

Because we have some information regarding the General category fishery already here in 2018, that fishery started off in January 1st, and we closed that fishery on March 2nd. And there was a one-fish retention limit that entire time.

We performed a number of different quota transfers into this fishery. Ultimately, the final landings, at least to date so far, are just shy of60 metric tons.

And then the two graphs located at the bottom of this particular slide, I want to share, so folks kind of had a good understanding of kind of what action the agency has and has not taken, especially, with this fishery in particular, where the average baseline quota for this fishery has danced just about north and south of 25 metric tons over the past decade.

And over about the last eight years, the agency has actually taken different actions to either supplement that quota to the tune of almost doubling it in some years, but also where the catch and landings have fallen which is usually, kind of, all north with this fishery.

And then as far as kind of closure

dates that have transpired in this January fishery over time. Over the last three, four years, we've made it through the most of March. Unfortunately, this year the catch rates are getting rock solid.

Stupid fishing, is the quote I kept hearing is rod, lines in, fish in the boat and you're on your way home. But, yet, there were some years where we were experiencing closures in February and earlier, because the fish were cooperating, or that's how the management was organized.

Staying along the theme of trying to manage this fishery to minimize disruptions, one dynamic that my staff is looking at real-time, and will be looking at this retroactively is, when we set various retention limits, trying to look at how successful fishermen are at landing those various retention limits, to try to dial this in, to see exactly where we might want to set retention limits so we're catching our quota throughout the season, but, yet we're not necessarily having these disruptions.

You know, one item in particular that we experienced in the summer fishery, is when we reduced, say, retention limits between that June 1st and August 4th date down to that August 5th and 16th, where we dropped it from four fish to two fish, actually catch rates went up. And so whether or not there was more effort, because the word was getting out more and more that the hawk bite was happening. So especially with social media and the proximity of those fish to the shore line, we just saw effort rates, just spike. You know, with no real gradual incline, they just jumped. So extremely difficult to manage those dynamics, but we'll be doing our best to try to hone this in so we're not necessarily having over-liberal retention limits that can then lead to more problems in addition to just closing the fishery, but we heard as well as, you know, the number of fish going onto the market, the number of fish being exported, the number of fish remaining domestic and, then ultimately, what is the value of those fish that is being paid back to the fishermen for that catch.

Essentially, just another way of displaying the catch data, kind of showing specifically to the General category, those time periods, the base quotas, the adjusted quotas, the catch that had occurred in that time, essentially, how that catch had accumulated throughout the season to try to give a representation of kind of where we were at. You know, again, trying to set the understanding in those folks within the fleet, those interested in the fishery and ourselves about where kind of catch ended up based upon some of our actions or inactions as the case may be.

Where, if you look at, say, some of

those percentages in the middle of the table, of percentages caught of the base quotas and percentages caught of the adjusted quotas, last year the winter fishery catch was, you know, 438 percent of their base quota. Now, granted the adjusted was about 133. And as you kind of go down the chart, kind of how we were lagging behind of kind of staying on point to manage some of these fisheries within those quotas or adjusted quotas.

Thankfully, we had the reserve to kind of cover for some of that. But just a dynamic, again, again, we're going to be dialed in and trying to monitor much closer this year. And, Benny Hill is in the room.

(Simultaneous speaking.)

MR. MCHALE: So and again, for looking at 2018 -- and Benny Hill left the room -- so 2018 our General category landings, just kind of summarizing what's transpired so far. This year we had a base quota of, just shy of 25 metric tons. We performed two different inseason transfers, to essentially double that allocation to just shy of 50 metric tons. The landings that had been recorded before I left the office were just shy of 60, which is about 240 percent of that base quota, 121 percent of the adjusted.

And then we'll kind of see how that plays out when we have subsequent landings as time marches on. One graph that's relatively new, that I'd like to thank Uriah for pulling, that works in our Gloucester office, for pulling together, that really, kind of, demonstrates how this fishery played out over the past year.

So if you look at the straight, horizontal lines, that essentially represents, where the quotas were at. And you can kind of see where we did inseason transfers to adjust those quotas upwards.

And in the various colored curved

line, you can kind of see how catch had progressed kind of throughout the season. So as you kind of go from left to right, you can kind of see that landings in the January time period were relatively slow and steady, up kind of through February.

Then, we saw an uptick and things kind of leveled out. And then we saw a kind of uptick once again at the end of March, of last year. Then as you kind of forward to the month of June, there's this kind of misconception within the fishery that, as soon as June 1st, the fishery opened, catch rates were through the roof. And we're getting a lot of feedback now that we should start the fishery at one fish and be very conservative.

And I understand that feedback, but it's also kind of putting things in context that, for the entire month of June, our catch rate was the equivalent of one day of July fishing, or one day of August fishing. And so one thing that we'll be wanting to keep in mind as we entertain how to establish those retention limits.

But as you can see, apparently, the bluefin caught, a memo, that July 4th was a holiday, and they started to party because that line just never came down, even, when we modified the retention limits from four fish, down to two fish, and ultimately, one fish.

It was a fishery very reminiscent to, back in some of the late 90s and early 2000s, where, you know, one fish was the norm. In fact, we were actually exploring different management measures of how you slow the catch down, where there actually days where you weren't allowed to fish for bluefin.

So very curious of whether or not this pattern repeats itself in 2018. It's always the question we have this time of year is, you know, how are things going to shake out. Rarely, does one year repeat the next but, you know, we need to be prepared for this scenario as well as kind of any other scenarios the fishery throws at us in '18.

Shifting gears to the harpoon category, again kind of looking at how successful that fishery was, the number of fish that were landed in the large-medium or giant categories and then looking at the various success rates, just trying to figure out how to manage this quota.

The quota is overall, relatively small and, you know, small number of user groups, very weather-dependent. So trying to figure out how to manage, not only that category, but the harvest with that gear type overall.

So harpoon gears are authorized not only in the dedicated Harpoon category where that is the only gear type allowed. It is also allowed as one of our General category gear types, that diversified commercial handgear.

And so we kind of wanted to look and see kind of what the catch was in both of those respective categories. And it helps inform us where we may want to set retention limits early in the season when fish are line-shy, and are more present and available to this gear type, but also kind of looking at contributions of harpoon harvest to the General category, where they were just about five and a half percent of the overall General category landings and trying to figure out how to kind of manage that gear type as it straddled these two different categories and where those fish are weighed against the respective quotas.

So some of the things that lead to some of our actions or inactions is on the other side of this table. And that is reporting a compliance, whether it be on vessels or dealer side. You know, one thing, when we have catch rates at that level and you're dealing with potential closures, compliance with our reporting is essential. The 24-hour requirement, isn't just to be a pain in the ass. It's because, everyone around this table and the folks you represent, expect us to turn on a dime and be that responsive when all of a sudden dynamics in the fishery changed.

And for us to accomplish that goal and meet that expectation, we also, then, in turn, need real-time information. And so what we experienced this past year, more so in previous years, was some of the delays in our dealer reports that were dependent upon assessing what the catch rates are as well as the geographic areas the catches are coming in from.

And so we did an assessment of those kind of high-volume dealers throughout the fishery, essentially, handling 100 fish or more within the season and kind of looked at their kind of timeliness of their reports where we had a range of some dealers being fully compliant, getting us their reports within the 24-hour time period, with others being close to a week behind schedule, with the average across, you know, those dealers being about three days.

Now if you compound that three-day lag time with the weekend, or even a holiday weekend, my staff and I are now a week behind the curve as far as information we're using to inform our decisions as far as retention limits, or closures to kind of manage the rates of catch.

And so when we kind of extrapolate that even further, you know, we had some dealers, on the far right-hand side of this, that were extremely late.

Again, these were kind of more mom-and-pop type things. That wasn't really the impact. The impact is really, when you have those on the left-hand side of the chart, you know, when you're dealing with reports that may be a week late. You know, granted our communications are pretty strong with folks in the industry, but, when we're ultimately making management decisions, and you're a week behind in your information, you may drop a fishery from a couple fish, you know four fish, three fish, down to one, but, you're too late.

And then all of a sudden, by the time you've actually done that retention limit drop, you actually need to close the fishery. And by the time you close the fishery, you're now two weeks late. And that essentially is a big component feeding into those disruptions we had this year.

And so I'll be working very closely with our Office of Law Enforcement and have already proactively communicated with our dealer community, and will lean on all of you to work with your constituents as well that are involved in this trade, to make sure that they get their act in order.

Because, ultimately the fishermen you may represent will be the ones impacted by these closures. So everybody kind of essentially needs to do their part.

When it comes to the vessel report requirement, which we put into play with Amendment 7, this also comes in as data source I depend on. It's not only looking at the dealer reports, but, what are vessels reporting.

And I know that this has been an issue that we've been struggling with since its inception of how do you improve compliance rates. And as you can kind of see here, we've got it measured in the number of fish and the fishermen kind of reporting.

We can compare those dealer reports to those vessel reports to kind of get a compliance rate. And although, compliance has been improving over time, as you can see from looking at the General category in percent of fish reported, we started at 14 percent, jumped to 44 in '16, and are at about 51 percent last year. That progress isn't nearly acceptable.

And so what we've also done here, is we've migrated from say an outreach and educational approach with our constituent base, to supporting now Office of Law Enforcement and our joint enforcement agents to start citing these violations.

And I have been preaching it for a couple years now that I can serve up these violations to enforce them on a silver platter. It is, here's list A of all the dealer reports. Here's list B of all the vessel reports. Every vessel report that's null -- write them a ticket.

And I'm pretty close to that point, seeing that other efforts have been unsuccessful. And so I suspect we'll have some upset fishermen in regards to this, but maybe it'll get their attention with the stick versus the carrot.

So something we'll be striving once again for is improved compliance here, given the ripple effect on how responsive we can be in managing the fishery.

Shifting gears to some of the other commentary we heard last year was the quality of the fish and then, ultimately, the prices returned to the vessels. One thing that we kept hearing from dealers and fishermen was, especially during the summer months, a very low quality of bluefin tuna where those fish were actually competing with bigeye tuna on the international market.

And some of the prices coming back to the fish were minimal. I've seen weighout slips where it was $2 a pound. Or a fishermen not actually getting paid because a dealer would export the fish, but by the time those export cost were covered and what it sold for at auction, the fishermen actually owed the dealer money.

Not that I think anyone wanted to collect but that dynamic existed a number of times last year. We bore the brunt of some of that blame, given some of the retention limits and the volume of landings, so we'll take some of that. But some of it's just market driven as well.

I do not control the quality of bluefin, as much as I would like -- or the yen to dollar exchange, but, I'm trying. So ultimately what did that result to? You look at the kind of volume of fish, where they're exported versus remaining domestic.

And I know we've talked around this room a fair amount of what are the marketplace for these fish? And if we're in a situation where 60 percent of our fish are remaining domestic, then I think there needs to be work done, whether it's agency collaboration with the industry or industry of, how do you then try to establish more robust markets if these fish are going to remain domestically, to try to improve the value of this catch to the best of our ability.

But again, this is something now that is difficult. There are lots of different variables at play that are beyond our direct control, but something that we're, kind of, keeping tabs of to the best of our ability as well, as far as what's staying and what's going here, domestically.

Brief update regarding the status of our Atlantic bluefin tuna purse seine fishery. We set it up in Amendment 7, that we would have to announce the start date at the beginning of every year.

Last year, we did not announce a start date. There were no active permit holders or vessel combinations within the fishery. Hence, there really wasn't much of an urgency to establish a start date. And one of the things that we'll be continuing to look at and discuss, and Tom will touch on this briefly, and, kind of, our three-year review, given the role of this particular segment the fishery has in our IBQ, is, what is the future of this fishery.

We know that there are a number of participants that haven't been active well over a decade. We know that some of the vessels have been sold to different entities.

And so this is something that will be getting a little bit more attention over the next number of meetings, over time, trying to figure out where the overall fishery needs to move to. And the Purse Seine category is part of those discussions.

Because I think I've already been a little long-winded, this essentially is just to explain some of the catch information of the provided table format earlier in the slide, if you gravitate more towards charts versus tables.

Touching briefly on some of our dead discard information. We know Marty has been upset for a number of meetings about my inability to deliver this sort of information regarding some of the discard reports that have come in from our handgear fisheries.

Some of the challenges that I've come to experience with this particular data is, how do you get it cleaned up? Like I know with our logbook programs that we have a dedicated staff in the Science Center that's working to clean up that information. We know that the individuals completing those pelagic longline logbooks, are well versed as far as what needs to go in them.

Where the universe of individuals filling out our handgear reports, we've noticed a couple of different things where we need to be diligent in cleaning up that data.

For example, in data fields where you would expect numbers of fish that would be released, we're seeing actually lengths of fish. So all of a sudden an 81-inch fish that was released dead, is now looking like it's 81-inch -- or, excuse me, 81 giants that are released.

And then the time it's taking to then go back and clean up that data is a big chunk. So one of the things, now that we have three years' worth of information here, is trying to figure out how to refine this reporting, whether it's through its design -- is there confusion where we're seeing patterns of human error where maybe it's not clear in the instructions of what sort of information folks should be reporting, human error, and then, like I showed in the previous slides, just overall the compliance with these reports.

So this is something that, although we

haven't been able to provide the data as rapidly as we'd like, just like anything we'd like to get that information as cleaned up and as accurate as possible before we release it.

Because, once it's kind of out and available, like we've all experienced, if there's bad data out there and all of a sudden we're latching on to it, it's very difficult for them to correct the understanding of why that information has changed over time or why it may not be appropriate for informing certain management decisions.

So overall kind of our landings by quota, again, displaying it in chart versus a table, very similar to the distribution and the patterns from years prior. Our geographic distribution of our commercial landings, again, very similar, no dramatic changes here.

And then kind of getting into the meat of some of the suggestions that we were hearing last year that are carrying over into this year, of, ultimately, how important it is for the United States to harvest its quotas, regardless of what the species is, but especially for bluefin, some of the dynamics of setting up retention limits based upon the economic needs of the fishery and how far offshore those fish may be.

Given some of those market conditions I touched on, price per pound, et cetera. And, whether or not those fish may be offshore in one geographic location and inshore in another -- how do you strike the right balance there of trying to level the amount of landings to maintain continuity versus having those closures.

And there's different opinions here, so we're getting both sides of the coin. I believe somebody that wasn't around when we had restricted fishing days suggested we actually bring those back. And I will do my best to educate them on how successful they were. And then, ultimately, concerns whenever we have any of these closures.

And what is some of the post release mortality when you still have large bodies of large fish readily available to a fishery and they're still having pressure where it's now catch and release.

We have a couple of papers that have been produced recently, Willy Goldsmith, for example, that touches on some of this. But it's still a concern is what is the mortality associated with that keeping the fish pressure.

And then a litany of other items of quota distribution, preserving December fishing opportunities, concerns regarding maintaining traditional quotas and, essentially, allocation and balance is kind of what those all kind of fall into.

What we also heard regarding the

harpoon category was essentially don't allow harpooners in General category. So that reflects back on the slide of, what was the contribution of that gear type to that category, pretty minimal.

Whether or not there should be similar retention limits to the General category regarding large-medium bluefin. And then, ultimately, you know, taking all of those into consideration as we set up our retention limits as we move forward further into the 2018 season.

So, essentially, knowing that -- well, thankfully I broke down the last slide. So, essentially, some of the, you know, discussions that are appropriate kind of for the here and now or any thoughts regarding retention limits and almost that micro-management of the season overall.

I'd like to hold off with some of our bigger picture commentary to when Sarah

McLaughlin, does her presentation regarding some of the ICCAT quota increases and the forthcoming rule making that'll speak to those, both for albacore and bluefin.

And also this afternoon, where Tom has a pretty extensive presentation, kind of looking at some of the data analyses as it pertains to our management measures in Amendment 7.

So I don't want to cut off discussion here, but also just to let you all know that we have multiple opportunities today to talk kind of bigger picture as well as some of the longer term management when it comes to the species.

MR. BROOKS: Great. Thanks, Brad, very much. That was really a thoughtful and thorough presentation. A lot to digest. We have about 20 minutes or so, 15, 20 for questions on what Brad just walked through. So just open this up to either questions that are, you know, clarifying questions on information he presented, or comments, observations on it. David, start off there.

MR. SCHALIT: Thank you, Brad. Very comprehensive. Just two things, kind of bookmarks for further discussion. In connection with catch and release when we have closed periods, probably something to definitely take a look at in connection with the possible limitations on that and also best practices.

Another thought was, the reporting from the fishermen in the General and Harpoon categories directed to the agency is an ongoing headache. And ABTA has been pushing this to the fishermen. I think we can do more. You know what, I think the agency and ABTA can do more. We just need to get together and strategize on that. Thanks very much.

MR. MCHALE: Yes. And, thank you, David. I know one thing that had come up yesterday was the streamlining of vessel reporting overall. And so where predominately, you have a lot of these vessels, excuse me, that may have multiple permits, so they may have VTR requirement and then, in addition, the HMS, and so some of the efforts that we're trying to push that forward, would hopefully increase that compliance rate where for example, underneath some of the GARFO regulations, regardless of what your target species is, you have to report your catch through that methodology.

And I think it's kind of common place where folks, and I understand that some think, well, I just reported my VTR. That now has met my HMS requirements. And so it's trying to break down those stove pipes, where all of a sudden that actually comes to a fruition versus a misconception of fishery. So, thank you, David.

MR. BROOKS: Thanks. I've got a few people in here, I've got Raymond, Jason, Glen, Mike, Scott, Tim, and George. And then, I think

Greg as well, just Tim did here -- oh, sorry, Walter. Let's go Raymond.

MR. KANE: Yes, good morning, Brad. Thank you for the presentation. What strikes me is your compliance issues. We have it rampant throughout many fisheries in New England. I know on a State level we've set up by a green, yellow, and red box. Well currently what are the fines? Like, if a boat doesn't report in time or the dealer doesn't report in time? Is it like a $50 ticket? Is it a thousand-dollar ticket? Have we any idea?

MR. MCHALE: We definitely have a, and this came up yesterday, a penalty schedule that I want to say it's almost like $500 for first offense, but I'm shooting from the hip here.

But there are kind of relatively fines, stiff fines depending on whether it's a commercial or recreational. But it's also how egregious is that reported.

Are they repeat offenders? Are there high volumes of fish? You know, so things can go from almost a citation at -- let's say you have five fish you're delinquent on. Is that five, $500 penalty so now you're at, say, a $2,500 fine. Or is it so egregious that we would then collaborate with the Office of Law Enforcement, and our attorneys of Law Enforcement, where maybe a NOVA is more appropriate based upon the behaviors being experienced in that particular incident.

So there are essentially, the speeding ticket versions as well as all the way on, depending on the specifics or how egregious the delays are.

MR. KANE: Thank you.

MR. BROOKS: Thanks. Jason.

MR. ADRIANCE: Thanks. Brad, are you able to get back to Slide 22? Yes, that one. I was just curious. And if this is too big picture, tell me to shut up and I'll wait. Is there anything you're looking at that happened in 2012 or a set of things that may have happened that just drove that off the cliff?

MR. MCHALE: Unfortunately, we have not necessarily had the time to kind of do the retroactive of why the 74 down to 49 percent. You know, catch overall had been very solid the last couple of years, so it's not like a -- so one of the things we've heard and again, haven't verified it, is what is the volume of U.S. fish entering the market?

And is that ultimately depressing the price to the point where it doesn't make sense to export. So also you see that as a dynamic, which I think there's some merit to that. But, not to the degree where we're seeing that cliff there during '12 to '13. But whenever there's a rainy day or we get a free moment, which essentially doesn't exist, this is something that we would like to sink our teeth into and collaborate more with also some of the dealers and the exporters.

As far as, okay, what did they see? Is it a drop off in quality? I know Walter's looked at that for a number of years, and it's kind of, the quality changes over time. You know, but, unfortunately, we don't have a solid grip right now of the variables at play.

MR. BROOKS: I think Scott has an observation on that he wants to weigh in with.

MR. TAYLOR: I mean, obviously there's some substantial in the deal or unavailability to the export markets. What we really saw happen in 2017 was a substantial amount of surplus supply on the global market. So primarily most of the fish going into Japan -- I mean, most of the high quality fish go into Japan.

So unless you have a fish that really has the right mix of both color and fat content, it doesn't make sense to be able to ship it.

What we saw in 2017 is you could have the right mix of fat and the color content, but there was no real value in shipping it to Japan. So if there's only a couple-of-dollar upside opportunity, the downside of the risk is so substantial because if that goes wrong, you really can wind up, as you said, upside down, you know, in the marketplace.

But in general there were just more fish that's on the marketplace. Whether or not that's been associated with, you know, additional, supply or ranching that's going on, or stuff that was coming out of the Med, Spain, Greece producing, you know, fish in general, there was just a lot of high quality fish. And the yen exchange rate was a big factor in that to the dollar as well. So all of that dynamic, ultimately, you know, affects whether or not, you know, Japan becomes a big buyer for these fish.

MR. BROOKS: Thanks, Scott. And, then

I think John wants to weigh in on that too.

MR. WALTER: Just to point out, during that time, you know, the TAC has been increasing in the East during this entire time. So there will be more fish on the market. And something to think about is that the TAC is going to continue to increase dramatically in the East. And that's going to continue to have this, to depress the exports, our exports.

MR. BROOKS: Thanks, John.

MR. WALTER: Thanks a lot.

MR. BROOKS: All right. Glen. No, who am I looking for here? Okay, Marty, let's go to Mike.

(Simultaneous speaking.)

MR. BROOKS: I'm sorry, I did. Yes, Dewey.

MR. HEMILRIGHT: Thank you for the presentation. That was pretty neat. One of the best transparent presentation that shows about the bluefin fishery.

A couple of things. Question I had to looking at data requirements for reporting and the 24-hour reporting.

There's no reason one of the requirements for the dealers is to report within 24 hours. So there's no excuses for six, seven, eight, ten days later.

I was under the impression the other day, I heard that a dealer was fined for two days being late, a thousand dollars. The other day down in North Carolina.

And when somebody gets fined, that helps with compliance. There should be no reason for not reporting.

Going to the recreation, or to the General category of reporting. Part of the requirements of that is to report within 24 hours your landings.

We saw that where over the past three

years we got compliance rates up to 50 percent. Still woefully inadequate.

I've had a discussion with you about helping to put on the permit itself, there's a spot in there where you can add that you have to report within 24 hours. And that's going to be looked at, because there's no excuse for not knowing that.

Second of all, on your catch and release -- your catch and release part, where you go to report your bluefin tuna. Under the category of fish released and where the discrepancy is of how many fish or inches, or whatever, maybe you could add some additional language that under that is individual fish that were released. Or something to that category.

Where they got a piece of paper here where I reported a General category fish that was landed. And there's room for that in there.

Also, the breakdown of compliance,

could we have a breakdown of compliance by the seasons to see exactly what season is not reporting within 24 hours? Also, the amount of vessels that's not reporting within 24 hours?

Because that would give you an idea, maybe generally, what area doesn't want to report. Who reports the best. And it would also help in seeing who gets rewarded with more categories, I mean, with more fish.

That is a problem. And I go back to this reporting issue. It reminds me a little bit with A7 for bluefin tuna where the Agency chose for the pelagic longline industry that if you sent your logbooks in late, and you didn't pick an observer, but you avoided bluefins, your scorecard wasn't good.

And so you decided -- you didn't fine them. You decided to take people's livelihood for December to April off a coast where they fish.

So the inequities here about what you

all have chosen to do with the General category for not reporting in their compliance in three years, and the inequities of what the Agency chose to do in A7 with the pelagic longline industry is disgraceful.

And I want to spread the love of reporting that I have to do --

(Laughter)

MR. HEMILRIGHT: That I have to do as a pelagic longline fisherman, and the accountability of our industry to everybody else. No more, no less.

MR. BROOKS: Thanks Dewey. Oh, didn't mean to cut your off there, sir.

MR. HEMILRIGHT: And so, some of these things, you all are getting closer to getting this achievability.

But, the way to get the action is if you took the livelihood away from individuals who don't comply, just the same as you all did with individuals for A7, you'd get a lot quicker response.

But your report is very transparent. It's good. It's interesting to see. But, these are just a couple things of tune-ups that would be helpful in the future and going a long way to help individuals comply. Thank you.

MR. BROOKS: Thanks Dewey. There's a lot of constructive ideas in there. Saw Brad taking a bunch of notes. Thank you.

I want to be mindful of time. We actually need to pivot to the next conversation in about five minutes here.

And I've got a bunch of people in the queue. So, I'm going to ask everyone to try to be real focused in their comments.

Mike, you're up next.

MR. PIERDINOCK: Thank you. I'll try to be straight and to the point. Dewey kind of touched upon a few of these things.

I mean, you noted the 50 percent General category reported versus the seafood dealers. I was curious of whether you had the breakdown?

If you looked at the seafood dealers, what states they were from? And compared that to, you know, what was reported?

Maybe we could get some trends to identify what states aren't complying. As part of, I'm a board of directors of Stellwagen Bank Charter Boat Association. We get -- we constantly inform them and the public of the need to report.

But, you see the numbers don't reflect such. And if that's going on up our neck of the woods, I want to keep pushing. And we'll have others do the same.

The other thing is, is with the 24 hour seafood reporting, I was curious of whether there was any issues with that with the winter fishery?

And it sounds like there was one issue. And you know, they got fined. But, is it the same dealers? Is it, you know, all over the place?

Last one may be addressed later. You noted that the winter fishery had the 24.7 metric ton quota went up to 59.2 metric tons.

Did that come -- that transfer come from the Reserve category? Did it come from the Purse Seine category?

And maybe I don't have a concern if the ICCAT levels are going to pump things up. But just curious of where it came from. Thanks.

MR. McHALE: So, the end season transfers that took place this year, some of it was moving quota from the December time period forward to the January time period. So, essentially from winter fishery to winter fishery.

And then there was a secondary transfer from the Reserve of that General category as well.

MR. BROOKS: Scott?

MR. TAYLOR: A question and a comment that we can reserve for later.

The question is, is that I noticed that on the charts there's nothing about the longline fishery compliance. Which, as everybody knows, we have VMS and on board, you know, vessel reporting that you're looking at.

How -- so the question is, how is the compliance in that fleet as it compares to the General category and the Harpoon that are executing, you know, different fishery? Kind of how is our scorecard in that regard?

And the comment is, that I couldn't help but notice that you have 100 percent utilization of the quota in both the General category, Harpoon and recreational fisheries, but that there is a substantial disconnect in the utilization of the available quota in the longline fishery.

And of course, we have zero in the purse seine. Which you know, that I'd like to kind of bookmark as well for later this afternoon so that we can move on. Because I don't think that's a quick topic necessarily.

MR. BROOKS: Thanks Scott.

MR. McHALE: So, just real quickly. The presentation Tom will have this afternoon will kind of get into more the longline specific data and metrics.

So, we'll have your scorecard there. Not yours specifically. But, you know, as a user group.

And then, you know, that purse seine. And you know, one thing we note there is how those fisheries remain very differently, IBQ versus fleet-wide management, you know, that's feeding into some of those numbers.

MR. BROOKS: Thanks. Tim?

MR. PICKETT: Just a general comment. You know, looking at the pricing data and stuff like that, one thing that I think should be concentrated on is taking care of the fish that you do catch.

And a limit of four doesn't necessarily help that in a small boat. You know, I have no doubt that a longline boat can take care of four bluefin tunas.

But, you know, a small boat in capacity, and maybe looking at a requirement to carry ice. You know, I have a feeling a lot of the quota gets burned up unnecessarily for Instagram posts and stuff like that.

You know, it's just making a better use of the quota that we have in terms of trying to get as much money out of what is being caught as possible.

So, maybe there's a requirement to carry ice. I know in south Florida with the handgear fishery, it's not really enforced as much.

But, we're required to carry ice. You're required to carry, I think down by us, that you're supposed to be carrying a pound of ice for every pound of fish that you anticipate catching.

So, you know, it becomes a product safety thing too. You know, that plus letting the -- you know, seeing as a lot of these fish are staying domestically, informing the general public. Because the general public is spoon-fed that bluefin tuna you shouldn't eat because it's the last white buffalo.

You know, somewhere online, or, you know, the HMS page or the Seafood Watch page, or whatever is going on, say hey, eat this stuff. It's domestically sourced. And it's explicitly regulated.

So, that's it.

MR. BROOKS: Marty, you have a quick comment on that?

MR. SCANLON: Yeah, I do. Number one, I've witnessed firsthand fish being drug behind the boat, not even boated, to the dock to be landed. So, talk about no ice, they don't even come out of the water.

Number two, how come HACCP isn't being enforced on those fish? I mean, we have to be -- we're HACCP -- we have to be HACCP approved.

We've got to plug our fish. We've got to report to HACCP on what the core temperature of those fish are before we can land them. So, that should be being done.

The other thing that I've got is on the discard. Does the Agency have a discard criteria for the General and recreational category?

And what is that criteria? And has it been passed onto those area -- to those categories?

MR. BROOKS: Thanks Marty. Brad?

MR. McHALE: I'm not quite sure like what you're referring to there like as a criteria there Marty. Can you explain a little further?

MR. SCANLON: Well, what would you -- what would you consider a discard in the General category? I mean, they rod and reel the boat. Basically the fish isn't dead dead when you release them.

But, what is the criteria when you bring the fish into dock, to the boat, do you gaff them? You put them on the boat. You shoot them. Whatever you do.

And do you place them back in the water after you measure them, he's not big enough. What is the criteria of what a discard is in those categories?

You know, is the --

MR. BROOKS: He's got -- he's got the question. Let him answer.

MR. McHALE: Thanks Marty. So, essentially the way the reporting mechanism is set up, is whether fish are released alive or dead.

So, if that fish has come up and it's the wrong size class, or you -- if it's exceeded your retention limit and the fish is looking good, you pop the hook, get off, it swims.

At the time of release if it's alive, that's essentially how it's reported. You know, within a size category and released alive.

In the same context if let's say a 72-inch fish is gaffed. And all of a sudden you get it on board. They measure it. They do the right thing, unfortunately, and release that fish dead, then that is how that fish would be classified, as a 72-inch fish released dead.

And that's kind of -- I didn't have the live releases here. I have that data and I can share that with you. There's a lot of numbers when you kind of look at the size bracket between 59 and 73 of live releases.

But, essentially it's categorizing by the size class. And when you're releasing that fish boat-side, is it in a live or dead condition, and then reporting it for sourcing, you know.

MR. BROOKS: Thanks Brad.

MR. SCANLON: Well, I would think it would be important to see how many fish are being released alive, you know.

MR. TAYLOR: Is that for the General category, Brad? Or only for the Longline category? Are you keeping numbers on that?

MR. McHALE: We have numbers on both. And so what I will do is I will follow up and share those live releases, combined with the dead releases.

We'll get you those numbers. I have them. I just included dead here because I think that's where the conversation Dewey and I were having at the time.

But, I have that information that we can share back. And it is applicable to not only the commercial handgear fisheries, but also like in the longlines.

MR. TAYLOR: Is it included in the U.S. dead discard quota? Or just for purposes of the analysis?

MR. BROOKS: Let me have Brad --

MR. McHALE: That I'd have to check and see.

MR. BROOKS: Look into this and come back later with some updates. Okay?

I need to do a little bit of time management here. I have several people in the queue.

What I want to do is give three folks who we haven't heard from today a chance to weight in. And then I'm going to push us to the next topic.

So, I'm going to go to George, Walt and Greg. And apologies to anyone else wanting to get in for right now.

MR. PURMONT: Thanks Bennett. In continuing the conversation that Dave initiated, fishing practices once the monthly quota is realized, pertaining to the General category.

It seems to me a couple of things. One is, the number of participants that are actually out there on the water. We should have a handle as to how many there are.

It provides also an opportunity for tagging. Which should be taken advantage of. It's cayo del cielo. It's right there for you.

The other thing is about fishing practices, catch and release, General category.

Boats are more oriented to catching. And the practice of catch and release is much different. So that you have a successful horizontal release rather than a vertical release.

And I think that also it's an opportunity for somebody like Walt, I'm volunteering somebody else's services, to give seminars to people that would like to be a little more enlightened about catch and release fisheries, as it pertains to giant bluefin. Thank you.

MR. BROOKS: Thanks George. Walt?

MR. GOLET: Okay, real quick. Brad, you don't have to address these. I'll just say them.

Number one is slide 12. I just was curious if that also includes charter boat/headboats? That may skew the numbers a little bit.

You probably know several of our

higher profile vessels that do generally bump up against that daily retention limit, quite often catch their three or their four. Whatever their daily retention limit is. And I'm wondering if that might skew the numbers a little bit there?

The prices. The price seems on slide 21, I don't have them. So I -- this is just a general comment. But 9.75 seems really high for last year.

And I'm wondering if this might be an artifact of the mean being pulled. Or the average being pulled by a couple of fish on the upper end. I do know of a couple of fish that were -- that sold very well.

And then finally just to comment on what Ray and Dewey put forward in the reporting requirements. The biggest font you can possibly use, to put it somewhere front and center.

Because we are witnessing even where we aren't named, an influx of boats, probably many of which who haven't fished a lot before for bluefin. And honestly, I have no idea.

And fish coming in with five pound bags of Cumberland Farm ice draped over the top of them. So, thank you.

MR. BROOKS: Thanks. Greg?

MR. MAYER: Yeah, I had something to say about reporting. When we were talking about each individual boat having to report on the HMS website.

Which actually works out fairly well. I can do it pretty quickly. And Michael had said something about it also.

Do you have any numbers about the -- like during the winter fishery and the summer fishery, what the reporting compliance is?

And the reason I say that is where we're fishing, it's one small harbor. Most all of the fish are coming into Wanchese.

We've got a bunch of boats that are

coming in there. There is some pretty good enforcement.

There's a handful of NOAA guys that have been down there on the dock talking to the boats. Going around and making sure everyone's reporting.

The example that Dewey brought up was a fish house that caught their fish on a Saturday -- what they were normally doing, on a weekend, Saturday and Sunday, they'd report it on Monday.

Well, the reason the NOAA guy came in and gave them a ticket for their fish on Saturday, is because one of the fishermen had reported it in his individual report.

So, when you're talking about reporting, I'd like to know, is there a gap between our fishery, or I said our fishery, the winter fishery or what happens during the rest of the year?

Because ours is so concentrated. And

we've got enforcement right there, actually spreading the message to let everyone know to report. That's all I was checking on.

MR. BROOKS: Thanks. All right. Yeah, Brad, please.

MR. McHALE: So, because that request has come up, yes. The information within the reports will allow my staff and I to break that down either temporally or geographically.

So, we can do that and probably have something set up for the fall meeting, if not sooner regarding those compliance rates.

And as it relates to kind of the dealer and the citation that took place, you know, that was the dynamic that I mentioned in the slides. Is that based upon what transpired in '17, our tolerance limit is extremely low here in '18. Regardless of where the fishery is taking place.

And unfortunately that individual,

you know, was the first one out of the season. But I suspect there will be more of those citations, especially in the summer months and fall months, where if the expectations the Agency is going to be held to be that responsive, then we all have to do our part.

And I'd much rather have voluntary compliance to support the fishery as a whole. But, we've seen kind of where that's gotten us in the last couple of years.

So, but as far as that geographic and temporal breakdown, we'll tease that data apart so we can kind of see if there's a -- what the trends are.

MR. BROOKS: David can you be super fast? I need it to be really fast. We're really off schedule here.

MR. SCHALIT: Regarding best practices. I think that this is fairly important.

We've talked about bringing more bluefin tuna into the food chain in this country. Whereas in 2012 we had exports of -- we were exporting 75 percent of our catch.

And now we're exporting way less. And so it means -- it emphasizes that we need to establish best practices for onboard handling of tuna intended to be eaten as sashimi. Thanks.

MR. BROOKS: Thanks. Brad, thanks for a really strong presentation. It's obviously creating some important conversations here.

Sarah, are you going to make your way up here? It would be good.

As you're coming, clearly the big focus this morning here was around compliance. And a lot of really good ideas for moving forward.

And some good suggestions on data as well. And then looking at prices and thinking about what that means for market, for handling of tuna, et cetera.

So, at this point, we want to shift to hearing about implementation of ICCAT recommendations for bluefin tuna and northern albacore. So, Sarah, it's all yours.

MS. McLAUGHLIN: All right. Good morning everyone. I'm Sarah McLaughlin from the Northeast HMS Office in Gloucester.

And as you heard earlier, we have two new ICCAT recommendations. One for Atlantic bluefin tuna and one for northern albacore that need to be implemented.

And at the ICCAT meeting I'm the NMFS staff lead for Panel 2 issues, which cover the temperate tuna fisheries.

All right. First we have an outline. And before diving into the recommendations, I'll provide some basic information about harvest control rules and management strategy evaluation, which we spent some time talking about at the ICCAT advisory committee meeting earlier this week.

And then I'll summarize what's in the 2017 recommendations. And the need for rulemaking to implement the new quotas.

And I'll show what the baseline and -- what the baseline quotas are now, subquotas, and what they would be under the recommended bluefin quota.

I'll also review an issue that I think we heard a little bit about at the last meeting, and we've heard comments back at home, to address shark-damaged tunas. So, having a minor change to the regulations to allow retention of those.

And then lastly I'll share the anticipated timing for our proposed and final rule.

So, ICCAT has been working for several years towards the adoption of harvest control rules for priority stocks. Which were identified as northern albacore, swordfish, bluefin tuna, and tropical tunas.

Harvest control rules implement pre-agreed management actions that will occur in response to various stock status and other performance indicators to help ensure identified management objectives are achieved.

Objectives can include the target reference point, like B target or F target. And avoiding a limit reference point -- on this chart, it's B_{lim}, below which the sustainability of the stock may be in danger.

I've included on this slide the generic form of a harvest control rule. And as you know, generally the ICCAT objective is to maintain populations at levels that will support the maximum sustainable yield.

As part of this process, performance indicators are identified. And for northern albacore they fall into four bins: about the stock status; the safety, which is staying above that biomass limit; yield, which is mean catch over various time frames; and stability, such as variation in catch from year to year, or TAC from one management period to the next.

Management strategy evaluation is the inclusive, interactive, and iterative process for evaluating the performance of potential candidate harvest control rules and reference points in relation to the management objectives.

And ICCAT has identified northern albacore as the pilot stock for this effort. I think we started talking about it in 2013.

And the relevant management objective for northern albacore, now that it's in the green zone, is to maintain the stock in the green zone with at least a 60 percent probability, and maximize long term yield.

You'll also hear the term management procedures, which are sometimes called harvest strategies. And that includes the stock monitoring, the harvest control rule, and management strategy evaluation. The whole process.

All right. So first we have northern albacore. ICCAT adopted a harvest control rule for northern albacore on an interim basis.

And application of this harvest control rule resulted in a TAC increase of 20 percent. Where's Jason? Yes.

MR. SCHRATWIESER: Yes.

MS. McLAUGHLIN: Thank you. Twenty percent -- I need someone to be excited. Twenty percent increase from 28,000 metric tons to 33,600 metric tons for each of the next -- these three years, 2018, 2019, 2020.

And that's consistent with the stability clause of the harvest control rule. Which basically says that it wouldn't increase more than 20 percent. So there you go.

The U.S. baseline quota has increased

by 20 percent from 527 to 632.4 metric tons. And the SCRS is going to continue to develop the management strategy evaluation over this interim period.

And the Commission will review it in 2020 with a view to adopting long term management procedures at that point.

This year, just some sort of housekeeping, the ICCAT would be merging this new harvest control rule text with the previous recommendation, which contained other aspects of the northern albacore management plan. Including things like capacity management, ICCAT record of vessels. So they'll just be putting it into one comprehensive recommendation.

For western Atlantic bluefin tuna, we have Recommendation 17-06. This is an interim conservation and management plan.

It's intended to be responsive to the stock assessment, the scientific advice that we got in 2017. While recognizing the need for a transition from the 20-year rebuilding program that was adopted in 1998 and a future approach that's -- that relies on management procedures.

And that, like I said, bluefin is another priority stock. And probably the next one that ICCAT will be working on.

The TAC increase from 2000 to 2,350, that's about 17 and a half percent for each of 2018, 2019, and 2020. And this adopted TAC is consistent with the scientific advice.

The baseline quota for the U.S. is increased by 189 metric tons to about 1,248 metric tons. The total U.S. quota includes 25 metric tons in the NED. So that total with that 25 metric tons is about 1,273 metric tons.

The recommendation maintained the other quota related provisions. So for school bluefin, we continue to have a 10-percent cap by weight.

So where that was a cap of 108 metric tons, now it would be 127 metric tons that could be 27 to 47 inches. We also continue to have the 10-percent cap on how much we can carry forward if we have an underharvest from one year to the next.

Right now for 2018 it's still based on the previous recommendation. So, it's 108 metric tons. Going forward under this interim time period it would be 127. So if we have underharvest we can roll forward up to 127 in the future.

We need to conduct rulemaking because the codified base quotas right now will remain in effect until we have a final rule effective -- that implements these two recommendations.

For bluefin, I'm going to show on the next two slides what application of the currently codified quota allocations in the regulations would be when you apply them to the new ICCAT bluefin recommendation.

For albacore, we don't divide the U.S. quota up into subquotas. So it's just a matter of updating it in the regulations to be the 20 percent increase to 632.

You'll want to look at these on your screen where it says here. But, the middle column shows the bluefin, the U.S. bluefin quota divided into the category subquotas.

And on the right-hand side is what they would be under the new -- the adopted bluefin U.S. quota, or the U.S. quota that's part of the adopted TAC.

So for example, the General category quota now is about 467. And it would be about 556.

The next slide shows further breakdown for the General category and the Angling category. So General category is broken into time period subquotas. And then the Angling category is broken into the different size classes. And then the north and south component.

Like Brad mentioned earlier, we have a very small amount of quota in the Trophy category. It's been 1.5 metric tons. That will go up to 1.8. You can see the details there.

All right. So that was the quotas. That was ICCAT recommendation that needs to be implemented.

One thing that we've been talking about addressing, and that we could also do in this proposed rule is address retention of shark-damaged tunas.

So, the minimum size regulations for tunas have been in place since 1996. Minimum size of 27 inches for bluefin, bigeye and yellowfin.

And the tunas -- these tunas can be landed round with the fins intact or eviscerated with the head and fins removed, as long as one pectoral fin and importantly here, the tail, remain attached.

They can't be filleted or cut into pieces. The lobes of the tail can be trimmed. They can be cut back for storage. But the tail, the fork of the tail must still be there.

So when, as you know, a shark damages your tuna, it may not be there. So, we've received requests to change the wording like we have for swordfish.

For shark-damaged swordfish, we actually had language quite a while ago in the regulations. And so we could do something very similar, where we say like for instance, a bigeye or yellowfin tuna that's damaged by shark bites may be retained only if the remainder of the fish is equal or greater to that minimum size, 27 inches.

Anticipated timing -- I plan on working on this rule when we get back home. Hope to have a proposed rule out late March.

Typically have a 30-day comment period. Probably have a webinar. And the final rule we typically put out June or July.

We usually wait for the complete data, catch data from the previous year. And we have that at that time.

So, typically we put out a final rule then. Typically there's a 30-day delay in effectiveness. So, these adjusted quotas are likely to be in effect late July or August.

But there are other actions that Brad mentioned that can change the quotas for 2018. We have the annual reallocation of the Purse Seine quota to the Reserve.

And we'll be working on that when we get home as well. Last year that was about 138 metric tons that were reallocated from Purse Seine and went into the Reserve.

And then we also have the adjustment

for underharvest. Expect that to happen, again when we have the complete information for 2017, probably in July.

And I anticipate based on catch figures that Brad showed that we will have underharvest beyond what we're allowed to carry forward. So, we probably will be carrying forward 108 metric tons that will get put into the Reserve this summer.

So that's the timing. And I can take any questions. Or you can use more time to ask Brad questions now.

MR. BROOKS: All right. Well, let's focus on you first here. Let's take some questions and comments. David?

MR. SCHALIT: Excellent presentation Sarah. Typically when do you have file statistics on recreational landings?

MS. McLAUGHLIN: From the year before? We have them now. And that was part of what Brad showed you from that breakdown of size class.

So we have them typically in -- by early, mid-February.

MR. BROOKS: Mike?

MR. PIERDINOCK: Thank you. The recreational Trophy category continues to be very small. Even with the ICCAT increase.

You know, up our neck of the woods we typically suffer from that being shut down in August. I'm just interested if there's going to be any relief in any way of increasing that to reflect the fact that we need it open.

That time of the year is where it's the hot time of the year up in north of Cape Cod. And maybe with that you could see a relief of those individuals that are getting General category permits.

And the fact that they could get a Trophy category, they would go down that road instead of going the General or getting their captain's license to get a Charter/Headboat approach.

Is there any potential of that occurring?

MR. McHALE: So, in regards to this specific action, no. What this action Sarah just spoke to is literally just applying that ICCAT quota increase to the allocations that are established via the FMP.

Knowing and acknowledging that those Trophy quotas are very small and that a compromise is fishing opportunities not only in the northeast, but also in the mid-Atlantic where the size class of those fish is so predominant.

When you're looking to increase that, you're actually looking at more of an FMP amendment. You know, reallocation is really what's involved in kind of modifying some of those subquotas.

So, it's more of a -- along that altitude versus a quick fix.

MR. BROOKS: Great. Thanks. Let's go down to the far corner and then out to Scott. So, we'll go with -- let's go with George first.

MR. PURMONT: A very nice presentation. Thank you Sarah.

What percentage of albacore, of the baseline 527 metric tons do we actually catch?

MS. McLAUGHLIN: Where's Heather? I can tell you that we have a report that we post on the website.

But it was way under.

MR. PURMONT: So, I guess my question is, what promotes the 632 metric tons that we've been reallocated?

MS. McLAUGHLIN: What promotes it? What --

MR. BROOKS: What do you mean by that George?

MR. PURMONT: Well, essentially if you're not catching what you're allocated, why do you necessarily get more? What's the logic?

MS. McLAUGHLIN: At ICCAT the application of the harvest control rule resulted in just a TAC increase. The EU is the biggest northern albacore user.

We are a small player on the northern albacore stage. Our, you know, our quota is now about 600. And the EU has the lion's share, like, you know, high 20 thousands.

So, it just the science support -- the science supports more catch. And so the quotas are up.

Yeah, it would be nice if we could catch it.

MR. BROOKS: John, you want to weigh in on that?

DR. GRAVES: Yeah. Just to that point George. There is a quota allocation key for northern albacore.

And so the United States is dialed in there. And when they cut the TAC to allow rebuilding of northern albacore, which is another ICCAT success story, we had to take the cuts.

And it was of concern, because as you know, albacore availability to our fisheries varies dramatically year to year. And so when we did the allocation key, it was based on sort of a long-term mean.

And but then again, some years we use it. Or may come up close. But other years we don't.

MR. BROOKS: Thanks. I've got Greg, Walt, Scott, Shana, and Glen. That's left over? Okay. Greg?

MR. MAYER: The one thing I'd like to address, where you said we could retain shark-mutilated tunas, that would be really good for our charter fleet. Because we go through a period of time there in June and July, we've got charters every day.

Yellowfin fishing is great. Bigeye fishing is really good. And there's days that boats will lose anywhere from seven to ten, up to 20 fish a day sometimes.

And we've been told by enforcement that you're not allowed to bring anything in. A lot of these fish are 50 or 60 pounds. And you come back with 25 pounds of meat that's 24, you know, 24 inches long or something.

If we could retain that, for one thing it would help -- it would help not have, you know, once we could retain them, you could apply them to your retention limit, you know, three per person.

And then the effort would stop. Instead of staying there, trying to get a whole fish away from the sharks, now you've got something for your people to bring home.

And it would really help us out. And I know the longline fleet in our area has got the same problem.

You know, they're trying to make a living. They're trying to sell a fish. You know, normally they'd sell their fish whole. But, if they've got a piece you get enough pieces to put together, you made a paycheck right there.

So, if we could retain them and have a standard for you. You could have 27 inches or whatever it needed to be.

But, that would be -- that would really help a lot of people out. And it would be less of a waste of resource.

MR. BROOKS: Great. Thank you. Scott?

MR. TAYLOR: Actually I have a question. And also I wanted to kind of, you know, make you aware of the fact that in the next day or so there will be an announcement that we've moved forward to MSC-certify albacore tuna in light of the stock assessment and the changes that were made at ICCAT.

This has been a species that has been, in my opinion, extremely undervalued for us. It's a great fish.

But it hasn't had much commercial value. And so, there's really not been much effort in this particular country that's been made to market the product.

It's, you know, sort of what we do that that marketing should make it more attractive to the EU market and some other places where we hope to find a home for it. And with increased value in the fish, there may present some additional commercial opportunity for us to catch it.

Again, this is a species that is available to us to catch, but just hasn't been pursued because the economics have not been there.

The second question has to do with, you know, quota. And just kind of an overview.

I remember in years gone past, and probably a subject for sidebar maybe for Walt or the other experts. You know, in bluefins that for a long time that there was this sort of status quo perspective of the, you know, an eastern stock and a western stock.

I know of a friend recently that tagged a fish here off of Nova Scotia. It was recovered in the net. Within the last couple of months they got the tag information back.

And with that, you know, with this new perspective of sort of mixing of stocks, can we anticipate different modeling and additional increases that might fall more into line with what we're seeing?

I mean, you know, there's just huge numbers of fish out there that we're seeing. And that the modeling was always kind of based on these two separate things.

MR. GOLET: I mean, I'm not in a place to talk about assessment. We do have an assessment scientist in the room.

I will let him approach you if he chooses. Not to call him out.

But, all I can comment to you is on the stuff we do with the otolith and the mixing is exceptionally high. You know, depending on the mixing model that you use or the out, you know the stock composition model that you use.

Eastern contributions can be between 60 and 80 percent. Even across some of the larger size classes.

So, it's substantial. Subsidies are substantial from the east.

MR. TAYLOR: If you could speak maybe to how that may impact us in the near future at ICCAT. That would be useful.

MR. MCHALE: Let me see if John Walter wants to weigh in now.

(Laughter)

MR. WALTER: So, thanks for being here. I was almost out of it. But, thanks -- thank you for bringing that up.

And the mixing is a big issue. And we are seeing a lot of mixing. And that our -- in particular fisheries in the -- off of Canada where we thought were 100 percent western stock origin fish, where those fish actually go to the Med during their spawning time.

So, probably the best path forward for bluefin is really in the MSE process. That's what ICCAT is thinking.

And so the operating model, which is basically trying to capture the biology, is explicitly incorporating mixing. So that is going to account for the mixing of stocks under different scenarios.

The challenge with incorporating it for the current stock assessment was that there's still a tremendous amount of uncertainty with mixing. In fact, just this recent data that's come in in the last couple of years has changed what we've thought about mixing in particular, like with the Canadian fisheries.

So we just didn't have the time to incorporate all of this new information. We're constantly learning about their mixing.

So the stock assessment remained largely two separate stocks. And I can't comment for the future of what that mixing is going to do for quotas.

But, it is part of the model that's used for the MSE.

MR. BROOKS: Thank you. That was helpful. Sarah, Brad, anything you want to add to that? No. Okay.

Okay, I've got Shana, Glen, Rick and

Marty.

MS. MILLER: Just one point on the mixing. As the eastern quota is going up, you know, threefold over just a handful of years, and Walt mentioned those really high mixing rates, you know, there's a strong possibility that the U.S. fishery is going to be hurt by those eastern quota increases via less subsidy coming over.

But, regarding Sarah, your presentation, thank you. I will not get too far into the ICCAT discussion, since we had that earlier this week.

But, you know, it was a disappointment that the U.S. went in, you know, especially given that we had this rebuilding plan that was supposed to end this year. And went in and pushed for this higher quota that we know will lead to stock decline. At least that's what the stock assessment suggested.

And so as you take this rule and

implement it domestically, I hope you also consider the science that suggests this quota decline will -- possibly there will need to be a quota decline in the next few years. Potentially below the two thousand tons where we already were.

And so, you know, any efforts to relax domestic requirements now, we might be back here in a few years having to put them all back in place. Thanks.

MR. BROOKS: Thanks. Glen?

MR. HOPKINS: Yes. I just want to thank you all for finally addressing the mutilated fish issue.

But I am wondering, why is the insistence on having the fork always intact if -- I mean, what I run up against is -- I have a small boat. And I'd like to cut the thing off at the fork.

If I've got a fish that -- or a carcass

that's 50 inches, why would I have to cut that fork off? I mean, there's no ID purpose with that little bit.

I mean, it's just common sense if the carcass is 50 inches, surely it's, you know, longer the 27-inch minimum size. That's one thing.

Another, just a comment, is also with the fork having to be intact. A hooked fish that's trying to escape a shark, a lot of times that's the first attack point, is the tail.

And so the tail is going to be naturally bit off by the shark. So, are we saying that you can bring in mutilated fish? But if they bit it off at the tail, then you can't bring it in legally?

And I'd also just like to make a note of it just kind of begs the question of why we're having this discussion to start with. It kind of ties in with later on.

But, sharks are, in my opinion, way out of balance. And here we are taking a nice high dollar resource and sacrificing a great amount of it to feeding sharks.

So, anyway, but my main question is why do we have to insist on having the 27 -- or the fork intact if the fish is obviously big enough?

MR. BROOKS: All right. Thank you. Sarah or Brad, do you want to weigh in on that?

MR. McHALE: So, in essence, for all of our regulated Atlantic tunas, given that we do have minimum sizes, and in particular in bluefins, especially in recreational fishery, different sizes that we dial our retention limits into, that fork length measurement, whether it's to the snout or to the fin, is the sole criteria of how those fish are measured and then classified.

And that's something we've held true

to -- I think we entertained doing away with that back in maybe the 2006 rulemaking. And then proceeded to maintain it based upon the enforcement difficulties it would have introduced.

Now, acknowledging that and with this particular proposal that would be forthcoming, we've heard not only from the longliners, but also the for-hire fleet of exactly the points you both have made. And Jeff has made around this table, and Dewey, as well as others, of the number of fish heads that say come back to the boat.

And you know what, they don't fill the hole. And they don't satisfy the customer.

So, we're looking to try to figure out where we can make those accommodations where if that fish is naturally damaged, and in this case say, we propose that even if the tail is mutilated because of the attack characteristics of some of these sharks. But if what remains is above that minimum size, to make that accommodation.

And that's kind of currently where we're at. Again, it's the sole criteria. That sole criteria has led to the discard of a lot of those mutilated bigeye, yellowfin and bluefin and albacore for that matter, where there's still valuable meat left on that carcass that can't come shore-side.

It's trying to strike that right balance.

MR. BROOKS: Thank you.

MR. HOPKINS: Yeah. I appreciate that. But, could you maybe look -- I understand with a bluefin you've got all the different lengths and measurements.

But, on the yellowfin, the base tunas if you could look at maybe doing away. If it's obvious -- if a fish is 50 inches long with the tail cut off, then obviously it's long enough.

So, just maybe you all could, it seems

like it would be a pretty easy lift there to do that. Thank you.

MR. McHALE: We can consider it.

MR. BROOKS: Thanks. Rick Bellavance and then over to Rick Weber.

MR. BELLAVANCE: Thanks Brad and Sarah for your presentations. I'd like to just take a second if I could to make some recommendations regarding the Angling category retention for 2018.

When I looked at some of Brad's slides, it looked like there was a pretty significant increase in the school bluefin catch, the numbers of fish for last year. And then when I looked at his length at age, or catch at length chart, it also looked like there may be a little cohort of that size school possibly developing.

So, I guess I'm more worried about inconsistency with regulations from year to year. And if there's a chance that these fish are going to grow a little bigger, maybe weigh a little more.

The increase in catch potentially go up, that we may actually exceed our Angling category quota. So, with that in mind, and since the quota's averaged for the next three years, it's not going to change.

I think I'd recommend keeping the Angling category adjustments like they were last year on April 30 when you increased them from one fish to the three. Keeping that the same for next year to see how it plays out.

And then if there is a change and I'm updated, it looked like it might have been a bump, you know, any consistency there, we could look at an adjustment in 2019. But for next year I think I'd recommend, for a safety precaution, to kind of keep things the way they were.

MR. BROOKS: Thanks. Rick Weber?

MR. WEBER: Shana brought up a point

that was on my mind. Just in the spirit of Margo with no surprises that what was selected by ICCAT is going to lead to a decrease in biomass over time.

But that has more to do with the '03 year class working its way out the top end. And it's not that they necessarily selected something that was -- there were almost no lines that maintained the biomass.

Everything was going to go down as the '03 year class moved. And I knew there'd be, to that point.

But in that diagram, there was one that maintained. Everything was going to go down largely as a result of the '03 class.

But Shana, in support really that's what this group needs to know, is things like that. That we're going -- you know, I mean, the numbers that were there are going to lead to an eventual decrease in the biomass just from harvesting what's there.

Hopefully Brad, I noted that a possible 2012 class. And maybe this bump that we've seen in rec is another year class that is going to come through that will help us get optimism into the assessment.

And just as Walt didn't want to call out the stock scientist in the room, I understand that Walt has an alternate measurement that he's had to develop for his otolith studies. Because all he gets is heads.

And he has to go back and back calculate length based on heads. And though it's not an immediate solution and it's not -- there's at least an alternative in development there that maybe helpful.

MR. BROOKS: Thanks Rick. Shana, did you want to respond just quickly to that?

MS. MILLER: Yeah. Just on the 2003 year class. The reason it would disappear is because the $F_{0.1}$ strategy that the SCRS recommended is allowing them to be fished out.

Those fish are only, you know, 15 years old they're selling. They could live for more than double that time based on their life expectancy if they weren't fished out by this increased quota.

MR. BROOKS: Okay. We are getting close to break. But I want to get a few folks in here.

Hold on, David. Because I want to get Marty in, Bob, Mike and then over to David.

MR. SCANLON: Well, we could certainly live with the 27 inches. Does -- that means that -- what I'm reading here is that the tail is bit off and the fork isn't there, as long as it's 27 inches, we'll be able to keep it. Right?

And the one quick comment I'd like to have here to Brad really on the last issue is that if you had done, I think, that financial thing on the prices of the bluefins, if you had taken and looked at what the difference is in retention limit.

If you had put a graph in on that, on, you know, what the retention limit, you know, what the price would be as you do the retention limit. Thanks.

MR. BROOKS: Thanks. Bob?

MR. BOGAN: How you doing? I just was thinking about the slight quota increase. And I'm thinking about large party and headboats.

We used to have a -- used to be able to keep up to 30 fish, like one per man on a party boat. I think that was -- I don't know if that was the late '90s or early 2000s, or whatever.

But now we're subject to the same rules, the same catch limits as a guy in his own private boat. So, you know, the bluefin fishery, especially like in the early '70s, late '60s, was a viable fishery for the party boats.

And now there's very few of us left. So, we were kind of essentially pushed out of the bluefin fishery. Like, you know, it's nice to get a bycatch once in a while. But, we really don't have that opportunity.

So I was just wondering if there was some kind of a mechanism in place as the quota goes up to get some more quota to the party boats.

MR. BROOKS: Either one of you want to weigh in on that there?

MR. McHALE: Yeah. I mean it's definitely something we can consider. You're right. It was like the late '90s where we had those liberal limits for the headboats.

One of the things I'd want to go back and look at was, what were the contributions of some of those that led to some of the gross exceedances of a recreational catch at that time as well. And in the grander context of the private boats, the six pack vessels as well as the headboats.

But that is within our authority to kind of review those and set different retention limits for those three different types of recreational fishers.

So, I wouldn't want to overly make any commitments. But, it's something you know, we can look at in the context of quota increases.

MR. BOGAN: Yeah. And even if it wasn't 30 fish for the whole boat. I mean, like, you know, a gradual increase and see how it works out.

You know, maybe 12 fish just to start.

MR. McHALE: Something we can look at.

MR. BROOKS: Thanks. Mike?

MR. PIERDINOCK: Thank you Brad. Thank you Sarah. To just throw on the table for the General category or, you know, other commercial means and methods that are used north of Cape Cod.

And it's discussions and the phone calls that you have received and I have received concerning whether you take one fish, two fish, or three fish. There's one consistent thing that all have said, we don't want to see a season closure, especially during the fall months that we rely on bluefin up north of the Cape in those waters.

That's the only fish we have. We don't have yellowfin, bigeye or other species. And last year that closure and early closures had a substantial impact on us as well as the entire, you know, like all those that rely on such to make a living.

So, you know, whether it's one -- what everyone has said, if you have to have one to keep us open, that's what they would want.

But naturally, we deal with the

issues, do I have to go out to Georges Bank? And therefore I need two, maybe three, maybe four to make the economics work.

Or, can I go a mile off of Chatham like last year. And like you saw them in your office, and I don't have to go far and you know, the costs are such.

So that's a typical thing. But ultimately what I heard from all is, if it has to stay at one to keep it open that's what we need.

But then you have the economic end that impacts more of the commercial guys. That they're looking for more.

Ultimately the charter/headboat guys though, September, October, they want to see one so they can get out there every day. So, I throw that out there.

And I need to place this here, because if we have another closure, there's very few that are surviving on anything other than bluefin.

And with our cod closures north of the 42, we have zero retention.

Cod, there's been a two-third or more reduction in charter boat bookings as a result of that. So, bluefin is all we have.

And I just want that to be kept in mind with future measures. So, thank you.

MR. BROOKS: Thanks Mike. David, you seem to have the last word in many of these conversations.

MR. SCHALIT: Unintentional.

(Off mic comment)

MR. SCHALIT: Yeah.

(Laughter)

MR. BROOKS: Fortunately that's -- fortunately that's not in the ground rules. So, you're able to say that.

MR. SCHALIT: With regard to the 2000 it's a very successful -- 2003 year class of bluefin tuna, it would be inaccurate to say that the fish -- that this year class was fished out.

We would -- it would be more accurate to say that it is no longer statistically significant.

In actual fact, there is virtually nothing wrong with fishermen taking advantage of a strong year class. It's done in every fishery. Okay.

But that's not what I was talk -- asked -- I raised my hand on. The issue I'm interested in talking -- mentioning, it has to do with sharks taking a chunk out of tuna. Okay.

This, you know, dealers, fish dealers generally who are handling HMS are rather -- are well experienced in managing these kinds of fish who have -- these fish who have been damaged by sharks.

The big consideration there, particularly with the market is that there -- that the bacteria that's in that shark's teeth, in its mouth, would not spread to the adjacent tissue, beyond -- you know, in other words they will remove a very large chunk of meat around where that bite took place.

And we can understand, this is all just logic. But, this problem could be an issue for charter/headboat or recreational fishermen who don't have that knowledge of these issues with bacteria, which generally tend to spike when the fish goes through rigor mortis, et cetera.

And it might be something that the Agency could look at to consider that, you know, charter/headboats, yes, some of them will have experience with this. Some won't.

Very often they're filleting the fish right there on board. Recreational guys who fillet the fish on the dock or they fillet the fish at home, may not have that experience.

And the net effect will be that people will get sick. That's my comment. Thanks.

MR. BROOKS: Thanks very much. And just so you don't actually get the last word. Shana put her card up. Shana?

MS. MILLER: Yeah. Just on the 2003 year class. I didn't say that it has been fished out. It's still very much showing up in the catch data, even if not the U.S. catch data.

What I had said was that the bump up in the quota, I mean, is intended to, or could fish out that year class. And you know, your point about it being okay to target a strong year class, I think you're right.

Except in this case because, you know, we haven't seen strong recruitments for the last almost a decade, the SCRS has recommended protecting that year class. Yet somehow just as they're reaching their reproductive peak, now all of a sudden, you know, they're recommending that we catch them.

So, yeah, they're not fished out yet.

And hopefully they won't be.

MR. BROOKS: Okay. Thanks everyone for the good comments and for the presentation. It seems like you heard a bunch there and Brad, around support for the mutilated tuna rule with a last minute consideration on bacteria concerns.

And a request about dropping the fork requirement, at least for yellowfin tuna and bays. Something to be thinking about.

Other ideas that came up were to look at whether there was an opportunity to increase rec trophy allocation in August. Some concerns expressed about the higher quota and whether that in fact could just lead back to dropping quotas in the future.

A suggestion to hold steady on Angling quota for 2018. A request to look at the opportunity to increase the quota to headboats and party boats going forward.

So, thanks all for the good

conversation. We should go to break. We're just a few minutes off.

So, let's aim for being back here by 10:35. Thanks.

(Whereupon, the above-entitled matter went off the record at 10:22 a.m. and resumed at 10:38 a.m.)

MR. BROOKS: All right. If we can get folks up here, we will get going.

Okay. So let's get going again here. We want to shift now to shark stock assessment updates. We're going to hear first from Enric Cortes and Joel Rice, who will update us on the, on the sandbar shark stock assessment.

And then, that's going to take up the bulk of the time. And then at the end, we'll, Karyl will give us a, a quick sense of assessments to come here in the coming years.

So with this, I ask folks to grab their seats, and let's just jump into it.

So I don't know if Enric or Joel, which one of you is going first.

MR. RICE: I'll present. Thank you, Chair.

As noted, we will be talking about the specifics of sandbar shark assessment that was completed through the SEDAR process, SEDAR number 54.

Outline of the talk is, should be familiar to most people that have seen stock assessment talks. We'll go over the specifics of the assessment by first comparing the new modeling framework with the last assessment framework, which was SEDAR 21.

And then we'll talk about the overview of the new data, and how we adapted to fit into the stock synthesis model, the development of a base case, and then also the presentation of the base case results.

As with most SEDAR assessments, the

assessment went, underwent a peer review via the CIE process. We will talk then about the updates based on that CIE review.

The scope of the assessment really didn't change from SEDAR 21, which was completed in 2010 using data through 2009. It's mostly the Atlantic states and Gulf of Mexico, though it does include the northern Mexican states of Veracruz and Tamaupilas.

MR. BROOKS: Hang on on --- Are folks hearing him in the back of the room? Okay, if you can get a little bit closer to the ---

MR. RICE: There we go.

So the first thing that we does was a replication analysis with stock synthesis. The previous modeling framework was the State-Space Age-Structured Production Model Framework.

Stock synthesis is an integrated analysis that's age and sex structured. And we were able to use fleet and survey-specific selectivity. We had 11 candidate CPUE series, as before. Four different time series a catch.

And then we also used the data and biological parameters that had been used in the previous assessment. The model parameterization is almost identical. The only thing is that instead of structuring it on the age base, we structured it via length.

That, and we also included sex-specific growth curves. Other than that, the model parameterization was almost identically, almost identical.

I'm not going to go over the individual values. They're there for future reference.

Again, just want to talk quickly about the selectivity. There's a lot of parameters here that we don't have to go over.

But basically, we re-parameterized some of the selectivities for the recreational

Mexican catch, and then three indices, the Virginia longline index, the Large Pelagics Survey, and also the Panama City gillnet index were re-parameterized from the logistic to double normal.

And I'll show the changes in how those were affected.

Here, the blue lines are the selectivity curves used in SEDAR 21. And the red lines are the updated selectivity curves.

And you can see that, for the most part they fit almost identically through, throughout the H classes.

The initial conditions that we used for the model included unfished stock in 1960. We also set recruitment deviations to zero, and this fixed the recruitments to the Beverton Holt stock, stock recruitment curve that was assumed in SEDAR 21.

We also allowed a small initial offset

to the recruitment, so that it could be higher or lower than our R-0, depending on how the model needed to get fit.

We fitted the catches with outer, and then also some proportional catchabilities for each one of the indices.

These are the catches in numbers, or for the replication and the SEDAR 21 analysis. Growth and maturity are the exact same as previously used, and as is the natural mortality.

This next slide's pretty hard to see. Those are actually time series of the CPUEs listed on the left, and there's, we didn't change any of those.

All right, so at this point, I'm going to show the results from the replication analysis. And this is, note that we are just using a new model, modeling framework to fit the previous SEDAR assessment data, and then going forward, we're going to update that model with new data.

The idea being that every time we switch from one modeling framework to another, we want to make sure that the results are backwards compatible with the previous data.

The total and spawning biomass are shown here. Basically, the model estimated initial equilibrium, or equilibrium spawning biomass to be slightly higher than the, the previous model - and I'll show that in a minute - and then a decrease through the 1980s through 2010 as the major fishery kicked in.

What we're seeing here is, the green line is the SEDAR 21 output from the SPASM model, or the State-Space Age-Structured Production Model.

And then the blue line is the replication analysis that was conducted with stock synthesis.

Basically, we fit the model really

well. The models were very well-correlated in the time period where we had data. The initial part was not as well-fit, but given the fact that the results were almost identical in 2010, we decided to take these results, and move forward with the model fitting.

So just a comparison of the estimated fishing mortality. On the left, we have the replication analysis that shows high ---

Don't worry about it.

On the left here, we see some, can we get there, no. Here we go.

On the left, we've got a really high spike from the recreation and Mexican fisheries coming in with that large input of catch.

And then on the right hand, this is the ---

MR. BROOKS: You can push the button right here.

MR. RICE: Got you. Estimated fishing

mortality from that same fleet from the SEDAR 21 analysis.

The spike's not as pronounced, but for the most part, the fishing mortality by fleet is, is comparable - especially here in the last few years, what you want to notice is that the main fishing mortality is from that recreation and Mexican fishery, as is replicated in, in the new analysis.

So we're going to talk about the fits. All, altogether, the fits to the data were, were very similar, and similar in the fact that we didn't fit all, all the points - especially on the, in the early time series here, we've got this high draw down of the stack during the height of the fishery for the Large Pelagics survey.

This is evident again in the fits to the stock synthesis model. But for the most part, the fits to the data are comparable between both modeling frameworks.

I'm just going to go over to the other fits here.

Virginia longline is the longest-running time series we have, and it shows one of the largest drops in relative abundance from the 1970s, when the stock was relatively unfished, through to the later years of the time series, 2010 here.

And that's evident with both modeling frameworks here. We can see that that was a relatively well-fed, with stock synthesis, which are these graphs on the right, and all the ones on the left are from the previous SPASM model.

There, fits to coast, NMFS coastspan data in the northeast survey are similarly fit. Kind of split the difference here between some of the high inter-annual variability, and for the most part, the 95 percent confidence intervals around the data there.

The Pelagic longline observer

program, again, has a slightly precipitous drop that starts later, in the 90s. The model had a hard time fitting that, as the population had been expected to start declining almost a decade before with the advent of the Maine fishery.

But then again, the Georgia coastspan fishery is relatively flat on a larger scale. Kind of fit some of the, the trends straight through.

Okay. Last slide here on fits. The Panama City gillnet fishery is highly variable, and for the most part relatively flat. Here the fits are fairly comparable for both the southeast, or South Carolina coastspan, and the South Carolina red drum fishery, or index.

This one was, was poorly fit. It just, at this point, the model is saying that you can't be going down then going up at the same time when the population is expected to be decreasing throughout.

The age structure. This is, apologize, really difficult to see. For the most part, the numbers, the average age is decreasing from about 6 and a half to about 5 and a half throughout the time, the time series of the model.

Recruitment comparison, we're estimating the exact same recruitment curve in both models. So we're relatively confident that based on the results we're getting, and based on the input data in the two different modeling frameworks, we're getting the same results.

And here are, because the models are structured slightly differently, you don't get the exact same model outputs. However, we can back-calculate some of them.

The grade bars here are the ones you might want to pay attention to. They are the quantities of interest.

And so this is your F in 2009 over

FMSY, .62 versus .51. The total FMSY is 0.21 versus 0.3. So that indicates that stock synthesis believes that there's slightly higher productivity of the overall stock.

Now, there's a couple reasons for that. But mainly, there's an expanded age base in the stock synthesis. We're modeling the age 0s, as well as the age 1+s, whereas in SPASM, we were just modeling the age 1+s onwards.

And so that's a constraint of the previous model, and one of the reasons we moved to the updated model - so that we could include more of the data.

Anyways, the, the overall results here with respect to your, your depletion were very similar. The biomass in 2009 over B0 was .034 in the SEDAR 21. And then the replication analysis had it at 0.32.

So with respect to your stock status, the estimates are, are almost identical.

Overall conclusions, the early time period was not well fit, mostly due to lack of data. The data rich period, though, was almost identically fit. It, the B_0 and B_{2009} estimates are very similar. The, the ratio is almost identical.

Stock synthesis on this side shows a slightly more productive stock, and that's evident in a higher F_{MSY} value.

And the estimated stock status in 2009 is the same. So that's overfish, not overfishing.

And we concluded from this that stock synthesis successfully replicated the results from the SPASM model.

All right. So there, from there we're, we started on the assessment update process.

And what we did is, we made stepwise changes, adding in new data, updating the timeframes, and increasing, and changing to the parameterization.

So the, some of the main things with that, we increased the longevity from 27 to 31, noting that in 2006 the two assessments prior to this, the longevity had been 40. It had been, gotten dropped back to 27, and now we're updating to 31. So there's been a bit of, of a back and forth.

Added some new CPUE series, or updated the CPUE series, and updated the natural mortality. And we were actually able to add length compositions into the model rather than estimating the selectivities outside the model and then putting in.

This was based on some of the CIE reviewers from the previous assessment saying that the correct way to include selectivity is to have a, internals to the model.

And then I'll talk about the, the

changes to the data, and then go over some of the stepwise changes, and then I'll talk about the, the results from that assessment.

So one of the main changes was that we changed from modeling the catch in numbers for catching the actual biomass. And that had the effect of changing the proportionality in some of the years over the relative fleets.

I'll note here that you can't actually see the Menhaden discards, because they are so, so tiny throughout. And again, this has a different x-axis on, we were on it for 2015 here for the SEDAR 54, whereas in SEDAR 21 is just in numbers.

Again here, I'll notice that, note that re-assessment was conducted in whole weight, not ground weight or gutted weight. And that'll become important later as we talk about projections.

But for now, the yellow is the

recreational and Mexican fleet, and you'll notice that in later years since the closure of the fishery, it's made up the bulk of the landings.

So as I said, there's been kind of a back and forth between the assessment choices with respect to the parameterization. Here on the left, we're looking at the natural mortality at age.

And the last assessment used this green line here, which was a little, has a little break around age 10, and then the slightly decreasing. We updated that via some analysis that, and we did through this process. And so the blue line here is the estimated natural mortality, starting off just a little bit higher than .15, and then dropping down to .118.

You see the, the steepness value, which is, helps define the stock recruitment curve changed minimally, from 0.29 to 0.3 from the two different SEDARs.

But I thought that, I thought that was important to highlight, though.

Indices of abundance, these are all of the indices of abundance put together and standardized by their mean.

You can see that in general, they're highly variable inter-annually, and there seems to be a slight trend upward from about 2008, 2009 onward, which would correspond with the closure of the fishery - though I would note that that's not for all the, the CPUE series, and including some of the important surveys are, are decreasing.

Just want to compare the updated indices. So this was an updated assessment, not a benchmark assessment, so we had the analyst provide CPUE series that were vetted in the previous assessment, which was a benchmark. And those methods had been well-investigated by the SEDAR team previously.

And so this time, we asked people to use the same methods with updated data and produce new results. There was limited re-analysis in cases where it seemed like some of the data should have been pooled.

So for example, the COASTSPAN index now includes Florida, which wasn't previous available. I'll talk about that in just a minute.

The Bottom Longline Observer Program and Large Pelagics Survey - sorry for all the acronyms here - are, are very similar. Some high number of annual variability here in the last years, but matches this increase. The black data line is the newest, the new data. The green solid line is, is the previous data.

Very similar with the Large Pelagics Survey, we more or less hit that one right on top. We, I say we, but I didn't actually do any of the analysis for this.

This is the COASTSPAN index. So now the COASTSPAN southeast index includes both of these two previous Georgia and South Carolina index which, along with the Florida index - and you can see that that changed rather dramatically over time.

The COASTSPAN age 1+ survey seemed almost identical as well, so pretty confident with that.

The northeast and southeast Longline surveys are very similar. You'll notice a slight change here in the northeast Longline survey. But for the most part the trend is right on top of one another.

The Virginia longline survey changed a little bit in the middle years, but for the most part very similar.

And then again, the Pelagic Longline survey shows that precipitous drop in the early 90s, and then more of a stabling, or more of a stable trend throughout.

So we included this, both of these in the reassessment. This is the South Carolina DNR red drum survey, which only lasted for about a decade. So that one wasn't updated, because there's no new information on that. But then the SEAMAP Longline southeast series was also included, so.

Just a summary of the updated indices. So there are some that are increasing, there are some that are stable and variable, and there's actually two that seem to be decreasing throughout the time series.

On the right here, you'll note the study area. The yellow is the range of the sandbar shape. And these blue lines that correspond with the numbers are spatial coverage of our CPUE series.

And so one of the things you may note is that we have very limited coverage in the southern part of the range. And that's true, though we do account for sharks caught in the northern Mexican states here.

That being said, it, I guess is just practice to treat the fishery in the United States as one contiguous stock without a whole lot of scrutiny paid to the recruitment.

Just want to talk about the observed length composition, because it was one of the reasons we moved to the stock synthesis framework, was so that we could put this into the model.

On the left, we have the females, and on the right we have the observed male length composition, and the green line in each one of them is the age at maturity.

And so what you'll see is that the, the catch stretches all the way from birth, basically, we're catching the age 0s, and all the way through the age of maturity, and up to almost the maximum size.

So we're not catching the biggest animals, but for the most part we are catching a whole lot of immature animals.

So that's the updated data. We put in new catch, new CPUE series, and length composition data - as well as reparameterize some of the model.

So with that, we started going forward on fitting the model.

And so the first time that we did, and I talked about earlier, is we fit the SEDAR 21 data with the stock synthesis, and then we included the new data, and we started to then develop a base case based on hundreds, and you know, just iterations of model runs, trying to get better fits, looking at all the different data components.

And then we evaluated our base case and the uncertainty associated with it by running a number of different models, and investigated the uncertainty that we had with respect to the CPUE series and the parameterization for the productivity, and things like that.

In the end, we did some forecasts and uncertainty evaluation, also via MCMC.

So we'll talk through these next three things here.

The model development, that was an iterative process. First thing we did was extend the timeframe through 2015. I should note that it's now 2018, but when we start this process, it was the beginning of 2017, and data from 2016 were not yet ready. So the timeframe went through 2015.

Then we updated the longevity, the maturity, and all the different parameters, including natural mortality and steepness, and that's what you can see here. And so we just, this is the previous model, and then we updated the modeling framework. And that's the replication analysis.

And then we updated the catch with that. It actually dropped the population a little bit lower. And then we started updating the individual parameterizations one at a time just to see if anything threw the model very far off of where we were.

And it didn't. So basically from there, a lot of different models fit a number of different webinars, and we developed a base case, and I'm going to present those results now, as they were presented in the SEDAR 54 stock assessment results.

The results here show the spawning output on the left, and our summary fishing mortality, that's F over F_{MSY} on the right.

And basically, the trend is very similar to what we saw in SEDAR 21 - stable throughout the first two decades, and then a decrease in the 1980s as the majority of the fishery kicked in.

You see that here with the F ratios going kind of up through the roof. With the closure of the, with the decrease in catches, and then the closure, F ratios came down and then were fairly stable here, just below 1.

The fits to the length compositions were actually pretty good. We had, we were successful at adequately capturing the length compositions here.

These graphs are, I know it's difficult to see from the back here, but you've got males on top, or males on the bottom in blue, females on top in the red, and these, our green lines are where we don't have sex-specific information for that fishery.

They're slightly spiky, and that's due to the patchiness of sandbar sharks. Sometimes they cluster by age and sex, so you'll get high observed values of just one length composition, or one, one class.

But for the most part, they, these helped us pretty well fit, and the goal of fitting the length composition is to inform the model about what size classes are being taken out throughout the time, and I think that was pretty good.

The recruitment, you'll notice low levels of uncertainty here in the early years, and then in, kind of increasing over time. We allowed a few early recruitment deviations, and then the majority of our information starts here in the 80s with respect to, with respect to the estimated recruitments.

You'll notice there's a spike here in, in the late 2000s, or early 2000s, and that is estimated by the model. It's kind of necessary for fitting some of the later increases. I'm going to talk about that in a little bit. So just flag that for later.

This green line is our estimated stock recruitment line, and these little red dots are the actual annual recruitment.

So we allowed the model to fit a little bit of a deviation from the annual recruitments, and that helps it fit both the, helps it fit the catch as known, and then also allows for a little bit of play with respect to the annual population numbers, so we can fit the CPUE series a little bit better.

It fits the indices a little bit better than before. But again, some of the model is constrained by the biology of the species, and also by the catch that we've put in there.

So at a certain point, you can't have the population increasing faster than its annual reproduction rate. And so we, what we've got is, for this species, eight pups every two and a half years.

It's a very low fecund species. The relative late age at maturity, and we've also got a slightly long-lived species.

So it's, it's ripe for over-exploitation. It's kind of that classic shark.

Again, fits for the most part are, are decent. We're hitting a lot of the confidence intervals, but we're not capturing some of the big ups that are, no, no, excuse me. We're not capturing some of the increases in the later years, and, nor some of the decreases in that same time period.

And that's partly because of the fact that we have multiple different indices that are, had some, some conflict in those just the last few years.

The base case stock assessment results indicate that - sorry for the big plot gap, it got a little cut off here - the population trajectory started off here unfished, and then moved through, moved into overfishing, and then back to overfish, and is now here, hovering in the overfished but not overfishing category.

And so these estimates would put the stock at about .6 of the SSB MS-1, sorry. And about .75 with respect to F_{MSY}.

So after we developed this base case, what we wanted to do was evaluate how sensitive the results were to some of the assumptions that we were making with respect to both the productivity - and so that's the reproduction cycle, and pup survival, and natural mortality.

But then we also wanted to look at the sensitivity to the CPUE series that we included.

So what we did is, we came up with an uncertainty grid, which is listed here on the left, and we looked at the low-productivity scenario that showed a three year reproductive cycle, and pup survival was reduced to 0.8.

And then we also increased the natural

mortality for the older ages by 10 percent. And then we kind of flipped that around, and we did a high productivity cycle, where we assumed a two year reproductive cycle.

Pup survival was increased to .9, decreased the natural mortality, and then also assumed a constant fecundity of 9.65 pups per two years.

So those were how we evaluated the uncertainty, and then as an investigation into the CPUE series, and how sensitive the model was to that, we included the base case assessment, which included all series. And then what we did is a hierarchical cluster analysis, which is shown here in this figure on the right.

It's a little work in progress. It's the method that's been used in ICCAT, and it's not without some discussion as to the utility of it, because you can have correlated trends that are, or you can have uncorrelated trends that are actually showing very similar over the time, overall trends.

And you can ---

So it's a work in progress. Take it with a grain of salt.

The group decided not to just use the correlated indices, which is shown up here in this black box, but use the wider group of CPUE series that includes the initial Bottom Longline Observer Program and CPUE series.

And that was based on the decision from the CR analysis group that the conclusion of that early trend would help the model, was appropriate.

Again, that took away one series from the slightly more negatively correlated series. And so that's how we evaluated the inclusion of, of different CPUE series.

We ran a grid, so there was nine different possibilities there, and we estimated and looked at the results, and compared them individually.

So you'll see here on the left, the light blue are the, what we call the positive correlated CPUE series. The dark blue are these base runs here, and the red are the, what were the, the negatively correlated some runs.

Overall scale changed significantly depending on which CPUE series you used, but not so much depending on the overall productivity. The higher productivity bumped you up a little bit, but the lower productivity didn't affect the model results that much.

Now, you'll notice here that the lowest uncertainty was with these negatively correlated, and the highest uncertainty was also with the positively correlated ones.

And the recruitment estimates here, so we've got extremely high estimates of uncertainty with your initial, or baseline recruitment, your virgin recruitment there for the positively correlated ones.

These blue are the base case runs, and then you see, other group, the negatively correlated CPUE series runs limit some of that uncertainty with respect to the model.

You'll see also that these results here for the annual recruitment show in, a very high spike in recruitment in one year as the population was going down.

That, that small spike is evident in each one of the model runs that we looked at, so it's extremely prominent and maybe implausible with respect to the, the species biology for these high productivity, or for these positively correlated ones.

But nevertheless, we did estimate the stock status based on these. And so what you'll see here, there's just nine different circles here.

These red ones are hard to see, but they're in the red here for the, and those red ones are the negatively correlated ones. The blue are the base case results based on the different productivities.

And then here we've got the positively correlated plus the other one that the group thought should be in down there.

So basically, three different stock statuses based on the grouping of CPUEs here. These are the annual trajectories. And they all follow this same or similar trajectory, with increasing fishing mortality, and then the population is recovering slowly.

So it's not really possible to compare against, models against each other that have different data in them, and that's an active area of research.

But we can do is evaluate the internal consistency with respect to the data inputs in the model. And so what we did is some retrospective analysis, and also likelihood profiling over the R0 parameter, because that's our global scaling parameter, and everything kind of relates to that within the model.

And so how that changes with your model, it can give you some information about the overall model fit compared to others.

I'll note that the model is developed around the, all the CPUE series used at once, as this was the base case model approved in the last SEDAR assessment. And as this was an update, our job was to take that model forward.

The retrospectives for the, for the base case were actually very good. Some were better, the best ones I've seen.

So what this does is, we run the model all the way through, and then we drop a year of data, and then we run the model all the way through again, and again, and again, sequentially dropping one year of data.

And what you want to see, what you're looking for is whether or not any of the later data points have high influence on the overall estimate, either of stock status or of your population size there.

So what we're seeing here with the base case is that it does not. Unfortunately, for the positive CPUE runs, we're finding that these last two years are highly influential. And so that's changing not only our estimate of virgin recruitment, but also the structure of the stock.

The negatively correlated CPUE runs are a little bit better, but there is some play - it's kind of hard to see here - up and around the base case, or the model run that goes all the way through.

The next thing we did was, we looked at the likelihood profile. And so what we have here is event examples of two different likelihood profiles where we're calculating the likelihood, which is kind of an information theoretic approach to estimating the contribution of all the data to the model, and how well that's fit.

And so what we look for is the shape of the profile over a number of different values here for our virgin recruitment.

And so what we're seeing here is a very uninformative profile, where it's, we want to, we were looking for, like, a very low value.

And so what we're seeing here is as you move across the model, can't really distinguish between anything a little bit higher than six and ten. So this is the virgin recruitment on a large scale.

Whereas here, when we're looking at a different data component, we're seeing that as we move through our, our likelihood values get smaller and smaller, down to about zero, which is right here, about 6.2.

And then as we increase that value, the model gets fit more poorly. And so this illustrates that there is information in our, in our survey likelihoods here for the CPUE.

So we did that for the different CPUE cases for both the length data, and also for our survey. You can also do it for the catch, but given that the catch is, is the same, and, well the catch doesn't show a whole lot.

So this upper lefthand corner is the one you kind of want to look for. It's the overall survey, it's the overall likelihood comprised of a number of all these different likelihood profiles.

Note that they're on slightly different scales. And some of them are fairly variable, and you have a couple of local minimum, and then definitely some, some different shapes here.

But what we're seeing is that the overall survey likelihood is driven by the later Bottom Longline Observer Program, as well as the Virginia longline survey. And to an extent, of this Large Pelagics Survey.

There, there's some information in these other ones, but they're not all exactly the same, whereas here, our length likelihood isn't, isn't telling us a great deal overall. But again, the later Bottom Longline Observer Program, and the Virginia longline survey's pretty informative.

Okay. Just got the axe.

Positive CPUE groups. This is it. We're not seeing a whole lot of information from the survey likelihood here when all combined. And so this, it's not informative about the overall scale, or as informative as it was when we had all the CPUE groups in there.

Again, the Bottom Longline is pretty informative, as is the Virginia longline, but they're kind of being swamped by these other, other CPUE series.

The negatively correlated ones are actually a little bit more informative. We're finding that same minimum with respect to our global scaling parameter here.

And again, that's resting on the Large Pelagics Survey, and to an extent the Pelagic Longline Observer Program.

All right, so model diagnostic. Hello?

Likelihood profile showed that the base case configuration had supported in different areas of the survey likelihood, but the overall likelihood profile was very informative about the scale.

Negatively correlated CPUEs showed that the Large Pelagic Survey was influential, which sampled some of the largest fish in our assessment. So it was good.

We didn't get a whole lot of conflict or, from the positively correlated CPUEs, however. It didn't show us a whole lot of information with respect to the overall scale.

We didn't see any bias with the negative or base case retrospective runs. However, there was some with the positively correlated CPUE group.

All right, and so from there, we went on to define our base case, which was the base case from the previous assessment.

And one of the things we noted first off was that the productivity scenarios we investigated had minimal effect, and that from there, while we thought the three different CPUE groupings covered plausible states of nature, we basically thought that the base case run was the best, because it had, it had limited the uncertainty in both the stock, spawning stock biomass over spawning stock biomass at MSY, and the F over FMSY directions.

It also had better retrospective diagnostics, and it had some high information about the overall scale of the population. The positive CPUE group didn't have that, didn't have the good retrospectives.

And also, I didn't show it here, but using that CPUE group, it assesses that the shark stock had never been overfished, and had always been fine. And that was because the scale of the population was just so much higher.

So then from there, we wanted to also kind of evaluate the uncertainty a little bit further. And so what we did is, we ran each one of those models through an MCMC process where we generated a number of different results.

I'm not going to go into it now, but basically, this gives us a distribution of results with respect to our overall estimate. And so what you see here in red is the negatively correlated base case, and then positively correlated.

These white dots are the MLEs from our plain estimates. And they're, for the most part, right in the middle. But you'll notice that the, this positively correlated group is, is kind of all over the place, with respect to the population biomass.

The overall projections showed that 66 percent of the runs indicated that stock is overfished and that not, overfishing is not occurring, and that the stock status is largely stratified by CPUE grouping there.

With our base case showing that 97 percent of the runs show that the stock is overfished, and overfishing is not occurring.

We went ahead and did some projections. Basically, we did projections carried out through stock synthesis, and using the uncertainty that's inherent in each one of the parameters, we projected the TAC in whole weight.

And then we also carried, so carried out projections via MCMC.

And we did them based on different time horizons according to the terms of reference. So basically, if your stock's overfished, you pick a different recovery timeline than if overfishing is currently occurring.

And then if you're in the green, then you get to pick something different. Sorry.

So first thing we did was project kind of at a number of different TACs.

The TAC in 2008 results in a 50 percent probability of spawning stock biomass over SSB at MSY equaling one in 270, which is right there. And the current TAC, which as you know is 220. And the average TAC from 2011 to 2015 was 170. All those are in whole weights.

So then 148 results in a 70 percent probability of recovery by 2017.

And so those are the results presented in the assessment. The CIE review made a couple of comments, and one of their comments resulted in me running a little bit, a couple more models.

And basically, did that because when, one of the reviewers' comments was about the adjusted sample sizes that we used in the model, and that's basically how we tell the model how informative the length compositions are.

And what had happened, when I'd gotten the data I didn't notice that some of the individual set IDs were non-unique, and so that ended up being a underestimation in the overall sample size.

So to rectify that, what we did is we corrected the errors, recalculated the sample size by fishery, and then re-estimated the sample size weighting that we used. And I ran three more models.

These first two are diagnostic PRU, Post Review Update 1, Post Review Update 2, and then Post Review Update 3 is what I would consider the updated base case, and what we as the analysts recommend for management advice.

I'm not going to go into the length record details, but if you have questions they're in here, and also online in the Post Review Update.

So basically, this is showing SEDAR 54 base case, the model that I just presented, here in blue. We revised the sample size, and we got this green line.

Again, in this, in the blue line here we have used the Francis multinomial weighting scheme and, to determine the relative weights.

And so when we did the same thing, we

got the red, the red line here. That's this Post Review Update number 3.

The intermediate one is to look at the effects of down-weighting all the length compositions so that they don't stop us from fitting the CPUE data.

Length compositions. Yup.

They're the same. The fits are the same. Almost everything else is the same, so right now I'm just going to skip to the table of results.

Here we go. There's the SEDAR 54 base case, which estimated the overfish status to be .6. And currently it's at, you know, .77. So that's at, spawning stock fecundity in 2015 over spawning stock fecundity in, at MSY.

And then fishing mortality in 2015 over fishing mortality at MSY went from .75 to .58. However, yeah, so slightly different.

The rest of the results are fairly

similar. F in 2015, 0.5 to 0.04.

For the, so that's basically it.

I'm going to just show the graphical representation of the stock status here. This is the previous base case.

This is when we unweighted everything. This is when we down, or recalculated and unweighted. This is where we down-weighted the estimates, and then this is the updated base case.

Here's the MCMC analysis of that with respect to the MLE, and then also the quantile for that. Don't need to see that.

Did the projections, and the projection results indicate that a total allowable catch in whole weight of 246 tons would result in a 70 percent probability of rebuilding by 2070. That's a 12 percent increase of the current TAC.

Take any questions?

MR. BROOKS: Joel, thank you. That's obviously a tremendous amount of work, and appreciate you pushing through that.

I suspect there may be a few questions for folks. Rusty.

MR. HUDSON: Thank you, Bennett. Thank you, Joel. It's nice to put a face to the voice.

Anyway, one thing I observed is that giant peak with the recreational Mexican on slide nine, and then 16.

First one had to do with numbers - that year, '83, I think is the approximate year of the spike. And in '16 it's pounds.

Now, the good thing is that you see that spike drop way down when you get into the pounds. And that, I believe, is driven, if it's those states just to the south of Brownsville, is that secondary nursery ground that Stewart Springer indicated in his work back in the '30s through the '50s. It's in his 1960 document.

And the times that we get the male and females in there, or the females to drop their pups, they're huge. They're a lot bigger than the animals that we see up in the mid-Atlantic region. Very few people overfished on that.

But based on what I'm seeing with this recreational, they're fishing on pups. And so that's a little bit of a, kind of a fuzzy area for me. Longevity, I don't know what the, all those tags are, but you know, those numbers still are above the oldest tags, I believe.

COASTSPAN. Very big need is off of North Carolina. Since the year 2005, it's been closed seven months out of the year to bottom longline, for sandbar and dusky pup protection. No COASTSPAN.

North of there, south of there. But not there. That's a problem.

Something happened with the Virginia

Longline stuff after 2009. I think there's some change. I can't get to the bottom of that just yet.

The fishing mortality issues, and the recruitment. There's a big spike in 2005, and then there's a big drop-off. The sandbar fishing directed, that took away from most of the fleet. It accounted for half of our large coastal catch, virtually, blacktip being the other from Texas all the way up to New England.

And that being said, there's a smaller quota. There was a payback that went on because of overages there in '06, and then we had to start paying back '07, '08, and then, so at some point we got paid back, and then we could increase a little bit on the sandbar allocation.

But still, via boats, research fishery in certain spots, never more than two or three ever fishing - now they do an even split, between this year it'll be six votes, and if they get into the duskies, and the shutdown, or whatever the difference are, there's protocols that's in place.

The idea of never, ever fish - well, right now our large sandbar population is so intense that it is actually damaging our rebuilding plans for a lot of our bottom fish, and stuff like that.

We'll get on a spot, and in ten minutes, the sandbars start eating everything up.

We also have the problem a little further off with duskies eating everything up. And so those populations are rivaling the 1960s, before we ever had a directed fishery, as far as what we see at the side of the boat. That's the problem.

Francis 2011, that fitting thing, there's weaknesses with that. It's been replaced with the newer updated stuff. We've been going through that protocol since red groupers SEDAR

50, and tile. And there's still some issues that, at times with that.

There's a few other things here that really gets down to the whole weight. Enric, maybe you can answer that. Are we using 2.0 in this analysis, or 1.3 now?

Pretty much, that wraps it up. This is just some of stuff I got.

MR. BROOKS: Thanks, Rusty. Enric?

MR. CORTES: Yeah, let me answer a few of your questions. Some were more like comments. Statements.

So the 1983 peak is, you're very familiar with it. It's that peak from MRFFS that occurred in numbers.

And in the - excuse me - in the past, we used to take the geometric mean of the surrounding years. We've done it for other assessments, and we didn't do it for this because there was only limited re-vetting of older series.

But it typically has not had a big effect, because it's in the early years. So we've done sensitivities for other assessments, and it hasn't had anything with numbers.

For weights, it was not as large. Right.

COASTSPAN, duly noted. That's something that, you know, so it's something that could be added.

There's longline, I mean the analyses were, were redone. That's, that's, again, all these issues are something that, as you know very well, have to be re-evaluated during a benchmark assessment in which we look at every single individual series.

These were redone by any, I mean, it was a good analysis of, there were slight changes with respect to the previous, but no big changes if you remember the comparison on the two from the previous one.

And, right, they have a couple of things before.

So yeah, your observation of, so, so let me just make a comment on the, I mean, you said that we have the babies, right?

And then we, so we have these two other scenarios that were just, you know, a good faith effort to look at potentially other states of nature.

And so what, what Joel showed it, with his positively correlated indices, that they were all showing the same trend - and in this case, were all positively correlated, because they could not be negatively correlated. So they were all showing an increase.

As we said, those were, they covered the larger animals that had the most geographically wide coverage, and also the most coverage of the fisheries - but yet, they were missing all the small individuals.

In contrast, the other, what we call the negatively correlated, is where, and this is the word negatively correlated, or lowly correlated with previous grouping, okay? Or that were lowly correlated among each other.

So those showed a completely opposite picture. So we had three different realities, right.

But the point we're trying to make, and maybe it didn't come through clearly enough in the original assessment, is that the base run is the most credible one in terms of incorporating all the different sets of data as we have it.

And also when we, when he showed the diagnostics, they had the best diagnostics, because retrospective analysis and the likelihood profiles give support to using the, the benchmark.

But it's something that in the future has to be re-evaluated, because you know very well, they have to evaluate every single piece of data that goes into the assessment.

I'll let Joel make a comment about the Francis method, because I know there is also a also a McAllister, and that's a matter of discussion.

Excuse me. In this case ---

MR. BROOKS: Let me, let me just. I want to just jump in for one second.

Just, some of this may be, you may want to answer sort of offline as well, just for the sake of ---

MR. CORTES: But ---

MR. BROOKS: --- keeping us ---

MR. CORTES: Yeah, last point then. The whole weight issue in this case for the commercial, we just used what we had to do. So we just used whatever was expressed in whole weight directly.

But typically, it's the 1.39. And, except for, as you know, cases like North Carolina, and Mississippi, that has a conversion of two. But we didn't change anything in this case.

For the other, that's for the commercial. For the recreational, estimates now come in weight as well, so those come from converting lengths into weight from animals, then you multiply the number by the average weight.

And then the ones from Mexico from the recent period are in, from their official statistics, they come in weight. Those are very broad estimates, though, that we have, as you know.

MR. BROOKS: Thanks very much. Hang on one second. I just want to double check. We have two speakers who are, are here. I want to make sure that if, if you're pushed back a little bit, we're not messing up your schedule.

So Erin and Chelsey, you good? Okay.

All right. Thanks.

Question.

MR. HUDSON: I believe it was mentioned under the terms of reference you constrained and so the full benchmark was suggested, and we believe that is necessary for the next iteration of whatever we're going to do.

But we also need to do the dusky. The reason? The co-occurrence of those animals, and the fact that because of that co-occurrence, until we can find that dusky has no overfishing occurring - that'll take a full benchmark, probably, to achieve, maybe a standard, but that, you know, we, we did an update, that's all we did. And that was technically no fishermen involved, and et cetera.

But I would like to see a full benchmark for both the animals done at the same workshop, and then just work our way through that. It's not an impossible quest, it's something we've done in the past.

And I believe that with full benchmark, it gives us the options to deal with reality versus assumptions that may not be exactly correct.

So just for the record. Thank you.

MR. BROOKS: Thanks, Rusty.

All right, so I've got three people who want to get into the queue. So I've got Katie, then down to Glen, and then over to Bob.

MS. WESTFALL: Thank you very much, Joel and Enric.

Quick question on, it looks like the results from, from the addendum suggested a higher TAC to rebuild by the year 2070 with a 70 percent probability.

SEDAR 21 had a slightly, a rebuilding year of 2066. If you were to maintain the same

TAC without that slight increase, how would that affect the rebuilding year?

MS. BREWSTER-GEISZ: Thanks, Katie. So because our rebuilding year right now is 2070, that is what we ask the assessment scientists to use.

MS. WESTFALL: Is that what it currently is? I had it was 2066, but I could be wrong.

MS. BREWSTER-GEISZ: Yeah, it's 2070.

MS. WESTFALL: Okay. Thank you for that.

My other question is would you, would you say that the results of this updated assessment suggest that the current management approaches are working?

MR. CORTES: Yes. They, they seem to, especially after we did the Post Review Updates. So, I mean, you see that uptick and lack of overfishing that were supported, even when you can see that the three states of nature, the three scenarios, you still have a 66 percent chance of not overfishing.

And if you go exclusively with the base case, it's almost 100 percent.

MR. BROOKS: Thanks very much. Glen.

MR. HOPKINS: Yeah, thank you. First of all, I just want a caveat that this, statistics is not my strong suit. Barely got out of William and Mary because of Stats.

But I was just curious, and, was there an acronym for that experimental shark fishery y'all were doing, and was that included in the, in this assessment?

MR. CORTES: You mean the shark research fishery? Yeah, yeah, so that's, this started with dusky shark, where we split the series in pre-shark research fishery, and then shark research fishery, so initially had one series. But because of the inception of the shark research fishery, we split them.

So those were that BLLOP 1 and BLLOP 2. So the 2, the second one, is, shows upward trend.

MR. HOPKINS: Ah, yeah. Just, just curious, because the people I know that are involved in that are just seeing outrageous numbers. And just, just to make sure that was in there.

I, I, I used to depend on sharks a lot for my income and everything, and I know you guys put a lot of time and work in this, and I'm sure it's all correct. But that's not matching what we're seeing in the ocean by any means at all.

I mean, we've had the discussion already about, can't get fish to the boat. It could be either bottom fish, and tuna fish, and no matter what they're, you know.

And, and I, I know my species, and you know, what I see on the water and stuff, the sandbar, and you know, everything I'm hearing is, is it's exploding. Doesn't indicate that we need another 52 more years.

I've given up years ago on ever having a viable shark fishery again, but just the observations, and one of these days I'd like, like to think that the stock assessment matches, at least in some degree, of what, what we actually see in the ocean.

Thank you.

MR. CORTES: So just a brief comment on that, which is related to what Rusty said.

I mean, when you look at the totality of the information that we have, it doesn't quite show that. When you look, if you were to look at that positive scenario, it essentially shows that, right?

So it's, again, it's, this was only exploratory, and the, the use of those two other scenarios, because if you consider the other one it'd give you a really, you know, dismal picture.

So I mean, I hear you, and you know, it's something that we have to keep looking at in the next assessment, re-vetting even more so than we did, because we spent a lot of time on these, vetting all these CPUE series. And, and we cannot ignore them, you know, if they have been better.

MR. BROOKS: Thanks. Bob.

MR. HUETER: Yeah, thank you. I just have a few clarifying questions.

I'm really glad to see the use of the Mexican data in this, in this assessment. Could you tell me again which Mexican states you used for the, the source of those data?

MR. CORTES: So those come from the same, when you were involved in the exercise back in the day, because this started like in 2002 I believe, series 11.

So it's two adjacent states of,

Tamaulipas and Veracruz, and I'd have to go to the original document to look at all the, the logic that we used.

But essentially, we assumed that all the animals had come, in the case of sandbars, are from, from Mexico, because there are no US fishery -- in contract to the blacktip, where we only assume, if you remember 50 percent.

So we use that, and then based on a certain percentage of sandbar sharks in that specific, those specific states, we apportion the Mexican state-specific stat -- statistics, and we come up with catch value from that.

MR. HUETER: Okay, we're, I'm a little puzzled by that, because the NMFS tagging data clearly shows movements of sandbars from the East coast of the US down the other states as well, down to Tabasco, Campeche, and Yucatan.

So I would encourage you to go ahead and, and include data from those states. I think we did the adjacent state work, Enric, because we were looking, we were focused on blacktips movement up and down the western Gulf.

So, but sandbars move across, according to the, to the tagging data. So I think you need to expand the range of the Mexican data that you're using.

The second -- I have three. The second question is for Joel, on slide 24. I'd just like to know for me, what is the meaning of the figure N_{2009}? About two-thirds, three-quarters of the way down. Is that ---

MR. RICE: That's the ---

MR. HUETER: --- all of the animals in the stock? Is that the females? What does that number refer to?

MR. RICE: Yeah, that's the number of, well, I'll have to, to check. But I'm pretty sure it's the number of animals in the stock.

MR. HUETER: So of, at all ages.

MR. RICE: Yep.

MR. HUETER: Okay. So 1.8 million sandbars are estimated to be in the stock according to that run.

And the last question, on slide 30 the, the Bottom Longline Observer Program data on the left -- to my eye that indicates that there's, there was, according to this one run, that there was a greater than three times increase in abundance in sandbars in that, in that index between the 2000s and the 2010s? Am I reading that right?

And what does that mean, given that that fishery, that index probably is one of the best for, for gauging the health of the stock, being that that's the directed fishery, and it's fishing in the core, by its very nature, core of the population?

MR. RICE: So there's a couple things to note there. But the, the first is that the green line is a combined index, right, and then the, the black lines are independently standardizing the indices there.

And so they're projected to be on the same scale, but they're not, it's not continuous in between the, what we call the Bottom Longline Observer Program 1 and the Bottom Longline Observer Program 2.

Now, definitely there's a different scale in between the two of them, and there's also, you know, some high, and are -- more variable results in, in the second one.

And while it is fishing, potentially, in the core, you could, some people would also look at that and say you're, you're targeting these sharks, and so of course you're going to get higher catch rates than some of the other surveys where you're actually sampling the abundance across the entire species- the entire range.

I think it is important to note that if we didn't have that last year's data, the population trajectory at the end would have, would have dropped, you know, 25 percent from the previous year.

Overall, I think the interpretation of, of this CPUE series, or these combined CPUE series needs to be taken into account when, when you look at also the, the trends of the other populations, especially, especially the, the young of the year.

What we don't want to have happen is the catch rates going up because as sharks are getting fished out in the margins of the population, they're moving to a core area, and so you, it looks like your catch rates are going up when in fact your population's actually going down.

That's it.

MR. BROOKS: Thank you ---

MR. CORTES: Bob, to your first point, about Mexico, the states included, I actually checked, and I mis-spoke. I got myself confused.

It included Yucatan as well. The states in between, I don't remember why, because there's a legacy from 2002. So I don't remember why they were not included. Maybe they were not available at the time, but this seems to indicate that yes, we did try to take into account the whole area.

MR. BROOKS: All right. I'm going to hold off on any other questions at this point, because we are getting seriously off, off agenda, and need to get to our next presenters.

Karyl wants to just give a 30 second, or 10 cent update -- 10 second update on assessments to come, and then I, maybe if our next speakers can step up here.

MS. BREWSTER-GEISZ: So I won't even bother bringing up the slides. If you take a look at the next presentation, on the webpage there is the slide about the assessments. The first few slides are just where we're at now in terms of stock status for all the different management groups.

And then the second-to-last slide, the one right before the questions, has the stock assessments we were planning to do in the future. I know that question comes up all the time.

If you need additional information on any of that, feel free to see me during lunch or in the afternoon. Thanks.

MR. BROOKS: So Enric and Joel, thank you both very much for the really detailed presentation. And I know you get clipped in time, but we appreciate it.

Just for folks who are wondering when we're going to let you go to lunch, and if we're ever going to let you go to lunch, we will. But it's probably going to be closer to 12:15, maybe even 12:30. So count on a shorter, a shorter lunchtime for today.

So at this point, I want to introduce two other speakers from the Office of Protected Resources. We'll have two updates. One, we'll hear from Chelsey Young on oceanic whitetip shark Endangered Species Act listing, and then we'll hear from Erin Fougeres on the Pelagic Longline Take Reduction Team.

MS. FOUGERES: I'm actually going to go first.

MR. BROOKS: You're going to go first? Okay, Erin's first.

MS. FOUGERES: Here we go. I'm the Pelagic Longline Take Reduction team coordinator in the NMFS Southeast Region, Protected Resources Division.

And the Pelagic Longline Take Reduction team is under the Marine Mammal Protection Act. And just as a little background, or refresher, the Marine Mammal Protection Act was enacted in 1972. It prohibits the take of marine mammals with limited exceptions for things like commercial fishing.

Take means to hunt, harass, capture, or kill, or to attempt to do so. And the protection is extended to all marine mammals, regardless of their status -- that is, whether they're endangered or not.

The key MMPA goals are to maintain marine mammals as functioning elements of their ecosystems, obtain optimal sustainable population levels for all marine mammals, and to reduce serious injury and mortality, or bycatch, of marine mammals incidental to commercial fishing operations to insignificant levels.

So the strategy for reducing bycatch of marine mammals involves preparing stock assessment reports, categorizing fisheries according to levels of bycatch, which is the list of fisheries that comes out, registering participants in Category I and II fisheries under the Marine Mammal Authorization Program, monitoring Category I and II fisheries, which is the observer program to require fishermen to report all injuries and mortalities, and to develop take reduction plans.

Take reduction planning is based on stock assessment reports, and they're designed to assist in the recovery or to prevent the depletion of what are called strategic stocks that interact with Category I or II fisheries.

And NMFS may also develop plans for any stock -- it doesn't have to be strategic -- that interacts with a Category I fishery.

So just as background and timeline for the Pelagic Longline Take Reduction Team, it was established in June of 2005, and after a number of meetings and full team conference calls, the team developed consensus recommendations, which went out as a proposed rule and then a final rule which because effective in June of 2009.

Those are the current Pelagic Longline Take Reduction Plan regulatory requirements, and I've listed those here.

So the, the first is obviously the mainline link restriction, which is in the EEZ portion of the Mid-Atlantic Bite, and also in the Cape Hatteras Special Research Area, which is within that area.

It established the Cape Hatteras Special Research Area with special observer and research participation requirements, and then it requires the posting of marine mammal handing and release placards in the US Atlantic EEZ, and in the, obviously, the, the EEZ portion of the Mid-Atlantic Bite, which is within that area.

So since that time that the plan became effective in 2009, we've been monitoring and having intermittent team meetings and conference calls to monitor the effectiveness of the plan at reducing primarily bycatch of short fin pilot whales, which are the animals that most interact with the Pelagic Longline Fishery, and are of most concern.

And it was determined over those sort of intervening six to seven years that the, the plan really wasn't effective at reducing bycatch.

So as a result, we did reconvene the team for an in person meeting in December of 2015 to discuss updated bycatch levels, review the effectiveness of the current regulations, and to potentially develop new recommendations for regulations.

As an outcome of that meeting, in December of 2015, the team did come to consensus for new recommendations for non-regulatory and regulatory requirements, at which point we started our rule writing process.

And through that, there were a few

issues that came up, and reconvened the team via webinar in September and October of 2016 to refine some of those recommendations. And these are the recommendations that sort of were an outcome of those, those year-long sort of conversations.

So based on the deliberations, the team did agree to a full suite of consensus recommendations, which included non-regulatory measures, which were convening a workgroup to recommend changes and updates to the current handling and safe release protocols for marine mammals, and updating our observer protocols and data recording forms to enable recording and analysis of data on pilot whale and marine mammal bycatch events, and on target catch depredation events.

The regulatory measures were to repeal the Cape Hatteras Special Research Area, and any associated call-in requirement under the take reduction plan.

There were terminal gear requirements that would occur in the FEC, the South Atlantic Bite, the Mid-Atlantic Bite, and the Northeast Coastal.

And that was leader and branch land requirements, and weaker hooks, using some hooks that are currently used in the fishery, but not some of the stronger hooks that are in the fishery right now.

And then also to modify the mainline length restrictions in the Mid-Atlantic Bite to set no more than 30 nautical miles of active gear, and no more than one piece of main line in the water at once. And there are some other variables associated with that regulation.

And you can find more information on all these recommendations on the Pelagic Longline Take Reduction Team website. All the key outcomes and memorandums from those meetings do detail the consensus recommendations.

So the next steps for us are that we are in the process of drafting the proposed rule, and the associated NEPA analysis, the EA, to implement the team's recommendations.

And we plan to finalize and publish the proposed rule. And then after that is published, we'll have a public comment, a meeting during the, of the team during the public comment period for the proposed rule.

Then as rulemaking, we would evaluate those public comments after they're received, and potentially put forth a, a final rule. So that's, but we're still in the developing the proposed rule phase.

And then because I'm here, my office also wanted me just to put this up here just for general knowledge.

So I just have a couple of slides, switching gears, on the proposed ESA listing of the Gulf of Mexico Bryde's whales, just to make everyone aware that this is another thing that's going on right now.

And we did receive a petition to list the Bryde's whale as an endangered species in September of 2014. And after status review, it was determined that that whale is a species, as defined by the ESA, that is currently in danger of extinction throughout all of its range.

So this is kind of where we are in the ESA listing process and timeline. So there was the petition, the 90 day finding, the status review, the proposed rule published in December 2016. And we had a public comment period that closed around this time last year.

And we're in the process of developing the final rule, and that is pending.

So just some key biological information on the Bryde's whale. They're the only year-round baleen whale that's resident in the Gulf. They're consistently located in that little yellow area that's, the arrow is pointing to up off the De Soto Canyon, along the shelf break between the 100 and 300 meters.

There's fewer than 100 individuals, and they are genetically distinct from all other Bryde's whales worldwide, and represent at least an unnamed subspecies.

And within that proposed rule, we did identify some of the most serious threats to the subspecies as small population size, restricted range, energy exploration and development, oil spills and oil spill response, vessel collision, and anthropogenic noise.

And we did also identify bottom longline and pelagic longline as entanglement risks to Bryde's whale where they overlap within their habitat.

And the link on this slide gives you a link to an FAQ sheet on the Bryde's whales, and the rule development and, and all of that stuff. And it's not my area of expertise, so I can't really super-adequately answer questions on that one. But we did just want to make you aware of it.

And that's all I've got.

MR. BROOKS: Thanks, Erin. Any questions or --- Question, would you hit the mic there for --

MS. FOUGERES: Oh!

MR. BROOKS: Thanks.

Any questions or comments for Erin? I've got Marty, and then over to Bob.

MR. SCANLON: Do you, do you have any data on what the impact of the Deepwater Horizon disaster had on those, on that species? Do you have any data on that?

MS. FOUGERES: Yes. So the Bryde's whales were included in the Deepwater Horizon natural resource damage assessment, and the, if you look at the, the damage assessment and restoration plan that was kind of the thing that came out of the whole investigation to the, to the Deepwater Horizon oil spill, you can see the impact to Bryde's whales.

I don't know it off the top of my head, but there's a table in there that says the proportion of the population that was estimated to be impacted by that. Yeah.

MR. BROOKS: Thanks. Bob, did you have your card up before, or no? Okay.

Any other -- Mike.

MR. PIERDINOCK: Thank you for your presentation. I, you know, I appreciate the fact you're taking appropriate efforts to try to protect our marine mammals.

But up in Massachusetts and Cape Cod, we have an upside down situation that, you know, in early 2000 we had 1500 gray seals, and we're now at the point of 50,000-plus that are found north of the Cape, out to the Cape.

On Muskegon Island itself, there's 30,000 of them. And they're also on the South Shore, and the south coast of Massachusetts.

We're being told the Marine Mammal Protection Act is such that nothing can be done about this population until it returns to levels up and down the coast that, whenever those levels were established, that that's at the point that something could be done to potentially cull the herd.

You know, we ultimately, if you look at those 50,000 seals and what they're eating, it's, it's tremendous amount of fish. And from an ecosystem-based management, it, it's have a detriment on our fishery.

I'm curious, the longline fleet that's up our neck of the woods is farther offshore, whether there's been additional interactions as a result of those seals. That's the one thing.

Other thing I want to note is, is that in our state, we have concerns about the fact that the fecal material from the, the seals, it's, there's a direct correlation between the worms we see in cod, we now see them in haddock - it's jumping over to them.

And then we're also seeing, from what I'm being told, parasites in pelagics, or sharks, that typically would not be observed that they think may be linked from the seals.

So I share that with you, and would like to have some insight from a longline insight, as well as from the other end - what could be done for us, because it, it's an, it is an upside-down situation where they're eating tremendous numbers, and pounds of fish. And it's having a detriment on the entire ecosystem.

Thank you.

MS. FOUGERES: Sure. So that's not really my area of expertise. I'm, I'm not aware of increased interactions with gray seals and longline gear. I haven't been made aware of that, you know, as a, as an issue.

But yeah, okay. So as a, but I do primarily deal with the shortfin pilot whales in, in the Southeast region. So I'm not, you know, as familiar. I apologize.

But I, I can certainly talk to you afterwards, and recommend someone that you could speak to up there about those issues.

MR. BROOKS: Thanks. Tim?

MR. PICKETT: How are you defining mainline length? Is it a linear length of the set, or is it a length of the piece of string?

MS. FOUGERES: So we, it's complicated. And so the mainline length restriction is a restriction that the team strongly recommended during their deliberations prior to the, to the current plan that we have in place.

And we were very clear with them at

the time that we actually don't have a good way of enforcing that regulation, because it's very hard to measure mainline length.

And so, you know, it is a linear length essentially, and, and the way that we currently look at it, to get kind of a ballpark is, you know, when the set starts and when the set ends, and how fast you're going kind of thing.

So, but there really isn't, you know, a great way to measure it.

MR. KERSTETTER: David Kerstetter. Yeah, to, to that point, because I was on the team, and we ---

MS. FOUGERES: Yeah.

MR. KERSTETTER: --- had those deliberations.

MS. FOUGERES: Thanks, David.

MR. KERSTETTER: In fact, I did a paper on the different metrics for measuring the length of a longline.

And what it really came down to was an analysis of the logbook, and Observer Program data that seemed to show a clear break in the data. You know, whatever method was used to measure that mainline length, you know, how, whatever it was reported as, showed a distinct break from, above and below that number, in terms of pilot whale interactions.

So we kind of recognize that it's a difficult thing to measure. There's almost no way to enforce it. So, you know, I've always treated it as almost an aspirational goal, more than anything, to try to keep mainline set length, however you do it, minimized in that area.

MR. BROOKS: Marty, I'll let you jump in one more time, and then we should probably hand it ---

MR. SCANLON: Yeah ---

MR. BROOKS: --- off to Chelsey.

MR. SCANLON: --- the, the mainline length, you know, as we understood it as a team, is that, you know, you're not going to be able to determine it by, to the inch, you know.

But it's basically a parameter that, you know, you'll have an understanding whether or not somebody's dramatically exceeding, or trying to circumvent the rule.

The way, you know, the way the Observer Program takes it, and with the VMS units on the boat now, where they, you know, all of that stuff combined, you have a pretty damn close determination of, it's pretty close to going to be what you've got there.

MR. BROOKS: Erin, thank you very much. Appreciate it.

So now we're going to hear from Chelsey Young again on oceanic whitetip shark Endangered Species Act listing. Chelsey?

MS. YOUNG: Great. Hi, good afternoon

everyone.

I will try to keep this as short as possible so we can, you guys can get off to lunch.

My name is Chelsey Young. I work for NOAA Fishery's Office of Protected Resources in our Headquarters Office right here in Silver Spring, and I was the lead biologist working on this listing response for the oceanic whitetip shark.

And today, I want to give you just a little bit of background about the listing process, what went into this decision, some of the next steps that we have in front of us, and potential implications.

So I know this is not your first time hearing about endangered species listing, so I will be really brief here.

The main purpose of the Endangered Species Act is to provide a conservation program for threatened and endangered species, and to conserve the ecosystems on which they depend -- and of course, the two main definitions that we work with when doing a listing determination is endangered and threatened species.

So just to give you a refresher of what those mean, endangered species are any species that are in danger of extinction throughout all, or a significant portion of its range, and a threatened species is any one that is likely to become an endangered species within the foreseeable future.

So the definitions are very closely linked, and the only real difference between them is the timing at which this endangerment is happening. For endangered species, it's more of a present-day, imminent thing. And for a threatened species, it's more of something that we can foresee happening in the future.

So this slide just basically shows a schematic of our listing process. I think Erin showed something kind of similar with the Bryde's whale.

I won't go through all the steps, but basically it just shows that there is a very stepwise process that we follow in our listing determinations. And anytime we list a petition to list a species, it really triggers a whole host of statutory requirements and deadlines that we have to follow under the law.

But one thing I do like to point out here is the public comment periods that we do have throughout the process. This shows from start to finish, from the time we receive a petition through proposed and final rulemakings.

And during these public comment periods, we really are looking for information that can help us inform our decision of whether or not the species meets the definition of threatened or endangered as I just read them to you on the previous slide.

And that's the only question that we're allowed to ask and answer during this process.

We can't ask whether or not the ESA's the right conservation tool, we can't consider socioeconomic or cultural implications. The only thing we are looking at is the best available science that will allow us to determine whether or not this species qualifies as threatened or endangered.

So to give you some background and timeline of this particular listing process, we received a petition to list the oceanic whitetip shark from Defenders of Wildlife back in September of 2015.

They asked us to list the species either globally, or to divide it up into two distinct populations - that being the Atlantic and the Indo-Pacific.

And at our 90-day finding stage, we

went forward with a positive review of the global species in January of 2016, at which point we convened what we call an extinction risk analysis, or ERA team, in July of 2016.

And that comprised of six members from across NOAA. So we had myself from the Office of Protected Resources, we had a representative from the, our Highly Migratory Species Division, and we had four fisheries biologists with expertise in shark biology, management, population, stock assessments from the Northeast, Southeast, Southwest, and Pacific Islands Fishery Science Centers.

So we really wanted to have a representative on that team from every NOAA region where this species occurs.

Once we compiled the status review report, which is all of the information on the status of the species, its threats, its management, we sent this out for peer review to five peer reviewers with expertise in shark populations, and oceanic whitetips in particular.

And this is kind of unusual. We usually shoot for three peer reviewers, but in this case we got five from all across the range, and we also had our regional reviews from the Pacific Islands Regional Office, as well as HMS.

We published our proposed rule to list the species as threatened in December of 2016. We finalized that in, just this year, in January, and as you can see the effective date of March 1 just passed a week ago today.

So a little bit about the oceanic whitetip shark if you're not particularly familiar with the species. It is globally distributed, so we did have to look at the status of the species across its entire range, which is a really difficult task.

It has a clear preference for open ocean waters. It is a pelagic species between

10 degrees south and 10 degrees north, which are those tropical latitudes that straddle the Equator.

It has a depth distribution of the upper mixed layer, up to about 152 meters, but it does tend to dwell in the surface layer, so that is partly why it has such a high encounter rate with commercial fisheries. And then it also has a preference for warm waters about 20 degrees Celsius.

So as you can see, from the horizontal and vertical distribution of this species, it completely overlaps where the highest level of fishing effort occurs in most of its range.

We also had to consider the life history parameters of the species. So it's relatively long-lived, and the oldest observed species was about 20 years old, but they think that they can live a little bit longer than that.

They have relatively late age of

maturity. It's slightly different depending on geographical area, so six to seven years for both sexes was determined for the Southwest Atlantic, and more recently, eight to nine years for females in the North Pacific.

They have a gestation period between nine and 12 months, and relatively low fecundity, being that they give birth to about five to six pups, and it's thought that they have biennial reproductive period. So every other year.

I'm not going to get into all of the details of this graph or table here, just because it's a very simplified version of the information we had on the population status and trends of the species across its range.

But we did break up the global distribution into these different ranges, and had a lot of piecemeal information about what was going on. We had pretty decent information for the Northwest Atlantic. Not so much for the

South Atlantic. And we had pretty robust information, relatively speaking, across the Pacific.

So as you can see, we have the percentage declines here over in this column, and across the entire Pacific Ocean basin, we had 80 to 95 percent declines, and that was based on observer data from both longline and purse seine fisheries.

We have pretty large historical declines across the Atlantic as well, but as you can see here, the current trend, we think, is likely stable for the Northwest Atlantic.

And then the Indian Ocean is pretty much a black hole. We don't really know a whole lot about what's going on there.

But the information that we were able to ascertain basically showed a similar pattern - that these guys were very abundant historically at the onset of industrial fishing, and they have experienced very significant declines to the point where they're now considered pretty rare.

So as I've alluded to along the way, the main threat to this species is overutilization in commercial fisheries, in particular bycatch and the international fin trade.

So the oceanic whitetip is caught in large numbers globally wherever it occurs in longline and purse seine fisheries. And the large majority of the specimens that are caught are juveniles, so they're not able to reach reproductive age before they're caught.

They have a varying at-vessel mortality rate depending on the geographic range. So the low end, 23 percent, is actually representative of the Northwest Atlantic. The 58 percent is the higher end for the Indian Ocean.

So this is not really surprising, since we have, you know, safe release handling guidelines, and things like that for our fisheries.

And then we think probably greater than 85 percent at purse seine fisheries. And one of the things we don't really know is what the post-release mortality rate is for these guys once they're released.

And the other component to this is the international fin trade. This species is considered a preferred species for its fins. It has these large, paddle-like fins that get quite a bit of money per kilogram in the Hong Kong market, and so that's been an economic driver in the past for finning these species.

And it comprises approximately two percent of the global fin trade, which doesn't sound like a lot, but it translates to several hundred thousand to up to 1.2 million individuals per year.

So the other thing we looked at was

whether or not the current regulations that are out there are adequate for the species. One thing to note is that this species-specific regulations have increased significantly for this species.

It's the only shark that's been prohibited from being retained in every RMFO, and that really underscores its conservation status, that every single RFMO went through that process to implement that.

We did find some issues that, you know, the, the main thing is that there's variable implementation enforcement, mostly out in the Indo-Pacific. And so we found that these, these retention bans are partially effective.

This is a similar issue with finning bans and regulations. You know, not all countries across the large range of this species is following these things.

It is listed in Appendix II of CITES,

however, when we looked into the data, we did find that there have been several confiscated shipments to Hong Kong of fins from oceanic whitetips without the proper CITES paperwork or permitting.

And we've also found a number of reports of oceanic whitetip fins being confiscated on a number of vessels fishing illegally in areas, and things like that.

So basically this species, we still find that it is in the fin trade, and it's being utilized for that purpose.

So given all of that information, again, it's a very big distillation of the information that we had in our status review, we considered a foreseeable future of approximately 30 years -- that's to take into account the life history and the longevity of the species, as well as how far out we felt we could reasonably predict what was going to happen with threats.

The big issue here is a significant historical and ongoing abundance declines in all three ocean basins, its life history characteristics, ongoing threats of overutilization, and largely inadequate regulations to protect the species.

We came to a moderate risk of extinction, which led us to go with a proposed and final threatened listing under the Endangered Species Act.

So what happens next? So this species is listed as Threatened, so that means in order for us to implement any additional protective regulations to prohibit take, or anything like that, we'd actually have to go through a separate rulemaking process with public comment, and input, and all of those things.

So really, the first thing that comes into play here is Section 7, consultations under the Endangered Species Act. And this is required for any federal action, such as federal fisheries, that may affect the species.

And these consultations are actually already underway for the Atlantic HMS Pelagic Longline Fishery, and all other gears.

One thing that is required after listing is to designate critical habitat. Usually, we're supposed to designate that at the same time of the final listing, but we implemented a one year extension, because we just don't have enough information to determine what is critical to this species.

We don't know what its habitat requirements are, aside from a temperature preference at this point. And any critical habitat designation would also go through a separate rulemaking process that would be open for public comment and input.

I mentioned the protective regulations. We call them a 4(d) rule. We're not developing one at this time. We may consider certain things in the future.

One thing I want to drive home here is that the 4(d) rules are very customizable. We can tailor them for specific threats in specific regions, so it doesn't have to be a blanket, across the range type of regulation.

And last but not least, recovery planning is also something required under the act. It's non-regulatory, it's just developing a guideline, basically, for actions that we can take to help recover the species and get it off the list.

So implications, which I know is what most people are interested in. Take is currently not prohibited under this listing. As I mentioned, we haven't done a 4(d) regulation at this point.

So U.S. fishermen do not have to do anything under current laws -- excuse me -- when they accidentally interact or catch an oceanic whitetip. So U.S. fishermen will just continue to operate under federal fisheries regulations and RMFO measures that you're already subject to.

And again, fisheries that may affect the oceanic whitetip will just undergo Section 7 consultation.

So that's it. Any questions?

MR. BROOKS: Thanks very much. Let's take a couple of questions. Chelsey, can we ---

MS. YOUNG: Sorry.

MR. BROOKS: --- cut your mic? Thanks.

All right. Scott, then up to Rusty, and then down to Bob.

MR. TAYLOR: So it's kind of a combination of question and comment. This goes along the same question that the seal question from the prior presenter.

When -- if it could be demonstrated that, that as this pertains to the US, this ESA listing, that either the information is inaccurate or flawed, is there, how is, what does the mechanism look like to get it unlisted?

This is clearly not a harvestable species for us. Never was really a problem. But it's near and dear, because this is a pelagic species that probably not many other fisheries, if any other fishery is going to interact with, other than the Pelagic Longline Fishery.

And that I can tell you, you're only going to find these animals if you look for them where they are. Anybody that fishes the Bahamas, or has been down off of Cat Island or Cat Key, I wouldn't get in the water, okay?

The, we had boats down in the Southern Caribbean, which I didn't see on your area listing at all, that we saw such a proliferation of these animals down there that we literally could not fish.

Animals as big as submarines, and huge

numbers, okay, in US Caribbean waters - you know, areas south of Puerto Rico, the Aves Ridge. All the way down through there, there is a huge population of these whitetips that weren't even taken into consideration.

So, you know that, I would agree that, that where we generally longline fish out there, we have, we're not seeing a lot of animals, and the U.S. is certainly not the problem.

But this sort of goes to the same discussions that we were having yesterday, which is, you know, we put these things in place, but there never seems to be any exit strategy for them.

MR. BROOKS: So, Scott, I'm going to jump in just to reframe your question, which it sounded like it is, it, what's the process to revisit the status if additional data can be brought in? Correct?

Chelsey?

MS. YOUNG: Yep. So we're required to look at the status of species once they're listed every five years. So once that happens, any new information that we get, we can consider in that.

And we go through the same process, the same kind of status review that we did before, and include any information.

So at that point, we would be able to make a different assessment to see, well, did we make a mistake? Was their information in error? Things like that.

And we have de-listed species because of that. But as you mention, this is, so, so just to step back -- for the Northwest Atlantic, that included the Caribbean. That was based on the Northwest Pelagic Longline Observer data. So it did include those areas.

If there are things that we're not seeing, then that's where we really need input and information from you guys that are out there seeing these things, and that is definitely something that we can take into consideration.

MR. TAYLOR: Just a quick response, I don't think that you have much pelagic longline observer data out of the Caribbean, because it's been a long time.

I mean, Marcos could maybe answer that better than I could, but I think it's been a long time. I know that the boats that we had down in there were some of the few boats that were actually fishing down in that area for quite some time.

And I'm not so sure that we actually had an observer down there, but it's a significant population.

MR. BROOKS: Scott. Rusty.

MR. HUDSON: Thank you. Chelsey, thank you for the presentation. I did submit comments through the years, and I had asked for a distinct population segment, simply because, as was noted, we've made a lot of changes that eliminated the mortalities from fishing -- particularly off of Florida, because they're a warmer water animal with a year-round closure in US waters.

What he mentioned about Puerto Rico, we've heard that a lot. Particularly between there and Dominican Republic, there's a lot of full-grown oceanic whitetips.

The last thing I have a question about was the two percent valuation, and was that just using like Hong Kong numbers or something? Is that a valuation built on pounds or dollars?

MS. YOUNG: So the, the study that looked at the composition of the shark fin trade was done back in 2006. It was a paper by Shelley Clarke that looked at genetic samplings of the markets.

And I do believe it was limited to the Hong Kong market, as that was the largest and most significant market in Southeast Asia. I do believe it is transitioning away from Hong Kong in recent years, but back -- well, this is 12 years ago -- that is the, the biggest market where they did the study.

And as far as the DPS question -- so we did, and thank you for your comments. I remember you calling me on the phone. And we did look at the DPSs.

It was something that was requested, actually, by the petitioner, and they submitted comments as well, wanting us to look at that issue.

Regulation differences is something that we can look at, but identifying DPSs is a very complex policy process that we go through, and when we looked at the genetics and the tagging data, we just didn't have enough information just yet to be able to identify the Northwest Atlantic population as a DPS.

MR. HUDSON: With Hong Kong, what goes to the auction isn't necessarily all the prime fin. Sandbar, dusky, oceanic whitetip, great hammerhead dorsal, the needle inside of the, the needle inside of the fins is demanded with a higher-value price, and a lot of times, spoken for. Never goes through the auction.

And you're right. There is a transition. I'm very familiar with Chelsey's work --- not Chelsey, but Shelley's work with regards to the 2006, and then she's updated some of that for the FEO thing from 2015. But that only goes through 2011, and remember that 2006 stuff only went -- so that's a lot of dated information.

And a lot of people keep using that. We need updated information. Thank you very much.

MR. BROOKS: Bob.

MR. HUETER: Thank you. Thanks,

Chelsey.

First, a quick note on the depth range of the oceanic whitetip. It is true that they spend the great majority of their time in waters less than 200 meters deep.

But satellite, published satellite tag studies have shown dives down to more than 1,000 meters. So keep that in mind in terms of possible interactions with deeper gear.

Maybe this is a question for Randy, but I, I've always questioned why oceanic whitetips have not been listed as a prohibited species, given all this that we've known for a long time.

It, it is still an authorized species with these restrictions -- can't be kept by pelagic longliners, and can't be kept by recreational guys if they have other HMS on board.

But why, are we going to finally now

use this listing to move it down to the prohibited species category once and for all?

MR. BLANKINSHIP: I am going to look to Karyl for assistance with this answer.

(Laughter.)

MR. BROOKS: It's the joy of wearing the hat, you know?

MS. BREWSTER-GEISZ: Thanks, Randy. Thanks, Bob.

So as you know, in our regulations, we have four criteria in order to consider before we list anything as a prohibited species.

Right now, oceanic whitetip, as you said, are an authorized species. We do not really see them anywhere in our landings. So there hasn't really been a need to list it as prohibited species.

But it is something we can consider in the future now that they're listed. We do have a, you know, as you know, scalloped hammerhead in the Caribbean is also an ESA species now that we're also thinking about, and trying to figure out what to do.

But we are also waiting for the Section 7 consultation to complete.

MR. BROOKS: Thanks. I'm going to take three more speakers, and then we'll get you to lunch. So we'll go to Sonja then down to Marcos and then over to Bob.

MS. FORDHAM: Thank you. Thanks for the presentation. I was going to say what Bob said, so I appreciate Carol's answer on that.

I have one slightly, just small correction on the, it's true that this species stands out with global protection, in terms of prohibitions at RFMOs. But it's just the four major tuna RFMOs, not all RFMOs. Not that they're that relevant, but just that are a lot more RFMOs.

And you, I appreciate the review of

the inadequate regulations. I just had a couple questions. Maybe I'll just shoot them all out, and you can answer them later.

But I know the U.S. is doing a lot of workshops to improve the implementation of the CITES listings for sharks, and it's a bit hard to keep track. I wonder if you know, or maybe we can find out tomorrow, if there are any non-detriment finding yet for, for oceanic whitetip?

And I think in general, a sort of universal goal of the conservationists, in terms of global shark conservation, is to get government, environment and Protected Resources officials working more closely with fisheries agencies.

And I think the US probably does that better than most, but I think there's still for improvement and increased integration.

So to that, I'm just wondering if Protected Resources is having any type of, maybe somewhat formalized process to work with the NOAA people that go to RFMO meetings to see if we can work together to improve compliance on those TRFMO prohibitions. I think that would be a really helpful addition.

And then my last question is just, I assume, with the recovery planning, that you're going to form a recovery team of stakeholders, and I just was wondering about the timeline for that.

Thanks.

MS. YOUNG: Okay. I'll see if I can answer them all in order.

The first one, about non-detriment findings, I'm not, I only am aware of one so far, only because I came across it in my research in between the proposed and final rules, and that was from India. And so I, I can't give you the details. I don't remember it off the top of my head. But they're, I think that is the only one that has been submitted so far.

As far as working more closely with fisheries organizations, I think that is where having a recovery plan in place will help us to be able to do that, and there is certainly an intention to do that with this species.

We are talking about potentially convening a team. We're, we're still in the very initial stages of discussion, but I will be the lead person for recovery coordination for this species, so that is something that I will make a priority for myself and for our office.

So I think that got to all of your questions? Yes. Okay.

MR. BROOKS: Thanks. Marcos and then Bob, and I'll ask you both to be as focused as you can so we can get to lunch.

MR. HANKE: Just to report that there is some interactions, also, with the artisanal and the recreational fishermen with the white, oceanic whitetip on north coast of Puerto Rico. And is very needed -- and some scalloped hammerhead, too.

And it's needed, outreach and education, and use maybe the council level to educate the community down there. This is part, part of the things that we really need on the Caribbean region. Thank you.

MS. YOUNG: So I will be back tomorrow to talk about SPAW protocol listings, which the oceanic whitetip was just also added, and that will be also a very helpful vehicle for getting that information down to the Caribbean, and the folks down there. So I will be talking about that tomorrow. Thank you.

MR. BROOKS: Bob, do you have a point on this?

MR. HUETER: Just a quick point of information to add to that. We work on the, in Cuba and on the north Cuba coast, there are also oceanic whitetip, especially the very, very, very young. It looks like it's a nursery, a pupping ground for them on that north coast.

MR. BROOKS: And then over to Bob.

MR. BOGAN: I'll be brief. Just a cautionary tale. I, Mike brought up dogfish and the seals.

And I know we're, we're concentrating on the apex of predators. My concern is that, you know, a few years ago, we protected the dogfish. And it seems to me like they decimated, from my experience, the groundfish.

So if we do something, it's got to be in small increments. Got to be careful.

MR. BROOKS: Thanks. Thanks, Chelsey, very much. Thanks, everyone, for staying so focused through a lot of things this morning.

We have a very busy afternoon, so we are going to ask folks to be back in an hour for lunch. So we will reconvene at 1:30, and we're going to be diving into the Amendment 7 three-year review.

So thanks to everyone, and all the speakers. Thanks.

(Whereupon, the above-entitled matter went off the record at 12:32 p.m. and resumed at 1:38 p.m.)

MR. BROOKS: All right, we're going to get going, because we have a lot to do this afternoon. Okay, if I can get everyone to grab their seats, please? All right, so if I can get everyone to find their seats and focus up here, appreciate that.

So just so we all know that we are under one constraint: This afternoon, the hotel is going to be turning this room into an evening event space, so that means we really need to adjourn at 5:30. So we don't have the flexibility to bleed to 5:45 or 6:00, although I know we all may want to do that. We don't have that option, so we're all going to have to work to keep ourselves on track. We have a number of important topics to cover this afternoon, so let's just dive in. We'll start off by handing it to Tom Warren, to give us an overview of the Amendment 7 three year review.

MR. WARREN: Thank you, Bennett. My name is Tom Warren with HMS in Gloucester. Let me know you can't hear me adequately. This is going to be a brief status update of the three-year review of the individual bluefin quota program, and I'll be showing you some preliminary data. As you may be aware, the Magnuson-Stevens Act requires a formal review of all catch share programs, and so we're in the middle of this process currently.

An overview of the elements of a three-year review: The purpose is to describe and analyze the impacts of the IBQ Program since the baseline period. We're defining the baseline period as the three years prior to implementation, and comparing that to the three years subsequent, determining whether the goals of the program have been met, and evaluating the various elements of the catch share program.

In the timing of this review, we've given you some updates last year, we laid out our plan and schedule. So this is the first time we'll be showing you extensive data. We are targeting the draft document to be completed this fall, and then next spring will be the final document.

There's been an extensive amount of data compiled. I'm going to do a pretty brief overview today to expose you to the type and scope of the data, kind of perk your interest and hopefully your questions. I won't be diving in too deep, but I'll hopefully give you an example of what's out there.

So, preliminary data: why

preliminary? We're soliciting your input for ideas on how to evaluate this program: whether the objectives were met, what type of data is used, what could we use, and how to use the data best. Also, the 2017 data -- the third year of the review -- is not complete, specifically, logbook data, as an example.

What we do have complete is a draft introduction to the document, to give you an idea of the narrative and how that document will start. We have the data divided into various chapters. As you go through this presentation, you can see different types of chapters, and you can consider how we can use it to evaluate the IBQ Program, and what other data might be useful.

The objectives of the program, briefly, as this is an abridged version: Limit bluefin tuna catch with longline gear; provide incentives to avoid bluefin; provide flexibility in the fishing operations; optimize fishing opportunity; and balance such impacts on the other permit categories.

The longline fishery does not take place in a vacuum, and there are interactions, notably through quota allocations, etc., with the other fisheries.

So this is an example of one of the chapter headings in this data presentation in dark blue. The white font is actually what I will be showing you, and the small yellow font provides a description of the data that's available online. You can access it through the agenda, and there's extensive other data that's also available, and I encourage you to look at that. Again, these are just samplings.

So there are multiple types of allocations that occur each year: the January 1 allocation, potential transfers from the Reserve category that have occurred, and also a potential bump-up due to an ICCAT baseline or quota change.

One thing to note is, all the January 1 allocations occur to all eligible shareholders that are associated with a vessel. So there are 136 eligible shareholders defined by Amendment 7, but only a subset of that are allocated quota, because they're associated with a vessel. Those permit holders that are no longer associated with a vessel, or the permits expire, don't get quota. They do get kind of a placeholder, but again, they are not allocated quota.

Another caveat here is, in-season allocations may be to all eligible shareholders, or we may choose to allocate only to active vessels, as a way to target active vessels and allocate more efficiently in season.

Also of note: Overall, the Gulf of Mexico IBQ represents about 35 percent; in contrast, the Atlantic IBQ is 65 percent.

So, fishing effort: I'll be showing you only data from January through October in each of these years, because, again, 2017 data isn't complete, and in order to show analogous data over the years and get a better idea for how 2017 compares, I'm only showing you January through October. The complete data set is also available, though.

So this shows logbook metrics, numbers of sets, numbers of longline trips, numbers of hooks. The take-home message is, a decline over time in fishing effort with what appears to be a change in the rate of that decline, or maybe even a cessation of that decline in 2017. We'll see, as 2017 data is completed, how that picture looks.

This looks at the number of sets in the Atlantic and Gulf of Mexico by year, with blue representing Atlantic. You can see there's been a fairly stable trend, maybe a slight decrease, in the number of sets in the Gulf of Mexico over time.

This shows the number of active vessels, based on logbook data in blue, and also VMS data in the brown color. Again, similar trends with a stable pattern 2016 to 2017, and you note the logbook data on the number of active vessels corresponds well to the VMS data.

So now, some various data on landings and dead discards: This table shows bluefin landings, bluefin dead discards; it gives you the total catch, base quota, adjusted quota, and various percentages, how these landings measure up to the quotas over time. This does not include the Northeast Distant Area of 25 metric ton set-aside quota.

The take-home message here is the trend in decrease in catch since the implementation of Amendment 7, dramatic decrease in dead discards and a decrease in landings, with, again, the decrease in total catch. So note at the far-right column, as a percentage of the adjusted quota a market change with the advent of Amendment 7 and the IBQ Program.

This shows the same data depicted graphically. The landings are the lower bars, dead discards are the upper bar. So landings are somewhat down, but in a fairly stable trend. But, again, dead discards have declined.

This shows total catch as well as the adjusted quota. The adjusted quota, in orange, has increased due to three factors: The Amendment 7 added a different allocation scheme, same percentage, but then the longline categories give it an additional set sum each year; also, an ICCAT quota increase; and then, in-season allocations also contribute to this increase. But then again, you'll see the blue line represents total catch.

In contrast, this graph shows landings by area including the Northeast Distant Area, a little bit different picture. The Northeast

Distant Area is a geographic area, east of 60 degrees. It also represents a 25-metric-ton ICCAT set-aside quota. So a discussion of NED can be confusing, because it can represent either a quota or the landings attributed to this geographic area.

Under the IBQ Program, vessels are not required to account for this 25 metric tons using their individual bluefin quota. But when the NED 25 metric tons has been attained, then they must use their individual quota to account for such bluefin.

The overall trend, you can see, is a decrease in the Gulf of Mexico. Landings are represented at the top bar. The middle bar is the Atlantic other than the Northeast Distant Area, and the blue bar is the Northeast Distant Area. So a notable pattern in recent years has been an increase in the Northeast Distant Area catch. Again, this is inclusive of the 25 metric tons, and is applicable greater than the 25 metric tons.

This shows the distribution of landings over time, comparing pre-IBQ Program, 2012 to 2014 average, to post-IBQ Program, 2015 to 2017. So, looking at the blue bars representing before the IBQ Program, the trend is predominantly landings in the first half of the year. You can see, under the IBQ Program that the trend has shifted to more evenly distributed throughout the year, but with some summer pulse in landings.

This represents the number of vessels landing bluefin and the number of active vessels. The blue bar shows the number of active vessels; you can see that has decreased over time. The number of vessels landing bluefin is the brown bar, and also shown is the percentage. So as a percentage of the active vessels, those landing bluefin has declined in a pretty stable manner since 2015.

This shows the discards as a measure of CPUE, using observer data extrapolated and compared to the number of hooks we used, a metric of per 1,000 hooks, so there's not a whole lot of zeroes and the data is a little more intelligible. Essentially, the trends are similar. These different trend lines and CPUE are shown by ICCAT area. So all the areas show a similar trend with the exception of one area, Area 51, which has very low numbers of both bluefin hooks. We're going to be looking at this data further, to make sense of it.

The purse seine fishery is related to the IBQ Program, in that purse seine vessels may lease quota to the longline fisheries, so that's why that fishery is relevant. This shows the base quota, the adjusted quota, the landings, and the dead discards.

You can see the base quota has

remained fairly stable or increased, but in contrast, the adjusted quota declines with the onset of Amendment 7 in 2015. You'll recall that the longline quota as of 2015 is based upon the catch of the previous year.

So a relatively inactive year or inactive year would result in only a portion of the quota being allocated in a subsequent year. So that's the phenomenon you're seeing in 2015, 2016, and 2017 with the decreased adjusted quota, and there's been no purse seine activity in the last two years.

Now onto some IBQ metrics. The IBQ balance over time is instructive. This is showing the number of vessels with IBQ allocation, basically, the number of vessels with a one-fish equivalent. So again, this represents basically how many vessels have enough quota to fish.

This represents only 2017, but at the

start of 2017, there were 124 vessels that had at least a one-fish equivalent of IBQ. By the end of the year, it was only 106 vessels that had a one-fish equivalent. This makes sense over time; vessels are, in fact, using a substantial portion of their quota.

This shows the distribution of landings by IBQ tier. You'll recall that there are three tiers of allocation, high, medium, and low, and this also shows permitted vessels without IBQ allocation that are able to obtain it through leasing. The landings are distributed predominantly between the high- and medium-tier categories.

This shows the distribution of quota debt by tier, showing a little bit different pattern. Most of the quota debt is by those vessels with medium-share allocation, and this table on the right shows actual pounds of quota debt by tier.

Then this shows the percentage of total leases by weight by shareholder tier, a different pattern once again, with medium shareholders showing the lion's share of leases in 2015 to 2016, but then in 2017, the high shareholders had the most leases by weight.

Lease transactions by month: This shows 2015, 2016, and 2017, although I don't see 2017 on the legend. The year-end high peak transactions were in 2015, in contrast to the other years.

The pattern of note is the difference between 2015 and 2016 and 2017; in 2015, the rules regarding IBQ allocation and use were different. This was the first year of the program, and we had annual accountability versus trip-load accountability. Vessels were not required to account for the bluefin using IBQ on a trip basis, but again, could wait until the end of the year. You can see this reflected in the lease pattern with that blue spike at the end of the year. The other two years show the spikes in the summer months, reflecting the highest months of bluefin landing.

This looks at the longline leases versus the purse seine leases, as a percentage of the total leases. The longline-to-longline leases are represented in the gray, versus the blue are purse seine to purse seine, and the orange are purse seine to longline. Basically, this reflects the decreasing activity of the purse seine fishery in the leasing market over time.

The first year, they were relatively active participants, and not so much in 2017, although they did contribute 20 percent by weight to the Longline category.

This shows the price per pound of leased IBQ and compares that to the ex-vessel price of bluefin tuna sold by longline vessels, to give you an idea of the trends and the price differential between what vessels paid to lease and what the ex-vessel price for that bluefin tuna was. It also shows you the number of transactions used to estimate those lease prices, and then the total number of lease transactions.

So one take-home message here is the decrease in the price of lease IBQ over time; the other is, there is not a lot of different between the ex-vessel price and the lease price. And because this is an average, some vessels are losing money on the deal; in other words, leasing quota at a higher price than they get for it at the dock.

Also of note is the relatively few number of transactions used to calculate the price; in other words, not all vessels are writing down a price when they complete the leased transaction on the online system. But we've made changes recently that a vessel is required to complete information in the data field in order to execute the lease.

This looks at the cost of leasing on a little bit different basis, as a fleetwide measure. We took the total pounds of quota leased in each year, multiplied that by the weighted average lease price of the same information in the previous graph, estimated a total cost of the leased IBQ, and then compared that to the total longline revenue.

The total longline revenue in 2017 is still pending, so that's not included. But based on this fleetwide metric, the cost of leasing IBQ represented about two percent of the longline revenue in 2015, and about one percent in 2016.

However, arguably, a more useful metric is looking at the cost on a vessel basis, because many vessels did not need to lease IBQ, and so this looks at the average pounds of leased quota per transaction, multiplies that by the average lease price, and calculates a cost-per-lease transaction. This is then compared to the revenue per vessel per trip.

This only is revenue for those vessels that leased quota, so it's not a fleet-wide revenue, it's revenue based on those vessels which leased, and this estimates approximately 34 percent of trip revenue, representing the cost of a lease, 13 percent in 2016, and 13 percent in 2017. So, a little bit different metric.

And also of note, the average revenue per trip for such vessels is greater than the average revenue per trip fleetwide. So there are some interesting things going on.

This shows average revenue per vessel, 2013 through 2016. The data for 2017 is not available yet. Note the increase in the average revenue per vessel in 2016 over 2015, although certainly not back to historic levels.

Total revenue fleetwide: down in

2016, but at least not down as much as the previous trend. Again, I apologize; I'm flying through these for the sake of time. We can have a more ample discussion and dig into your specific areas of interest when I've finished this formal presentation.

This shows data on electronic monitoring program. As you recall, vessels are required to submit hard drives at the end of each pelagic longline trip, which are mailed in. This shows the number of hard drives received in 2016 and 2017, as well as some metrics on compliance: the number of hard drives received late; how many times there were multiple trips on a hard drive, because, theoretically, there should be only one trip's data on a hard drive, as the requirement is to send the drive in at the end of each trip; and then the number of missing trips. The metric has improved over time. Compliance, overall, is pretty robust.

VMS reporting: Also recall that the vessels are required to submit data on bluefin catch, numbers of hooks set, catch by size category after each set. Looking at the compliance with respect the number of bluefin reported retained by the vessels through VMS with the number of bluefin landed based on dealer data, this shows only 2017 data. But you can see the correspondence is strong between the dealer data and the VMS data, which, I believe, addresses Scott's question from earlier.

In 2015 and 2016, the correlation was strong, not quite as good, but the trend was improving over time, so I thought I'd show the best news in 2017.

Other topics with respect to the three year review include cost recovery. Cost recovery is a Magnuson-Stevens requirement, to evaluate cost recovery and potentially implement it. Under the MSA, NMFS may collect fees to cover the cost of management, data collection, analysis, and enforcement activities associated with the cost of a catch share program.

These costs are specifically incremental, dedicated costs that would otherwise not be incurred except for the existence of the catch share program, and the maximum recoverable costs set by Magnuson is three percent of the total ex-vessel value of the catch share species.

So in this case, the catch share species is bluefin tuna, and not the target catch, so the amount of recoverable cost is somewhat limited. This chart shows 2015 and 2016 revenue, as well as what three percent of such revenue represents: $17,000 and $22,000.

So the considerations when we're evaluating cost recovery is, again, the amount of recoverable cost, which is relatively low, and then we need to determine the cost to NMFS associated with the annual logistics.

So it would cost NMFS money annually to estimate the amount of incremental costs that we've incurred due to the catch share program, develop a Federal Register notice to notify folks of what the recoverable costs will be, how we calculated them, the net cost to the industry, and then mailing of bills, instructions to the fleet, fees for the computer interface, and the computer system for administering such payments, follow-up communication with the fleet, and oversight of the program.

So our preliminary assessment is, given these costs to NMFS and the relatively low recoverable cost, it may, indeed, not make economic sense to implement a cost-recovery program if the annual costs to execute such a program approach the costs we would be recovering; somewhat common sense.

Other topics for the three-year review consideration that are required by Magnuson are

IBQ permanent sale provisions. Currently, folks may lease IBQ, but such leases expire at the end of a specific year. There is no current provision for permanent sale of IBQ. So the question in the three-year review would be, Okay, is this something that we need? What should the provisions be? Should there be any limitations? Should there be a cap on IBQ allocation or usage? Currently there is no cap.

Next, IBQ allocation revision is currently a 3-tier system as determined by Amendment 7 that was based on historic bluefin catch rate and target catch rate in a fairly complex formula. Should this be tweaked, or should this be essentially thrown out and go back to the drawing board with some other allocation type of system?

And then lastly, how does the IBQ system relate to the purse seine fishery participation in the program, so far as purse seine fishery is able to lease -- as I say, again, to the IBQ Program, and vice versa, so the two fisheries are linked in that manner. So again, we'll be requesting your ideas on all these aspects.

With respect to the purse seine fishery, our thought is that the formal three year review will look at the question of the purse seine fishery with respect to any cap on IBQ leases, whether or not the leasing program with the longline and purse seine fisheries have combined, should continue, but won't look at the purse seine fishery in the wider context, such as George Purmont alluded to yesterday.

Our thought is that a potential amendment could follow up the three-year review process to respond to recommendations and necessary changes to the program. An amendment could be more broad than the IBQ Program, and include related bluefin topics, such as evaluation of alternatives for maintaining or doing away or modifying the purse seine fishery.

Lastly, Randy covered this briefly yesterday: Deepwater Horizon is a factor in what was going on in the Gulf of Mexico in 2017 and will be in 2018, insofar as there were seven vessels in 2017, part of the repose. We're not using longline gear, and 10 such vessels in the current fishing year.

MR. BROOKS: Thanks, Tom, well flown. We have a few minutes for some questions or comments. Again, I think any clarifying questions you have for Tom on anything he's presented, but also feedback on things like, Is there other data to be looking at? Are there other ways to look at the data that he did present? Again, we've got time for about five or 10 minutes of questions and comments, and we'll start with you, George.

MR. PURMONT: Nice going, Tom. I

think, in essence, the distillation of the history of the seine fishery which, in its inception, the landings of commercial fishing through seiners created the United States bluefin tuna quotas. It is my opinion, and having been there in the beginning, that it is time to close the chapter on purse seining, and it is also time for us to revisit, carefully, the concept of lease, that the seiners have had.

I think it's a fraudulent thing that you can lease something, but you can only lease it to one particular fishing methodology, and that in this case, longlining, should be the recipient. But it could not go to harpooning, could not go to the General category.

So I don't think that the seiners should be rewarded necessarily with inactivity, with non-participation. It was never NMFS's intent that a lease should be established in perpetuity. This is not a 401(k) plan for people who cannot, any longer, participate in a fishery.

So it's my recommendation that we close the chapter. We say, Okay, it's done. Put a fork in it. Thank you.

MR. BROOKS: I'd like to hear from Scott, then Shana, then Dewey, and Glen.

MR. TAYLOR: I find it interesting that one of the first objectives was to limit the bluefin catch of the longline fishery, because there was nothing in Amendment 7 that from methodology really accomplished that. We talked about that from the standpoint of areas that we fish. When you put your gear out, you're going to interact, basically, with what you're going to interact with, if there are bluefins that are going to be in the area that we're going to have bluefin catches.

It poses the question to me -- essentially to elaborate where George was -- what are we trying to accomplish now, as far as this bluefin fishery? I think some of the objectives have changed, maybe not specifically just to bluefin, but sort of in a global sense.

The industry's in trouble, as I keep telling everybody, it's financially in trouble. By your own numbers, it's in trouble. You want to put the slide up there, of what the ex-vessel value is, per boat? The total annual revenue per vessel, I should say. There you go. Not survivable.

I mean, a boat that's not stocking -- you know, the numbers are somewhat skewed, because all the vessels are kind of filtered into that number. But a boat that's not stocking $750,000 to $1 million a year, with what it costs to operate these things, is not going to survive.

And so, what has happened is, we put these things into place -- I find it very interesting that all the other user group allocations are at 100 percent. There is obviously a fundamental flaw, from our perspective, that nobody has really asked us the reason why we're not getting utilization out of this resource.

If you're going to allocate quota to the longline fleet, it's reasonable that the longline fleet at least gets to commercially benefit from it. I don't want to get too far off tangent, but the ex-vessel value per fish per pound is very telling. It was telling in the numbers that you've been seeing in the trend of the value, but the reason is because the majority of the fish that are being retained by the longline fleet right now are essentially the fish that would otherwise be discarded, and the fish that are coming to the boat, as a general rule, that are dead are going to be the lowest quality fish.

But there's more than ample quota, by your own admission. The quota that you have made available to the purse seiners only had one place that it was going to go, which was to the longline fleet. And if that quota was in the hands of the boats that were capable of executing it and fishing it, then from a practical sense I could say to my guys, Okay, you've had a successful trip, you've got a live bluefin there at the boat that there's some value in. Go ahead and box him, put him in the boat.

That's not, with your terminology, targeted fishing. That's taking advantage of the commercial viability. We are out there to make money, at the end of the day. If we don't --

MR. BROOKS: I'm sorry. I just want to jump in, because I think we can talk more about this in the next subject, and I want to focus it really on the three year review.

MR. TAYLOR: So then, I again want to implore to you, a mechanism to have utilization now that there's individual accountability put into the hands of the people that are executing the fishery. We need whatever help that we can get that does not equate into overfishing. We just want the same opportunity that any of the other user groups are being allocated.

MR. BROOKS: Thanks, Tom. I appreciate that. Dewey?

MR. HEMILRIGHT: I'll save my card for later.

MR. HOPKINS: Mainly I just have a few questions. I didn't hear anything in your presentation about the box that we have off North Carolina. Do you plan to review any effectiveness of that, or possibly changing those criteria to qualify, or maybe just doing away with it altogether?

MR. WARREN: In the larger presentation that's available with the agenda; there's a slide on that. The short answer is, yes, we plan on reviewing the criteria and evaluating its effectiveness.

MR. HOPKINS: Okay. Was there any talk about the hard drives being able to combine trips? In North Carolina, we have a lot of small boats, and a lot of times we'll go out for one day, maybe have one set, two sets, maybe three sometimes. It does get cumbersome to run to the post office if you go out one day and come back in. Have you looked at that, maybe being able to change anything where we could have a number of sets on a particular hard drive?

MR. WARREN: We have considered it, not in an in-depth manner. There are some technical issues that make that more challenging, and during the initial phases, we were hesitant to make the program even more complex. But it's something to consider, going forward. If it makes sense from your point of view and it's something we can administer, it's worth having a good look at.

MR. BROOKS: Thanks. Shana?

MS. MILLER: Yes, thanks, Tom, for this presentation; it took a huge amount of work to compile all this data, so thanks for that.

I think it's really encouraging, the numbers you've put up as far as the success of the IBQ Program and the rest of the A7 measures. The discards are way down, the overage that we kept seeing in the Longline category has ended, a reduced percentage of mortality coming from the Gulf of Mexico, the lease price of the IBQs is down, as the fleet has kind of figured out the market for those, so really great news all there.

So just on this revenue: The biggest drop in revenue is from 2013 to 2014, before Amendment 7. So I think as part of this three year review, you had the number of active vessels back to 2012, for example. There's been this steady attrition in the fleet for years now, and I think it's really important to take this analysis back pre-2012, because there are many more factors at play than just Amendment 7. Thanks.

MR. BROOKS: Thanks, Shana. Marty?

MR. SCANLON: The first question I have is, how many active vessels are in the Gulf of Mexico? That's the first question I have. They have 35 percent of the PLL quota, or we have 65 percent. How many active vessels are in the Gulf of Mexico? Do you know?

MR. WARREN: Off the top of my head, I don't have a precise number. It's less than 35 percent, though.

MR. MCHALE: And we can get that number for you, Marty.

MR. SCANLON: Okay. The other thing I say with regard to what George said: One of the things that give some level of comfort within the PLL when it comes to being a choke species is the fact that that IBQ that's sitting in the purse seine can only be given to the PLL. So that is really what's keeping us from becoming a choke species, that we have any kind of control over whatsoever.

So if you take that out and put it in -- we can see that we've been getting limited dispersals from you guys to begin with, so we lose exclusive control of having access to that, the chance of us getting that at all is probably none, the way it looks to me right now.

The other thing to do is, like Scott said, the biggest problem we have, and the reason why you're telling us you're not going to give us anymore dispersals is because there is so much quota in the PLL. But you've never put a mechanism in for us to really get that quota.

We need to have the active vessels -- and I'm not talking about a guy that made one set to be declared active -- we need to have the active vessels on a set basis. I'll use myself as an example: I make between 125 and 150 sets a year. For me, to be classified as an active vessel, make the same amount of bluefin IBQ as a vessel that's considered active that gets maybe 25 sets a year, to get the same allocation and the same dispersal rate, when I'm making all of those sets.

The problem with the PLL is that 25 percent of those vessels go out, and those are the captains who go out and look for the fish, find the fish, and the rest of the fleet follows them. So when you're making 150 sets a year, you give the General category X amount of fish per day. Well, we need to have X amount of fish for every set, you know, a ratio of some sort of bluefin quota to make X amount of sets.

For me to actually go out and look for fish, look for my targeted species, and take the chance of encountering bluefin interactions, I'm at great risk. I have to be very, very careful of what I do. I'm limiting myself of even going to areas. I've basically got to use, when I do stumble across them, even in minor areas, I barely have enough IBQ to cover myself.

And as you see in this data, to lease the IBQ is not profitable, you're losing money most of the time. So I'm on a very marginal fishery right now, not only because of this. You've got bait costs that have been through the roof; that's probably our largest expense on any of these vessels right now is bait. We're paying as much for bait as we're getting for some of our landed fish.

So my suggestion is that we have to reclassify the IBQ as active, but they're really not active. And if you want to consider them active, you've then got to give the active vessels the IBQ dispersals on a set basis, and you've got to do dispersals on a set basis, and that's throughout the year. Just because a boat is active and he's sitting at the dock for six months, if he hasn't left the dock, he shouldn't get anymore dispersal until he does leave the dock and made some kind of sense.

That's the only way you're going to solve this IBQ and not have dead IBQs sitting in a category that nobody's using. I mean, I'm actively fishing. I haven't got time to come to the dock and go track down an IBQ on my free time. I don't have free time. I'm a busy guy, as you can see, I'm sitting here, I'm on a take reduction team, I work with Blue Water; I've got a lot going on, much less tracking down that stuff.

MR. BROOKS: Thanks, Marty.

MR. SCANLON: That's what we need to focus on, is getting the IBQ into the hands of active vessels on a set basis.

MR. BROOKS: Thank you. Tim?

MR. PICKETT: Maybe this is just a pipedream sort of thing to look at, but I think you should probably review the whole program and see if you even need it still. With the amount of attrition that's in the fleet -- maybe that's a harsh way of putting it, if you need it still -- but look at the attrition that's in the fleet, because it's certainly at a different place than it was when this was all being evaluated, and the overages were being looked at.

The fleet was a totally different number and a totally different amount of effort than it is right now. So that would be something to consider when you're reviewing the whole program, is where the fleet is and its abilities, compared to its abilities when it was first assessed, and all of this came down the pipeline.

MR. BROOKS: Thanks. I think we've gotten everyone for this piece of it. Did I miss anybody? Oh, I'm sorry, Dewey?

MR. HEMILRIGHT: Something else to

consider here is, a fisherman shouldn't have to put down on his logbook that he discarded dead fish when they're undersized, under 73 inches. When he comes to the dock, he's got to go buy more quota to go back fishing. I know of an instance earlier in January where an individual went fishing; he had nine fish that were under 73 inches, and it accounted for around 1,000 pounds, I believe. So he threw them over, dead. He's got to come to the dock, go buy 1,000 pounds at $2.50 a pound to replace the fish that he threw over. That just does not make sense.

It might be that this three year review might really need to look at whether we need this program, because it is not only the shaping of our industry, it is also causing it to shape even farther. We're not talking swordfish here today, but look at the last three years of the swordfish era, and where it's at on the graph; it's going down, down, down.

So I hope this agency puts that into aspect of the multi-fishery that the U.S. pelagic longline does, bluefin being part of it, but also the swordfish, because I'm still waiting to see how leadership is going to take us. They continue to ask us, How do we revitalize this pelagic longline industry? This bluefin tuna is one portion, as is the swordfish.

But fishermen should not have to throw over dead fish and come back to the dock and go buy quota to replace the dead fish they threw over. Plain and simple, it shouldn't be happening. Even if it was undersized when it came to the dock to be sold, they have to have a tag in, so even though they're small fish that will be possibly entering into the marketplace, they have that tag that's in their tail that's tracked. So it's not like a phantom fish without a tag. Thank you.

MR. BROOKS: Thanks, Dewey. Well,

maybe with that comment we should pivot a little bit here to the next topic. I believe Craig will be giving this one, and Jen. So we want to shift and talk about pelagic longline bluefin tuna weak hook and area-based management and consider possible management options, which will be laid out here. Then we'll get some reactions to it and put it on the table.

MR. COCKRELL: All right, good afternoon, Jen and I are going to discuss area-based and weak hook management for the pelagic longline fishery as it relates to bluefin tuna. This is related to a scoping document that we released Thursday and sent out over the listserv and posted to the website.

So just a quick outline of the presentation here: We're going to discuss the background, the purpose, and the objectives that this action is looking to achieve, the management options that we discuss in the scoping document, and then where we plan to have public scoping meetings and next steps.

So to give you a little background, the pelagic longline fishery obviously targets swordfish, BAYS, and dolphin, and recently there's been a decrease in effort in target species landings. As Tom showed in his last presentation, there's been a decrease in effort and in total pelagic longline revenue in the past couple of years.

In Amendment 7, we made some pretty substantial changes to the pelagic longline fishery, where we implemented IBQs, gear-restricted areas, electronic monitoring, and VMS catch reporting as it relates to bluefin tuna.

As Tom showed in one of his slides, the IBQ Program seems to have resulted in a pretty substantial drop in bluefin tuna landings and dead discards. Part of Amendment 7 was that shift towards individual vessels accountability.

So given that individual vessel accountability, this scoping paper is going to look at some of the fleetwide management measures for reducing bluefin tuna discards and interactions. That would include the Northeastern United States Pelagic Longline Closed Area that was implemented in 1999, up off New Jersey, and then it would also look at weak hooks that were implemented for the Gulf of Mexico in 2011, and the Cape Hatteras and Spring Gulf of Mexico Gear Restricted Areas that were implemented in Amendment 7 in 2015.

So here we have a quick look at where these areas are spatially. As you can see, the Northeast Closed Area is up off the New Jersey shore. Then we have the Cape Hatteras Gear Restricted Area off the Outer Banks, and then in the Gulf of Mexico we have to two boxes that are cross-hatched that are closed to all vessels in April and May; that's the Spring Gulf of Mexico

Gear Restricted Areas. Then the entire Gulf of Mexico is where weak hooks are requested year-round.

The purpose of scoping for this is to obtain additional public input on the management options that we're considering in the document and whether or not there are additional ones that we should look at, or there are ones that maybe we shouldn't consider in a proposed rule. I'll just restate here that the need is basically to look at these fleetwide area-based and gear management measures and evaluate whether they're still necessary, given the A7 IBQ Program, the decrease in pelagic longline fishing effort in target species landings and our need to move towards more of an individual vessel accountability. We've also received requests to remove redundant regulations as well.

So we're just going to run through a couple of maps. One thing to note is that all of these maps have the same scale, as it relates to bluefin tuna interactions. While some of them include more years than others, we're really just showing these for informational digestion here at the meeting to show you how things have changed over the past couple of years.

This first map is 1996 and 1997 data, and that was actually the data that was used to implement the Northeastern United States Closed Area. As you can see, we had some pretty high interactions within that box during those years that were used to implement the closure.

Here, we're looking at -- granted, this Northeastern Closed Area is closed in June, but this is year-round data as well, so that's why you're seeing data in the box. We just wanted to show a full year, so you could get a full picture.

What we show here is bluefin tuna interactions for the two years before Amendment

7 was implemented, the most recent two years before it was implemented, and then 2015 and 2016, the two years after implementation.

This shows the Cape Hatteras Gear Restricted Area, and this is actually the map from the FEIS for Amendment 7, just to show the level of interactions that were occurring in that area when we implemented the Cape Hatteras Gear Restricted Area. Note that this is seven years' worth of data, whereas now we look at the two years before Amendment 7, but the two years that weren't in that analysis, and then the two years after Amendment 7 in the Cape Hatteras Area.

Just to note, there are interactions inside that area because that areas does currently have performance access, and there are folks who are fishing in that area during the time when the gear-restricted area is effective.

Here again we show the interactions that were occurring in the Gulf of Mexico during the implementation of Amendment 7. It's a little hard to see here because we don't have quite as big a contrast between the grid cells, but the range was from zero to 50 bluefin tuna per grid cell.

This again shows the two years of data before Amendment 7 and the two years of data after Amendment 7, and if you can see here as well, the range of bluefin tuna per grid cell has decreased from zero to 10, but then still given that you're looking at two years of data per map.

And then as it relates to weak hooks, we wanted to show a couple of different graphs, and this is the catch per unit of effort, basically the number of fish per 1,000 hooks in the Gulf of Mexico, and this is for bluefin tuna. It shows the change in the catch per unit of effort when weak hooks were implemented in 2011, and then also when Amendment 7 was implemented in 2015. You can see that there was a slight uptick in 2012, but a general decrease in catch per unit of effort since weak hook implementation.

Now, given that, this is actually looking at annual catch per unit of effort, same scale, number of fish per 1,000 hooks, but for white marlin in the Gulf of Mexico. As you can see here, since weak hooks were implemented there has been a general trend upwards in white marlin by catch since weak hook implementation.

Then this graph here shows the seasonality of presence of fish in the Gulf of Mexico and the overlap with the orange bar being bluefin tuna, where their main presence is from March to June, and the high CPUE is from March to June, and then white marlin being the blue line, where there is a slight overlap. But some of the higher CPUEs are actually when bluefin aren't as prevalent in the Gulf of Mexico.

So Jen and I decided to split this up, so she's going to take over the second half of the presentation.

MS. CUDNEY: All right. Craig walked us through some of the preliminary maps and data that are in the scoping document, and I'm going to walk you through some summaries of the other information that is in there.

The next couple of slides are going to go through the objectives of a potential future regulatory action that would look at this. We felt that these objectives included simplifying and streamlining HMS management as practicable, while focusing on reducing some potential redundancies in regulations that were established to reduce bluefin interactions or dead discards that apply to the longline fishery.

We also included as some objectives for a potential future regulatory action, to the extent that it's consistent with some of the other goals and objectives that are listed, to pursue management strategies that emphasize individual vessel accountability, as we have discussed, and to also, while doing that, continue to manage bluefin tuna by catch within the longline fishery to ensure that the objectives related to bluefin tuna stock management, fisher management, etc., are still met.

So that is going to include making sure that we're not doing anything that's going against any of our domestic or international goals towards allocations and quota limits, protecting spawning bluefin while they're on their spawning grounds, and making sure that we're still keeping in mind appropriate gear restrictions for the longline fishery.

We are also interested, as we have discussed, in optimizing the ability of the longline fishery to harvest target species. So specifically, we want to keep the swordfish fishery and the swordfish quota in mind and be aware of the fact that we have not met our quotas as we go through these exercises now and in the future.

We would also be interested in looking at accounting for mortality that is associated with discarded bluefin tuna and maintaining the incentives to reduce dead discards in bluefin tuna interactions, keeping in mind social and economic impacts on fisheries and fishing communities and minimizing those where we can.

We want to minimize any disadvantage to U.S. fishermen in relation to foreign competition, and of course continuing to prevent or end overfishing, keeping an eye on bycatch regulations and minimizing bycatch mortality, trying to strive for optimum yield consistent with our fishery management plan and all the other things that we have to keep in mind.

As you look at this scoping document, you're going to see more than 30 pages of management options that relate to some of these different spatial areas or as it pertains to weak hooks. In general, you're going to see the management option name, a description, and some pros and cons for each of these. Because we have so much material in here, what you'll see that we've done with the rest of the presentation is, we've consolidated some of the discussion, because some of the pros and cons for the different gear restricted areas are going to be fairly similar when you're looking at similar options for these.

So in general, you'll see that we're talking collectively about the Northeastern United States Closed Area, the two gear restricted areas in the presentation, but they are treated separately in the document. And then we also have a nice section in there on the weak hook measures as well.

So the next couple of tables are going

to summarize the information that's in the rest of the scoping document for the three area-based management options. We tended to have five different types of options that we considered, and that ranged from our bookends of no action to the elimination of the area. It also included, where appropriate, the incorporation of performance metrics that have already been established for the Cape Hatteras Gear Restricted Area, and modifying spatial or temporal coverages of these closures or gear restricted areas, and then looking at provisional application of the areas.

So I guess you could say we ranged from turning it off or turning it on when certain thresholds in the fishery are met. We don't necessarily define those; we think it could be within a year, it could be within a season. Those are things we can all think about as we move forward with this discussion.

So the next couple of slides are going to have pros and cons listed out; they are not in any specific order. The pros are going to be on the left side of the screen, the cons on the right. There is a parenthetical statement at the end of each pro or con that indicates which area that particular item pertains to. There could be cases where a pro or con applies to all areas, or it could apply just to the Cape Hatteras Gear Restricted Area, for example, or the Northeastern Closure.

So related to the new action options, and these are just some of the things that we brainstormed as a team, so we encourage you and your consideration and comments to think about additional pros and cons, to offer additional suggestions. This is just what we thought of as we were putting this document together.

Some of the pros for a no-action option or status quo, keeping things as they are:

We would continue to achieve some of the reductions that we've already gained in bluefin discards or interactions; it would also maximize the protection of spawning bluefin tuna in the Gulf of Mexico.

I'm not going to read every single one, because you can read them yourself; I just wanted to touch on a couple of the highlights.

For cons, a lot of the closed areas that we have, we don't collect data in. So that was something that we constantly thought of when we were thinking about these areas. We also noticed that bluefin tuna distributions may have changed since the implementation of these areas; these are mobile animals. Something that was established 20 years ago may not necessarily reflect the areas where bluefin interactions are occurring now.

Then we also have, of course, the IBQs that were established in Amendment 7 may not require certain fleetwide measures. So to go with a no-action option would basically enable the retention of a potentially redundant regulation.

Okay, performance access for area-based management: This is going to focus more on the Northeastern U.S. Closure and the Gulf of Mexico GRA, since we already have it for the Cape Hatteras GRA. Most vessels would likely have access as a pro, so hopefully this would not negatively impact commercial fishing vessels that much, if we were to implement it in other areas.

It could allow for limited data collection in a rather controlled way in the Northeastern Closure and the Gulf of Mexico GRA. Cons for performance-based access: We may not maintain that same level of reduction that we had when we implemented the areas, if we are starting to allow more vessels in there; there might still be some vessels that are precluded from accessing the areas, based on performance metrics; and again, you start to run into the question of, if you have performance-based access, in some cases, the IBQ itself may be duplicative to then restricting somebody from going into an area.

Modifying the spatial or temporal coverage for area-based management: kind of some similar considerations, where, like I said, we want to make sure that these areas are reflective of the current fishing environment, so that would be a pro.

If we found out, through some future analysis, that we needed to change it, it could reflect new locations or new timing for when bluefin tuna are in these areas, and thus respond to changes in their distribution or to distribution in the fishery. It could minimize some disruptions to the fleet, depending on those changes, and it could lead to increased catch, depending on those changes.

The cons: Again, we come back to whether or not we want to emphasize individual accountability, and the fact that, if we have areas that are closed, we are still not collecting data in those areas.

Provisional application: Again, that is the opening or closing of an area based on a threshold that we could identify in an analysis. That would open portions of these areas to the fleet. We would get data, and it would probably be more favorable for portions of the fleet that could access these areas economically. That would provide greater emphasis on individual accountability, because those captains would have to make those decisions based on the amount of IBQ that they have, whether or not they were going to fish in those areas and how they were going to fish.

Cons for provisional application: You have some uncertainty; you're not really sure when some areas are going to open or close, because we would have to intensely monitor catch levels from those areas. So most likely, if we had a sensitive trigger or a smaller amount of bycatch that was allowed in that area, we could close it.

Then you also have the situation where the actions of certain individuals within the fleet could affect other individuals in the fleet.

Elimination of these areas: As a pro, that is going to emphasize individual accountability. It could increase the target catch and would be less of a monitoring burden. Cons include difficulty to predict your impacts to target catch and bycatch levels and may not maintain the same level of protection for bluefin when implemented, especially for small bluefin.

So getting into the weak hook management options: We had three that we considered in this scoping document, and of course, there could always be more. That's why we're looking to you for general suggestions.

These options include a no-action option, the elimination of the weak hook requirement as bookends, and then in the middle we have seasonal application of weak hooks, where we would only require weak hooks within certain months of the year. Typically, this would be the time periods when bluefin had the greatest abundance in the Gulf of Mexico.

Then getting into the pros and cons: As a pro for the no-action alternative, it would, of course, maintain, along with some of the other measures, reductions in bluefin tuna discards by releasing the fish before they are even brought back to the vessel.

The pros for the seasonal application of weak hooks would be continued protection of spawning bluefin during peak seasonal abundance, and also the fact that other hook types might increase target catch levels or decrease bycatch of white marlin.

Then for the elimination of weak hooks, a pro could be the levels of interactions are low, so we may not need weak hooks to maintain low levels of bycatch.

Cons for no action: Basically, we may not need to address concerns about duplicative regulations; we may decrease a large target catch by hook-straightening; and we may increase white marlin bycatch. You remember the graph that Craig showed; there was a trend of increasing white marlin bycatch after implementation of weak hooks.

Cons for seasonal application of weak hooks: This may not address constituent concerns about duplicity in the regulations, and if we had two different types of hooks that are being used throughout a year, it could increase the cost of implementation for fishermen.

Finally, cons of eliminating the weak hook requirement: It may increase the retention of legal-sized bluefin tuna during spawning season, it could put the spawners at more risk, and it could lead to more rapid use of IBQ.

All right, on to next steps: As Craig said, we rolled this out last Thursday, so we do have an FR notice that is out for public comment. The docket is available at the link at the top of the slide. Our comments are due by May 1st, and we do have, at the bottom of the slide, a website where you can go to get more information on this scoping document.

This table shows some of the upcoming meetings and webinars, and I just want to make a note that the Manahawkin, New Jersey, meeting has been rescheduled, based on a request from some constituents in that area. So we are putting notice out about that meeting in a Federal

Register notice that should be coming out soon. Thank you.

MR. BROOKS: All right, thanks to both of you. So, I think, a couple of different forms of feedback, and obviously, any questions you have about options in the presentation, we want to hear that. But also, feedback on any of the options, so you've got two things on the table. One set of options dealing with area-based management, and one dealing with weak hooks.

So with that, I've got already in the queue David, Scott, John, and Jason. I'm going to pick up the cards going this way.

MR. KERSTETTER: Thank you. A couple of quick things: First, when you started out -- and this applies to Tom's presentation as well -- when you talk about total revenue, I'm assuming you mean gross revenue, correct?

MR. COCKRELL: Right.

MR. KERSTETTER: I just want it to be

said very clearly that, given the increased cost to the fleet -- and not just to this fleet, but all fleets -- I think that, again, as we're discussing management options for the fleet, we need to keep that in perspective, just given the economic viability question.

Larger question about your areas: I know you were focusing on the tuna-specific areas; however, I think it would also be very helpful if you showed the rest of the areas operated by the fleet, because of the effort-redistribution effects.

And so, as has been said by others around the table, if you're forcing these vessels to fish in other areas, you could be forcing them to fish on other concentrations, whether it's bycatch species or something else that they're trying to avoid.

Finally, and I've asked Charlie about this before: Why the white marlin increase? I see Randy smiling, because I conducted research with one of my graduate students in 2008, both of the Carolinas and the Mid-Atlantic, where there is no shortage of white marlin, and we didn't see any pattern even remotely approaching that one. Thank you.

MR. BLANKINSHIP: Yes, this was a very interesting thing that was noticed in the original weak hook research conducted by NOAA, and that showed an increase in white marlin CPUE. However, the difference was not statistically significant. As time has gone on, however, the trend has still shown up. So the question why has been the question all along. It doesn't really -- okay, John Graves has the answer, it appears.

(Laughter.)

DR. GRAVES: Well, you're assuming that your population has stayed level, but every indication is that the white marlin population has increased. We've had a significant decrease in fishing mortality as the recreational industry has shifted from J hooks to circle hooks, and that reduction in post-release mortality represents about 80 metric tons of white marlin a year.

So we're seeing that benefit, not only in those tournaments that are directed towards white marlin, but you should also compare the observer estimates from the Atlantic, which also show a big increase in the interactions with white marlin. This would suggest that your increase is due to a population increase, and maybe not a gear effect.

MR. BROOKS: Thanks, John. Randy?

MR. BLANKINSHIP: A very good point, and I think that all needs to have some further investigation with other species as well, because there might be other effects with other species, even billfish species, that we're not seeing the same trend with the circle hook effect.

There's just not necessarily consistency across all of those species, given the population grid.

DR. GRAVES: We're not seeing that same trend necessarily in the abundance of the other billfish species. We're seeing it particularly within white marlin, and I haven't looked at sailfish, so I don't know.

MR. BROOKS: Dave, do you want to weigh in at all on any of the options?

MR. KERSTETTER: Not at this time.

MR. BROOKS: Okay, that's fine. Scott?

MR. TAYLOR: So there's a line from the movie, Days of Thunder, that tires win races. Well, in our business, hooks catch fish. I find it interesting that you make the statement that we try not to regulate -- and I believe that you all believe that -- not to disenfranchise the

U.S. fisherman.

The practical application of this, from the guys that are there actually swordfishing in the Gulf, is that this does substantially disenfranchise them. I find it interesting that this CPUE that you put up -- and maybe it's there, and I missed it, so I'll give you the benefit of the doubt -- doesn't include CPUE for swordfish. We're only identifying the impact for bluefin tuna in the graphics, unless I missed part of the presentation.

MR. COCKRELL: Yes, right now we're looking at bluefin tuna, but as we move forward with a more robust analysis, yes, we would consider swordfish and all other catch.

MR. TAYLOR: So I can only tell you what happens in the real world. There's a frustrating disconnect. From the best of my knowledge, there are only three or four boats that are really actively swordfishing down there during a limited period of time. I've got three boats down in there right now, mandatory observer on the boat, individual accountability, and they'll come back with a bucketful of straightened-out hooks.

Big swordfish straighten these hooks out. Now, bluefin tuna will straighten hooks out, if there were bluefin tuna there to catch right now. But where they're fishing for these swordfish, there's not bluefin tunas. And if there were bluefin tunas there, you'd put an individual accountability in place to be able to deal with that. If they catch them, there was Gulf quota to put in place for that.

It's time that we start to recognize that the actions that we put into place to protect every single species that comes and gets thrown at the agency is destroying the pelagic swordfish longline fleet, and that these accountability measures that you put into place -- Lord knows, I don't know what else that you can come up with -- electronic monitors, observers on the boats -- all of the things that you require us to do, have all led to our diminished ability to be economically viable and to execute the fishery.

You need to get rid of these things. There's been no substantial evidence that I've seen that it's benefitting you in the way that it is. I'm going to end with this: I was recently down there in the Gulf of Mexico for an alternative gear workshop that was put on by the Audubon Society. I think the agency had some people there at that particular meeting, and the Vietnamese contingency was there. They like the weak hooks; they think that they work very effectively for them in the yellowfin industry.

I wouldn't prohibit their use, but I wouldn't mandate their use. It's just time that we move on and try to allow this fleet to do what it needs to do before it really, sincerely, is too late.

MR. BROOKS: So, Scott, I just want to make sure I'm hearing clearly what you're saying. As far as the options on the table for weak hooks, it sounds like you're saying, Option 3, elimination of the weak hooks requirement?

MR. TAYLOR: Yes, I would say that is the --

MR. BROOKS: I knew you were going there, but --

MR. TAYLOR: Yes, that's the clear message.

MR. BROOKS: Did you want to weigh in on the area-based management at all, specifically?

MR. TAYLOR: The area-based management really goes back to the same discussion that we had yesterday: Until we can resolve some of these issues and how we're going to allow for flexibility for the fleet, it's a moot discussion. Right now, it's an agency decision and a political decision; there's something on the table here for you that would be a first step in that direction.

If what you mean by area-based management is that if there's bluefin interaction within the areas that are open, if you eliminated the weak hooks, then I would say to you that it's completely unnecessary, because you have another mechanism for that; that's the IBQ.

There's only so much Gulf IBQ that's there --

MR. BROOKS: I was thinking of areas outside of the Gulf, other areas that we talked about.

MR. TAYLOR: I guess I'm really misunderstanding. You mean, in terms of the weak hook?

MR. BROOKS: There were six or seven different options being put out by the agency --

MR. TAYLOR: It goes back to the same discussion I had yesterday which is, you have individual accountability measures that are put into place, so the area-based management that's there is, from our perspective, always has been. It's like dealing with the situation with the baseball bat versus dealing with it with a scalpel.

It's always been my belief that you hold people individually accountable. There are going to be bad players, there will be good players that are there. You have enough measures that are in place to identify whether or not there's a problem. And if you really want to -- it depends on what you want to solve. If we're solving the swordfish problem, we need to be able to fish in a way to target the swordfish.

MR. BROOKS: Shana?

MS. MILLER: Thank you. I will try to be concise here. I may not be brief, but I will try to be concise. First of all, reading this when it came out last week, I was a little surprised, and it was very reminiscent of that dot exercise that we did last year -- whenever it was -- that I felt that, at least the way I read it, the issues and options presented were all in the direction of releasing regulations rather than seeing if new ones were needed.

So I'll just start with that. And then, looking at the Northeast Closure Area first, it's a 19-year-old closure that was designed specifically for bluefin. You mentioned in the scoping document that there are high interactions of bluefin to the east of that area, and I think some of the fishermen have been talking about that for years, with their sense that that closed area needed to potentially be extended to the east, rather than reduced.

We spent hours yesterday talking about research in closed areas, and I'm surprised to see an option to re-open this closed area without some movement to do some research in the area.

I agree it's been 19 years; it warrants looking into, but it seems premature to consider opening it or reducing the size or temporal coverage of it at this point.

On the weak hooks, I think the data that you showed indicates that they have been effective, certainly more effective than I thought they would be. I was definitely a naysayer in the beginning, as far as how long it took the fish to straighten the hooks, and whether they would die, post-release, from those hooks. I think the hook timer research you did put that concern to bed, and the data you showed has been effective.

But as you say, bluefin aren't in the Gulf in big numbers for the entire year, so if you consider a seasonal mandate of the weak hooks, I would suggest looking at January through

June versus March through June, as you include in the issues and options paper. Certainly, white marlin wouldn't be a concern in those earlier months.

But the biggest concern in reading this paper, by far, is the suggestion to curtail or eliminate the gear restricted areas in the Gulf of Mexico. We're three years into those closed areas; it took more than six years to develop that, and who knows how many hours of NMFS staff time and analyses. The data are really compelling that it's been successful. The issues and options paper says, 82 percent reduction in bluefin mortality during April and May, those two months.

Scott asked about the swordfish and yellowfin numbers; he's right, they weren't in your presentation, but, of course, you have them in the document itself. And we're talking in those two months, 360 swordfish and 316 yellowfin; that's it, that the fleet is missing. So getting an 82 percent reduction in bluefin catch for a few hundred swordfish, a few hundred yellowifin out of thousands of swordfish and yellowfin. So I don't see that as much of a sacrifice, given the benefit.

You showed that slide No. 13, that shows the mortality in the Gulf, pre- and post-A7, and I think this actually shows how well you did in picking the areas, because ever with those areas being closed in April and May, they're still showing that those are hotspot areas for bluefin.

We had a presentation at the ICCAT advisory committee for later this week about the post-release mortality from the longline fleet, and I said this yesterday, so I won't get into it. But just to reiterate, almost 50 percent of fish caught on those longlines were dead at haulback. So the best way -- and they had this in their presentation -- the best way to reduce or eliminate mortality is to avoid interactions, period, and these gear restriction areas are the way to do that.

Jen, you had mentioned that one of the reasons to get rid of the weak hook requirement is because of the low level of interactions with bluefin post-A7, and again, I would say it's because of this.

So if you propose to roll both of those back, that could be severely problematic. Just to reiterate my point from this morning, yes, the quota has gone up, but who knows how many years that increased quota will remain?

And just lastly, we're three years in; there's this three year IBQ review program this year, which will likely look at more components of the Amendment 7. In light of all that, it just seems that this issue in the options paper was a bit premature. Thanks.

MR. BROOKS: Thanks, Shana. Katie, your card was up before. Are you good? Okay. Marty?

MR. SCANLON: Well, I've always been in favor of giving the Atlantic folks access to the Gulf of Mexico, where in A7, we were identified where and basically when we can work in the Gulf where there are any bluefins. That's number one.

As far as performance metrics we're talking about, let's just say on the weak hooks, the hooks that we're going to be using in the PLL, most of the take reduction team, once that rule comes into effect, it's again going to weaken, overall, the hooks being used by the industry.

So now, we constantly keep finding ways to reduce bycatch and this, that, and the other thing, but with that implementation, we're going to again be fishing with weaker hooks, and we're going to have more of a loss of swordfish. How can we offset that?

One of the ways we could offset that is to eliminate these weak hooks which, in many cases, are too weak. We look at these slides here on what weak hooks have done to reduce in bluefin, and it actually increased them all. It shows an increase in them all. But they don't show what the effect it has on swordfish. So that's an issue here.

Performance metric: You're talking about area-based management with performance metric. Well, what is that going to mean? I mean, the biggest problem with the performance metric is, we are judged where the main criteria is based on three different categories. One of them is a ratio of overall landings to landings of bluefin. Well, how does that apply if you're applying performance metrics to other areas on for other management-based issues?

So I think that particular portion of the performance metric needs to be eliminated, as far as whether or not it should be based on -- anything you do there, like is said, set effort, is what it needs to be done on, if you're going to do performance metrics, as far as that goes.

As far as the Northeast Area, up in there, every time we talk about getting anything given back to us, that area is specifically closed to keep us from catching bluefin tuna fish. We have an IBQ system, so that in itself monitors and regulates how many bluefin we can take in that area.

We always find a way that we can take areas away from us, but we can never find a way to get us back in there once it's taken away. And when you start talking about area-based management, all I see here is more and more closed areas with no mechanism to revisit them and re-open them.

It's a train that just keeps going down the tracks and just picking up passengers as it goes along here. You know, just keep taking more and more bottom, okay. What else do we want to take away from these guys? We'll find a reason to take it away, but we can't find a darn reason to put them back in there once the problem is corrected.

MR. COCKRELL: Yes, but just to be clear, we don't have any options to include any additional areas. These are all areas that already implemented, and we're looking at management changes for those areas that are already implemented.

MR. SCANLON: All right. Well, like I said, weak hooks, as far as I'm concerned, there's no reason to have the weak hooks. We've never developed a study in which we're finding out what the optimum hook is to be used within the pelagic longline industry to maximize a targeted species in relation to what we are trying to avoid or eliminate, as far as discards go.

It was either Hook A or Hook B or Hook C. We never found out what really was the right answer. This works better for this, but we never found out what worked better for that, and that's where we are with the weak hooks. The same thing with the take reduction teams. A take reduction team should have some sort of study there. But now again, we're giving up a stronger hook, with the elimination of those 18/0 hooks is going to offset, by giving back the weak hooks and allowing the weak hooks to be eliminated, you're going to be getting some relief from that, because you're not going to be allowed to use those 19/0 hooks universally throughout the fleet. Those strong 18/0 hooks are not going to be in use after that take reduction team plan comes into effect.

So the concern that all of a sudden, you're going to take those weak hooks away and everything's going to go haywire, that's not necessarily true.

MR. BROOKS: Thanks, Marty. I've got David, Tim, Bob, and then over to Jason, then to Scott.

MR. SCHALIT: Could you explain the difference between and EA and an EIS, and also explain under what circumstances you would go directly to an EIS or alternatively, to an EA? Thanks.

MS. CUDNEY: Some of this is going to depend on the level of controversy and complexity of the issues. Some of it is based on the amount of public feedback that we're going to get, just overall impacts.

MR. BLANKINSHIP: That's correct, and then there's a difference in the process of scoping, which is what this one is in right now, followed by a proposed rule, followed by public hearings.

The EIS process is a much longer one; EA is not as long, it doesn't require scoping meetings before a proposed rule. Does that help with your question?

MR. SCHALIT: So in this instance, with these proposals, is it a foregone conclusion that we will be doing one or the other, or is that a decision made relative to each issue?

MR. BLANKINSHIP: In this case, there was a notice of intent to prepare an environmental impact statement for this initiative. That is a starting point. It does not require us to do an EIS. If, through scoping, it is determined that the level of controversy and potential impacts is not high enough to require an EIS, then we could change and do an EA instead.

MR. BROOKS: Thank you; Tim?

MR. PICKETT: Thanks for bringing all of this up. It's something I have wondered about here; I remember when the weak hook thing was getting proposed in the Gulf. Just my general perception of all of this: The area closures, to me, is a belt and suspenders, with the A7 thing being the belt, and it's a tight belt, and the weak hook thing is a belt, suspenders, and an elastic waistband.

The weak hook, if you go back to when they first did the study on the weak hook, it was also done, I believe, only in the northern Gulf of Mexico, with the guys that are predominantly tuna fishing. They did see a statistically significant reduction in the swordfish that they catch.

Now, they're not really a swordfishing fleet either. We have guys, like Scott said, that swordfish almost -- well, swordfish at different times of the year in the southern Gulf of Mexico. So the hook is a terrible, terrible thing, as Scott was saying there.

But I think it's nice that this is getting reviewed again, and hopefully, at least during the time period when the bluefins aren't there, get rid of the weak hook. It's just general redundancy, in my opinion.

MR. BLANKINSHIP: Real quick point about the weak hook research: The difference in swordfish retention was not statistically significant during that research.

MR. BROOKS: David?

MR. KERSTETTER: Yes, but the work we did with weak hooks off the Carolinas and mid-Atlantic, swordfish CPUEs were statistically lower. I'm just saying, though, as we consider these for other things, there is a significant reduction for swordfish in that mid-Atlantic study.

MR. BROOKS: Okay, thanks.

MR. PICKETT: My point was that they weren't swordfishing during the study that was done in the northern Gulf of Mexico with the weak hooks. There are guys that do swordfishing in the Gulf of Mexico more towards the south, and fish out of the Keys, and they are swordfishing. And like Scott says, they come back with a bucketful of pencil hooks, especially a couple of years ago when the fishing was really, really good out of the Keys, it was a ridiculous thing for them. For every fish they caught, they caught a nice marker fish, and there were four straightened hooks around it, and those guys were swordfishing.

So, maybe review the data and review the fact that it was mostly the northern Gulf of Mexico fleet that is targeting tuna. They have a small bycatch of swordfish that they don't -- not that they don't want them, but they're not targeting the swordfish. So it's a lot different for the guys that do target swordfish in the Gulf.

MR. BROOKS: Thanks for the clarification. Bob?

MR. BOGAN: We used to joke about using rubber hooks. I have concern about the sharp rise of the white marlin. At the precise time that the weak hooks were starting to be implemented, I know a few years ago the white marlin stock was a big concern. But now we're starting to see more of them caught at the same time we're using these hooks, and some say that's a good sign, because that means the white marlin are coming back.

Well, I just want to go on the record in saying, I think that the longline fleet would get a huge relief if they started to gradually get the purse seine quota. I don't think the quota should be leased like that.

MR. BROOKS: Thank you. Scott?

MR. TAYLOR: I want to commend the

agency, because I remember when we had the meeting with Margo, and there was a discussion about a couple of things that we could do that was going to help the fleet, and one of them was the elimination of weak hooks.

So it's something that we asked for. So I do appreciate that at least we're examining it, just a little frustrated sometimes with the process of how involved everything is to get a regulatory change and some immediate relief.

From my perspective, things are always very, very simplistic, and I guess I got a little sidetracked when you were asking about the other areas of closure, and I want to take this opportunity to just say that I believe, with all of my heart, that the real future of our industry, in addressing the concerns of all the segments of this Panel, is the elimination, as a mechanism of time area closure, that we need and have to move to a real-time dynamic ability to be able to hold the fleet accountable and to allow for flexibility in the choice.

I think that you all don't understand, at least those of you who are not out there on the water, how much control we really do have of what we're catching. If we're going to go tuna fishing, we're going to rig in a particular way. What Tim was trying to talk about regarding swordfishing, the boats that are swordfishing in the loop current in the Gulf Stream are swordfishing.

They're fishing heavier gear; if they had their way, they'd be fishing 18/0 hooks there. It's a different technique that's involved. What we have relegated the fleet to are these areas where we can fish, and the only way we can make it financially viable for ourselves is to fish a broad spectrum of tackle that we can, to catch whatever is going to be commercially viable.

When I send a boat out there to be able to make a trip, it doesn't care, as long as it's a marketable fish. That's the way they have to rig today. It's not by choice, it's by regulation.

For those of you who are not fisherman -- those of you who are, you understand. If you're going yellowtail fishing, you're going yellowtail fishing. If you're fishing for bigeyes, you're going to fish for bigeyes. We fish for bigeyes different in the North Atlantic than we do when we fish in the FEC.

There are specific techniques that are associated it. You put the measures in place to require accountability, but then you don't give us the flexibility to do the very job that you're asking us to do, which is to reduce bycatch.

We've done this the agency's way, we've tried to do this on consensus, and the end result has been where we are here today, and all

I'm suggesting is a really different way of looking at this thing and trying to figure out a way to use the technology that we're implementing to be able to make real-time decisions to avoid the things that we need. Thank you.

MR. BROOKS: Thank you, Scott. Jason?

MR. SCHRATWIESER: Yes, thanks, just two points. First of all, I agree with what John said. I don't think there's any correlation with weak hooks in catching more white marlin. I think we're seeing the stock increase there.

Second, what specifically is the point about the Gulf of Mexico closed area? Well, there may be some looking into the Northeast Closure that's been closed for a long period of time. Again, we're only looking at three years.

We got a tremendous benefit from reduction of catch of bluefin tuna there, and from what we're seeing, after our discussions during the last four days, we're probably going to see a reduction of that stock every time under current management measures, without the corresponding strong year class following that up. So I agree; I think it's too premature to think about eliminating that closed area.

MR. COCKRELL: So just real quick, I wanted to respond to that, because a few folks have said it. In Amendment 7, we did commit to a review, after three years, of the Gulf of Mexico Area. So part of that is incorporating that commitment to review this area.

MR. BROOKS: Good point. Marty?

MR. SCANLON: I think one thing that we should remember here is that in a pelagic take reduction team, the two primary tools that are given to the fleet to avoid unwanted interactions are, first, communication protocol, and second, the ability to move to avoid unwanted interactions, and that's what we're missing in the fleet, those two things.

I got laughed out of the room when I introduced the communication protocol back in 2006. They said that the fleet would not institute that at all, and that is the number one thing in any take reduction team's plan, communication protocol, and our ability to avoid interactions, to be able to move.

And the more restricted areas you give us, the less ability we have to avoid the things that you want us to avoid.

MR. BROOKS: Thanks, Marty. So I don't see any more cards, and we're coming up on a break, so I think the timing here is good for a pause. I would just say that I'm hearing two broad strains: one, you put IBQs in place, you have these accountability measures; let them work and use them as a way to remove redundancies. Let the fishery use that accountability and give it more flexibility.

Another set of comments were, well, stay the course for now; it seems premature, too soon. I definitely heard, however, a number of people talk about the potential to loosen up on the weak hook, particularly on the seasonal restrictions. A handful of other comments as well, but that's a quick scan from my notes.

Anyone, final word?

At the end of the day, Glenn, does that work? I didn't see it listed as a public scoping meeting. My apologies, I don't think I knew this was a public scoping meeting. It's not? Okay. Anyway, Glenn, I think the is going to be public comment, 5:30; 5:15, actually.

Okay, let's go to break and be back here at quarter to four. Thanks.

(Whereupon, the above-entitled matter went off the record at 3:27 p.m. and resumed at 3:45 p.m.)

MR. BROOKS: All right, if we can now

get everyone back to table, we're going to get going again here.

All right, so let's get going again. Glenn, are you in the room?

So, not surprisingly, Glenn was correct; he gets paid to be correct and indeed, this was published as a scoping session so we do want to be respectful of that.

We also want to be mindful of our agenda but we wanted to give Glenn and, I guess, is there anyone else who came here to comment on this issue, this part of the scoping session? Area based and weak hook?

Okay, well, we can take more comment later. So, reaching, let's bring conversations to a close.

Glenn, we'll give you a couple minutes here just to comment and then we'll move back to the agenda.

MR. DELANEY: I'm really sorry to do

this and put everybody through it. I hear the groans, George over there groaning that he's going to have to listen to me again but I do appreciate the accommodation.

I did stay for this just for that purpose. I just wanted to say and this is, again, just with respect to the closed-area management review and weak hook reviews.

In my opinion, the northeast closed area, probably the Hatteras GRA and the Gulf weak hook are all redundant to the IBQ system.

Our obligation to ICCAT is to respect our U.S. allocation of the total allowable and sustainable mortality of this stock.

The output controls such as the IBQ are, in my view, the most effective, precise and efficient means to meet that obligation.

Quotas are finite and provide a huge incentive for avoidance of bluefin tuna.

The input controls that we have

layered on prior to the IBQ, such as area management and weak hooks, have been superseded and are now obsolete.

And they now really only serve to decrease the efficiency of the fishery, its economic viability, and undermines the Agency's stated goal to achieve a greater utilization of our ICCAT swordfish quota, which I would note if we do not utilize will eventually, notwithstanding our great negotiators at ICCAT, be re-allocated to other nations that don't achieve anywhere near the level of the high-catch or target species conservation in the U.S.

So, our failure to utilize that swordfish allocation and its reallocation to another notion is a net conservation loss and something we should avoid.

So, again, let's move to output controls, IBQ systems in place. Let's get rid of all the archaic, redundant input controls and allow this fishery to breathe.

Thank you.

MR. BROOKS: Thanks very much, Glenn.

And just to be clear, given that this was published, it's possible that some people, as Glen thought, thought the scoping session was today.

And right now, it's possible that some people thought there's a scoping session during public comment later.

So, we'll also take public comment on this topic at that time as well if anyone is here or comes in. And it sounds like, Shana, you were saying somebody might be coming.

Okay, so with that, let's dive into our last set of issues.

We've got five rec issues that we want to cover here, the first one is on HMS MRIP implementation priorities and then LPS redesign next steps.

And Yong-Woo Lee, from the Office of Science and Technology is here and we'll hand it off to you.

MR. LEE: Thank you, it's great to be here. I'm with Fisheries Statistics Division with the LPS, which is under the Office of Science and Technology, Fisheries.

I am the so-called the LPS statistician, I am responsible for producing LPS estimates based on the survey data.

Today, basically in this presentation, I'm going to give you a very general overview of what's involved in this LPS redesign. We are at the very early stage of scoping things out.

So, what is the motivation for redesign? Last December, December of 2017, there was an Atlantic HMS MRIP Implementation Plan.

The document was published and released and in the plan, there are about ten priorities identified. And this LPS redesign was ranked as the number-one priority.

And you may ask why was it number one in the ranking?

Because there was an NRC review on the LPS, not only LPS, including general service and the NRC identified several issues and made some recommendations.

And the issues they identified include departures from probability-based sampling and the mismatches between survey design and estimation, and then also, potential for bias from untested assumptions.

So, in order to solidify, we need to address these issues and propose a new design. So, here is a general outline of a redesign schedule.

We are basically categorizing it into four different phases from design development, and then build the testing and calibration process, and then a full implementation of the new design.

And we are expecting that it will take seven years, starting from 2018. So, the final year of implementation will be expected to be in 2024.

And in the next three slides, maybe four slides, I'm going to give you a little bit more specifics about each phase.

So, Phase 1, first we need to develop and build a project team.

It's going to be a team effort and it's going to be a combination of staff from our own Office of Science and Technology, and also staff from our HMS division and also some assessors from our science centers, plus some external statistical experts as consultants.

So, during the Phase 1 we need to make some baseline assessment of current design and this involved data analysis and possibly some computer simulations.

And based on the baseline assessment, we will identify the deficiencies of the current design and any of the gaps in the current data.

And based on the baseline assessment, then we will try to find the solutions to rectify the issues, and develop and propose a new design.

So that's the Phase 1 and we are expecting that it will take three years from now.

And in Phase 2, this design is just design, it's like a sketch of a house. So we need to do some field testing of the new design before full implementation.

And we are going to conduct a small-scale field test in the first step of the phase, which will be applied to only one state.

We have not selected a state that will be used for the small-scale field test.

And based on the small-scale field test, any issues will be identified and then solutions will be found and developed.

Then, once those small wrinkles, hopefully small wrinkles, are ironed out, we will apply this new design to all LPS's space, from Maine to Virginia.

And one thing to note for this field test is that it is very important to have this side-by-side sampling with the current design and new design so that we can see whether there is any systematic differences in the estimates between the new design and the older design.

And also this data from the side-by-side sampling will provide us some basis of doing a calibration.

So, this basically will provide some benchmarking data for the development and calibration.

So in Phase 3, once we finalize and develop the new design, we will do the review of the MRIP for the certification.

And during the Phase 3, we will also try to develop the calibration methods of the historical estimates based on the benchmarking data from Phase 2.

And Phase 4 is just the success of full certification. Once we receive an MRIP design, then we will fully implement this new design.

And at the same time, we will try to complete the calibration of updating historical LPS estimates.

This table nicely captures the overall timeline of the different phases over the years and we are expecting that it will take seven years from 2018 to 2024.

The highlighted cells indicate the number of years that we are planning for each phase.

And one thing to note is that there are some overlaps between the phases because some of the tasks in this phases will occur simultaneously to save time.

So, if you just count years for each phase, it's going to be ten years, however, because of the overlap between the phases, it will take us to complete the process in seven years.

And for any plans, there are some unforeseen, unfortunate happenings that could delay the process and the completion of the project.

And hopefully, that would not be a case for the LPS redesign but at least we have to recognize the limiting factors that could lead to a delay of the process.

So the number-one factor of course is budget. These field tests, generally, they are very expensive to conduct.

So to have this field test done in a scheduled time, we hope that the budget will be available in time and there are other factors, limiting factors, that could delay the process.

Some of them would include based on the highlighted studies and field tests, what if we have some signs of need for the additional design work?

And also, the field test may suggest that we need to conduct more highlighted studies in the field that could certainly delay the process.

Also, MRIP process is not done by just one person, it's a team effort as well so it could delay the process.

And also, in the Implementation Plan, one of the priorities identified in the plan is that there's a desire to extend LPS surveys outside of LPS's states, including the Caribbean and also Gulf States.

So if the desire is high enough, then we may have to extended the LPS design. And the design that would work for the current LPS states may not -- for other non-LPS states.

So we need to look into their data and their fishing situations to accommodate the needs of new LPS designs. So, all of these factors may prolong and extend the design process.

But again, we are targeting for 2024 to complete the whole design process, the whole redesign process, and then fully implement the new design for the LPS estimation.

That's all I have for today.

MR. BROOKS: Perfect, thank you, any questions?

MR. HEMILRIGHT: Yes, on the third slide, major reasons for redesign, am I reading this right that in 2006, NRC gave a review of criticism of this back in 2006?

MR. LEE: That's correct.

MR. HUTT: That was the general MRIP assessment that has led to all the redesigns associated with MRIP since then.

MR. HEMILRIGHT: So, 12 years later, we're starting to fix that and we're hoping 18 years later from the criticism, we're going to have it done.

Is that the general thought?

MR. LEE: I am happy that you are asking this question because I was expecting that this question would come up because of this time gap between the NRC review and where we are now.

Yes, it has been a long time but during that period, what I learned, I joined this Office of Science and Technology about a year ago.

And what I learned is that they conducted some assessments, baseline assessment. So, they didn't put this on hold during that period.

So, there were some studies but some studies need to be updated. Plus, those studies suggested LPS estimates are not too far off.

However, the main reason that this redesign process is number one priority is that first, we need to pass, we need to have this LPS design to be certified by MRIP so that the funding, Federal funding, will be available to continue this LPS survey.

And to be certified by MRIP, we need to address those issues more solidly. The bottom line of all the statistical estimates is that we want to make sure the estimates are unbiased with a better procedure.

So, this process is going to home in on those factors. Now, why will it take so long?

Because we don't want to make the same mistake. And plus, it needs field test and those are expensive and those take a long time.

But again, my message is that some of the preliminary analysis or previous analysis suggests to us that we are too far off, not for all species, but for major LPS species.

So that's good news.

MR. BROOKS: Dewey, something else?

MR. HEMILRIGHT: I just feel like it's almost going in the wrong direction.

Surveys, rare event species, all the other things in it, it should be more based on angler accountability of things. And that was just a comment.

Second, what's the budget for this, given the budget availability and time factors for potential delays?

Just a broad 10-day and $1 million, or what the budget is to do this survey?

MR. LEE: I'm not the right person to answer that question, however, because I just count the fish and make sense out of it, not counting the dollars.

However, in each year, the cost for LPS survey is somewhere around the $750,000.

So, in order to conduct the full pilot study, we are expecting somewhere around $700,000 needs to be available.

MR. BROOKS: All right, I'm going to move it up to Shana.

MS. MILLER: Thanks, and thanks for your presentation.

It's good to see that there's a plan in place now, and sorry if you said this, but for the historical recalibration, does it go back all the way to the beginning of the LPS?

How far back does it go?

MR. LEE: So this is what I've heard. There's some opposition of going back and updating the old estimates, and the old estimates are available from the early 2000.

And there are little ad hoc changes in the surveys so during this categorization stage, we will explore how practical is it to go back, how far to go back to update the estimates.

But it's one of the activities and efforts that we will pursue.

MR. BROOKS: Thanks. Rick?

MR. BELLAVANCE: Thank you, thanks for your presentation. I thought it took a long time to rebuild duskies.

(Laughter.)

I have two questions, if I can. The first one revolves around the APAIS survey that they used to collect data for all the different non-pelagic species.

Was there any thought given into adding a component to that survey, as opposed to going through a whole revamp of this LPS survey?

Now that the states have taken over that APAIS survey, is there any consideration that they may be equally suited to just add on to that survey?

That's my question.

MR. LEE: To simplify and give you

general message about the LPS redesign, I didn't include one of the options for redesign, which is called APAIS add-on.

So, yes, it's one of the ideas that needs to be pursued during the first days of the redevelopment phase of the redesign.

Thank you for the question.

MR. BELLAVANCE: Okay, this may be the same answer then.

So equally painfully slow is transitioning to electronic reporting for the charter/headboat sector along the East Coast.

And I was curious, as we do move towards that direction, has there been any consideration given towards a census reporting system as opposed to a survey to collect data from for-hire sector of the recreational component?

MR. LEE: I don't have a clear answer but it is one of the priorities spelled out in the Implementation Plan.

MR. HUTT: We are actively in the division participating in the SEFHIER process that's going on in the Southeast.

And Brad has kind of discussed this week that we've also been involved with the eVTR efforts and trying to integrate that with our reporting. So, we're actively looking into it.

We know at least in the Southeast, based on some of our estimates, that the overlap in permit holders is about 50 percent of our HMS permit-holders.

For-hire permit-holders have the Federal permits they're going to require in that reporting, and they will have to report everything including their HMS.

So we would definitely be looking at ways to integrate that into this process.

MR. BELLAVANCE: Just a quick follow up to that, I'm good with that.

I guess I'm thinking maybe a further step down the road and removing that survey component where they survey my customers and just use my catching-effort data as a census and everybody else's to replace that survey and maybe use those survey dollars for validation or something like that.

Is that also part of that whole process?

MR. HUTT: I think ultimately that would be an ideal goal.

Part of it, though, is we're kind of riding along with the various Councils and their processes because we don't want to have you guys reporting in two different logbooks, an HMS plus your Council one.

And they don't all entirely agree on everything in the reporting. So it's an ongoing effort to make sure we can get enough consistent reporting that we can do that.

But ultimately, that is what we would like to get to I think, but again, as has been said before here yesterday, we're not in the driver's seat on that process so we have to see how it evolves and whether or not, you know, it works.

But I think that's ultimately what the Agency is trying to get to.

MR. BROOKS: All right, I want to get to, Cliff, your update on the angling tournament survey but first, Mike, you have a question or comment?

MR. PIERDINOCK: Thank you for your presentation. I mean the MRIP data and the highest PSEs continue to haunt us.

Going back to 2006, going back many years, we had MRFSS and we had MRIP, and when that conversion occurred, then we had an issue with landings even going up much more higher than what they historically had been under the previous way in which things were noted.

And I have the same concern that things could happen here to our detriment. It's well overdue and it is needed.

One thing I would note is that you have indicated you're going to use one state in the design.

I would hope that it's taken into consideration with whatever state you take, one of the problems we have is that if you have a location where they're just going after swordfish for the day, that's easy to record.

That's easy to record effort; it's one species and so on.

But for instance, you come up my neck of the woods, we're going to after cod, haddock in the morning and then we're going after bluefin in the afternoon, and in the middle of the day we're going after sharks.

So the effort is all screwed up and

how then you record that effort is such that it's a little different than what you may do on a single species.

So, I would ask when you look at this, whatever state you select, you take that into consideration or take that into account, or we're not going to make any headway at all with where things stand now.

Because if I go fishing -- I didn't do one cod fish last year -- I'm a Federally-permitted vessel and they assumed every time I went fishing, I went cod fishing from an effort standpoint.

And that's what leads to PSEs that are incorrect with reality.

So this is long overdue, I hope it works, and I hope it does address the PSE issue and gives us an adequate representation of what we actually catch. Thank you.

MR. BROOKS: Thanks, Mike. Yong-Woo,

thank you very much and at this point, Cliff, I'm going to turn it over to you.

MR. HUTT: So, I am going to be presenting on the results of a couple of economic studies we have recently conducted in our HMS recreational fisheries, primarily the preliminary results of the tournament survey and the private-angler trip expenditure survey.

These were both conducted in 2016.

The HMS tournament survey as you'll recall had two components, one surveying the tournament operators to look at the expenditures of tournament operations and a tournament participant survey.

At that same year, we were conducting kind of a coast-wide Maine to Texas survey of HMS angling permit-holders about the expenditures of their most recent fishing trips.

And so I'm going to present on the expenditure estimates from these surveys, and then I'm going to talk about the economic impact analysis we did for all of them combined.

So, as you'll recall, the goal of the tournament survey was to qualify economic activity and impacts associated with these HMS tournaments. As I just said, it was a two- part study.

For the operators, we sent the survey to all of the tournaments in 2016 and early 2017. There was 220 of them; that's number's wrong there.

We excluded tournaments that were in the Bahamas or kind of those rodeo-style tournaments that are going all year round, where it's just guys reporting in their big fish, and kind of kept it to the more traditional tournament styles.

For the participant survey, we recruit about half the tournament operators to help us distribute information about the survey to get teams to report on their expenditures.

Overall, we received responses from a little over a third of the tournament operators and the regional distribution of those was fairly reflective of where the registered tournaments were.

And we received participant team responses from roughly 27 tournaments across the country and a little over 100 teams.

Not surprisingly, primary target species for these were billfish and yellowfin tuna.

So, first, I'll talk about the estimates of the sources of revenue for tournaments. Primary sources of revenue were registration and kind of the optional fees.

Those were kind of like extra registration fees for larger pots. Overall, the total estimate of revenues per tournament was on average $175,000 per tournament.

This expanded out to the total tournaments in the study was a little over $38 million in revenue brought in by tournaments.

Looking at their costs, primary costs was prize money paid out. Obviously, this varied considerably across tournaments. All of these things did.

The main talking point is the net earnings for tournaments was about $3.5 million overall, with an average earnings of around $16,000 per tournament.

For participants, average expenditures for participating teams, a little over $13,000. We estimated the total number of teams participating in HMS tournaments from the operator survey by getting average vessels per tournament and extrapolating that.

And using that number to extrapolate average expenditures, it came out to just under $86 million in expenditures.

Fifty-six percent of that was just in entry fees, kind of those optional entry fees.

We're not entirely -- that was a lot, that wasn't a terribly precise estimate given the wide variation in fees across tournaments.

But we weren't really using that number in the economic impact analysis anyways, as that would be double-counting the numbers used from the operator survey since that was what was funding the payments of all their costs.

But the other estimates of the expenses with boat fuel, lodging, food, those kinds of things, those were much more precise and more consistent across teams.

So, the other study was the angling trip expenditure survey, which was looking at the expenditures of private angling trips.

These were conducted across the entire HMS region except for the Caribbean. We sampled year-round North Carolina to Texas; for the greater Atlantic, Maine to Virginia, we sampled from May to October.

We sent out surveys to 4800 HMS permitted anglers so roughly about a quarter of our sampling frame, of our permit frame, and received responses for just under 1800 of them. So, really good sample size here.

Here you see kind of the distribution of that sample size across the regions.

We got our best responses in the mid-Atlantic, New England being the lowest, but every region got enough responses to have very precise estimates.

Over half of these were for their primary targets on the trips they report on were for tuna, followed by billfish and sharks and swordfish, and then either non-HMS being the primary target with HMS being the secondary target, like maybe their primary target was mahi mahi and they were trolling for marlin as well.

And then a certain 15 percent of trips just didn't specify what they were fishing for; they were like, anything I could catch.

On average, the average expenses per trip were just under $700, at $682. We extrapolated this based on an estimate of the number of non-tournament fishing trips conducted throughout the year.

This was estimated based on data from the LPS for Maine to Virginia, MRIP from North Carolina to Mississippi, and data from the LA Creel -- thanks for your help with that, Jason -- and Texas Parks and Wildlife.

Total expenditures for non-tournament-related trips was estimated at just under $47 million.

So, a lot less than the tournaments but when you take out that registration fee estimate, this number is actually higher.

Just over 60 percent of these

expenditures were for fuel, followed by bait, groceries, and things like restaurants and ice and other expenses.

So, using this data from both of these studies, we conducted an economic impact analysis in a program called IMPLAN, which is a pretty standard, most commonly-used program for these analyses.

And what this program does is it takes these sales figures from these different industries and it looks at how they circulate throughout the economy to support not only the businesses where the sales are happening, the expenditures are happening, but all of the businesses in the economy that support them, those secondary businesses.

It estimates labor income and it also estimates employment supported by the expenditures.

So, the results. Total employment

across the three studies was estimated around 1,400 individuals.

The total labor income was just under 70 million, total output was around 230 million across the three studies, and then average impact per tournament was estimated around $190,000.

Average impact per tournament-participating team for a full tournament was $12,700, and average impact from a day of HMS private boat fishing was just under $1,400.

A couple of caveats to note is we didn't model the impacts of the payout of the prizes at the tournaments because to do that accurately we'd have to have some idea of what people were actually spending that on.

And just commonly talking with some individuals, it sounded like a lot of what they were spending that on was more equipment or if it was a big tournament, maybe a new boat or something.

And a few years ago, we did the HMS durable goods survey which kind of captured that data, and we're getting ready to do that again in the next couple of years, or S&T's getting ready to do that again in the next couple of years.

So we felt adding that impact into this would be kind of a bit of a double-counting thing.

And with that, I can take any questions you have.

MR. BROOKS: Let's take a couple of questions here. Go ahead Scott.

MR. TAYLOR: It wasn't as much a question as a comment, which is why I laid the card down for a second, but I'll make it quick.

I think it's important to note that the biggest money that always gets laid out in these tournaments is the calcuttas.

The calcuttas are part of the entry fee. That's not in any way to minimize the economic impact the tournaments do have. They're a great thing and they put a lot of money into the economy.

But in order to really get a clearer picture of what the economic benefit is, you need to take the calcutta money out because that just trades hands.

It's sort of like a pool that the money goes into that gets divided up amongst the winners, and in most government numbers, the one thing that gets discounted is fuel.

It's not a number that we generally look at because there's not a lot of individual economic benefit except for the fuel companies.

So, what I would suggest is even though you have that, if you broke those numbers out, I think it would be a much clearer reflection of what the real economic impact was.

They're big numbers, in your ---

MR. HUTT: So, we actually didn't

include any of the pay-outs from the tournaments in the economic -- so the pay-outs to the winners, we didn't include that in the impact analysis.

It was included in the expenditures breakout but it wasn't included in the impact analysis unless the tournament operator was using some of that money to pay for operational expenses at the tournament site.

MR. TAYLOR: But -- and Dick could give you the answer, depending on the structure of the tournament, the registration fee, a lot of times, the majority of that is in fact the calcutta money.

It's not, you know, it's not ---

MR. BROOKS: Jason?

MR. HUTT: Just to clarify, that's actually what we found. The optional fees, that's basically the calcutta money.

Or if the tournament operator reported them, that was included there.

MR. TAYLOR: But what I'm saying to you is within the registration, there's always a base level that gets paid out to the participants and the winner. That's the biggest part of the number.

The optional fees are optional entry levels that come in, but still, the majority of the registration fees typically get put back to the prizes within the tournament.

They're not direct economic impact, that's my point.

MR. BROOKS: Let's consider that point heard and something definitely, Cliff, to be going back and looking at, for sure.

Rick, do you want to weigh in on that?

MR. WEBER: Only to that. Scott, that is the way it has been.

I can only speak for myself, I won't speak for absolutely everyone but I have gone back and restructured greatly and almost all prize money is now added entry.

And base entry is for the expenses of the event; it is for the attendance at the event. And the format used to be there was a base prize. I think I now only have one event with a base prize.

Everything else is, you're paying for the entertainment, the judging, the this, the that, and the format has changed a little, at least in the Northeast.

I won't comment on how it is down south, but for me, your statement is no longer accurate, though it did used to be.

MR. BROOKS: Thanks, Rick. Let's go to Jason and then up to Mike.

MR. SCHRATWIESER: Thanks for the presentation. When do you expect this to be finalized?

MR. HUTT: The goal is to have the report probably by the fall AP or at least the end of the year.

I'm also working on the mako team and several other rulemakings, so this is one of those things that doesn't have an expiry date on it but I plan to have this done this year.

Sooner rather than later.

MR. BLANKINSHIP: I would say in the overview presentation yesterday it was 2019, was what we said.

We're hedging our bets a little bit.

MR. BROOKS: Mike?

MR. PIERDINOCK: I just had a question with the slide that indicates charter fees with an average of $315.

If I'm going to take a group of guys and they're going to hire me as a -- my charter boat, I'm going to have these other costs and so on. I'm going to have that daily fee that I'm going to charge them in addition to these other costs. So, what exactly is the charter fee?

Is that just the captain and the first mate or the crew? Because I do have bait, food, fuel and so on, and other expenses. Am I correct with that?

MR. HUTT: So, there were some tournaments where people were basically hiring a for-hire vessel to go out.

And since we were surveying kind of like the team captain, if their primary expense is well, I pay the charter boat to take us out, then that's kind of what he reported.

So, he wouldn't have necessarily the information to tell us what that captain's breakdown of expenses were.

And there's a sector in IMPLAN that we can use to model that.

But we did back in 2013 do a more detailed survey of our for-hire captains about their operational costs, which was published a few years ago.

And ultimately, I would like to see that updated but right now, we've been kind of holding off with all the development of the for-hire logbook and all because there's been a lot of issues about what kind of economic data they might collect in those.

So we're waiting to see what comes out of that before we redo that again.

MR. PIERDINOCK: The costs, the other costs here look like they're pretty much -- that's the only thing that if I would take them fishing for the day for a typical two-day tournament, there would be a fee with that.

And then I have all these other expenses and the entry fee in addition to it, but that's the only thing that seems a little low. The rest does seem reasonable.

MR. HUTT: And I think it's wonky just because there were a lot of tournaments where it was mostly just private boats, and then there were a handful that they had chartered so it brought the average down.

MR. BROOKS: Thanks very much, Cliff. If there are no other questions, let's push on and, Jason, do you want to stay where you're at or come up here?

MR. ADRIANCE: Either way.

MR. BROOKS: Come on up to the --- so Jason's going to talk to us about the Louisiana Creel survey.

MR. ADRIANCE: All right, thanks, and Bennett's put me on the clock so I'm going to fly through this and if I skip over something quickly, catch up with me downstairs I guess.

So, what I'm going to cover is not just going to cover LA Creel because I felt like I couldn't tell the whole story without going over our recreational offshore permit, which kind of evolved first, and then we got to LA Creel and some lessons we've learned.

So, I'll start with the permit. What is it? We developed that in order to more accurately estimate our universe of offshore anglers.

And this is what started out as our yellowfin reporting, if you remember a presentation from way back when that I gave.

And one of the main reasons was these estimates of offshore effort were just -- the encounter rates and the estimates, we lacked confidence and there was just a wide range in the landings from year to year.

So, it's a free permit and the only folks that aren't required to get it are those that are under 16 and clients on a for-hire trip that, the captain's responsible.

And that list of species there are the ones that covered. It basically covers all the highly migratory and the reef species, and some coastal pelagics.

So, how did we get here? December 2011, we started with that yellowfin tuna reporting. That didn't get very much traction, not a lot of buy-in, but we added some reef fish in the summer of 2012 to that permit, and in the meantime, we had taken away the mandatory -- well, the reporting was still going on at this time.

In 2013, we went live with that permit and we had already dropped yellowfin tuna reporting at this point because it just didn't work.

And with this, this started with some intense red snapper quota monitoring and as you'll see, that's what later developed into LA Creel.

So, in 2014, we started LA Creel and that came out of this intensive red-snapper monitoring and the fact that we wanted to take the burden away from anglers in getting at those highly-migratories on the dock and these reef species.

And then a few other minor changes that you can read about there that are just, logistically, feedback from anglers and how we structured when the permit expires.

It's online-based and there are a few caveats: residents born before June 1, 1940 don't have to have a license but we have a mechanism for them to get this ROLP.

And then Texas reciprocal anglers, there's also a method there, and for our free fishing days there's a method as well.

This is something we struggled with for a while is do we charge a fee or do we keep the permit free? We kept it free for a couple reasons.

A fee would require us to go to the legislature. There would be more hoops to jump through and if we added a fee, not only would it cost anglers, it would cost us for each transaction.

But we wanted to keep it separate from the license systems to try to avoid some over-subscription and the example I always use with that is if you go into a third-party vendor and you're asking for your license and they're going through what you need, it's kind of like the HIP survey.

Do you need a recreational offshore landing permit? What is it? It's free. Oh, yes, add it on. And then we're back to where we were, we don't really have an accurate universe.

And as you can see, compared to 450,000 saltwater anglers, that universe is somewhere around 15,000. So the vested angler was a big deal.

Why did we want to separate offshore and inshore activity? Well, they're different. You can see there's some slight overlap. This is in numbers of fish.

I'm not going to go through it in detail, you can look at it. But two different fisheries, inshore and offshore. Why is it important?

Well, you just look at the breakdown of number of trips. For for-hire trips, it's generally about 14 percent a year that are offshore, and that number might vary by a percentage point every year but it remains pretty consistent.

And private angler trips, it's about four percent, and those percentages don't vary much either.

So, one thing this got us to, here you see a comparison of the year we did benchmark with MRIP. We did side-by-side surveys.

You can see some of the differences in our RSEs for the Creel and MRIP, and I'll point you to that little note on the bottom that yellowfin tuna PSE is down to nine percent for 2017. So, not bad.

And just a quick word about angler surveys, this also gave us a great database to survey our offshore anglers.

They're much more engaged and responsive than the average angler, we found. And this is just a quick example of one of those surveys that was before the 39-day opening that happened last year.

The survey was open for a very short time, June 5th to 7th, but we got a raw response rate of almost 33 percent and 50 percent opened the survey.

So, a lot of quick instant feedback from those folks in that database.

All right, so we'll get to the survey. How did we get here? Some of this I already covered. We've been involved with MRIP since the early '80s.

Like most folks, we began collecting that MRFSS data in the '90s and we found those issues, the inability to obtain reliable landings at a basin level, that was one thing we were concerned about for in-state data, insufficient sample size. Angler participation estimates always far exceeded our license frame.

The precision of the landings for many species were and remain poor, and those landing estimates were not timely enough for in-season monitoring.

So, how did we get here? In 2014 we divorced from MRIP as most of you know and we started LA Creel. So, during that process in January of 2015, we requested certification.

We had a peer review, NOA brought in statisticians and some of their science staff, and we sat in a room for two days and went through this peer review.

We did the side-by-side benchmarking

which I mentioned in 2015. That benchmarking evaluation of provisional certification happened in 2016.

We had a review of our estimate calculation that was done in 2016 as well and we finally, actually, just got certification just recently.

And I think I may have put the wrong date on there, it should have been January 2018.

And benchmarking continues; we're currently trying to calibrate our landings to MRIP landings and we're hoping in the next few months we'll be done with that process.

What was the purpose? Well, we had to have some purpose for this survey and it was to provide us with statistically significant recreational fishery information.

Not a big brain teaser there. We also sat down and before we started, we established some design criteria.

We wanted to increase the speed at which that harvest data can be compiled. We wanted to have a flexible design so we could quickly respond to changes in needs.

And we wanted to provide information on area-specific harvests, so back to that basin level within the state, and maximize survey efficiency and minimize burden on the anglers.

I think currently we're at six questions or maybe seven.

General methodology is an access-point survey that's dockside and a phone and email effort survey, and that effort survey is weekly.

And we separated our biological sampling so that the one isn't taking away from the other. When our biologists are going after biological samples, that's what they're doing.

When they're out there for LA Creel, that's what they're worried about. I'm not going to spend any time on this, you can look through it.

This is just kind of the data-flow process to get to those landing estimates. Another one that I'm not going to spend too much time on, but the point is we've broken things down into private and charter anglers, weekday and weekend.

We have our basins separated and we'll do pressures on those and then those go to our areas and they'll conduct the assignments. And this is a graphic of approximately how many assignments are done in each basin.

I think it comes out to 31 if you do the math, per week. And these are our basins.

Like I said, basin management was important to us within the state and for the purposes of LA Creel, that Mississippi River Delta is lumped together with our Barataria basin.

All right, just some key features that I've already mentioned, inshore/offshore stratification and separate biological sampling.

And I've probably covered this already but we wanted more representative-specific catch rates by directing those access-point assignments to sites with similar fishing activity.

We wanted that more efficient survey design by allowing those access-point surveys to be selected and focus on an activity, and to provide the flexibility.

The separate biological sampling program, once again, that provides us with representative biological samples that are based on where those species are landed, rather than where the majority of anglers are landing their catch, and provides time for interviewers to survey more trips when they're not having to worry about biological sampling.

So the effort survey is real-time from

our license frame. We draw those weekly and if you purchased a new license for that previous week that we're drawing, you're in the system. If your license expired, you're out of the frame. Same with that offshore permit.

And we do telephone and email so an angler has the option to answer the email by Tuesday or Wednesday and then we start calling if they don't answer us.

So, this is an example of the draw from our license frames. That ROLP frame, we draw about 400 anglers, however, we increase that to 800 during the red snapper EEZ season.

And then 30 percent of those charter ROLPs are drawn normally but it's 100 percent during the red snapper season.

So, what's that real-time frame provide for us?

It's weekly eligible anglers and so we'll capture those license spikes and drops, separate sampling frames for those groups of anglers, the ROLP and the regular saltwater frame.

We get a high level of valid contact information and once again, we can more efficiently target offshore effort.

This is just a graphic of our charter and private angler fishing trips by year. And 2017 is not on here but it's very similar to 2016, there's a slight difference in there, and those are the 95 percent confidence intervals around that.

Once again, key features of the estimate calculation, a lot of this is repetitive, I apologize, based on the level estimates and weekly landing estimates.

So, this is kind of a flow of how we get at that estimate calculation. I'm not going to go through it so Bennett doesn't yell at me but we can talk about this more if you want and you can look at it or you can ask me questions later.

But that's how we get at our weekly-adjusted landing estimate, and you can see there is an out-of-frame correction.

So, what does that basin-level information give us? It gives us some regional management options and we can parse out our landings by basin.

And this is just an example of that for spotted sea trout and red drum. I know this is a highly migratory panel, we'll get to those.

Those weekly landing estimates, those are important for us. We get near real-time estimates. We reduce recall bias by doing weekly.

Now, it is expensive, I'll admit that. And we get the flexibility to adjust effort and access-point surveys weekly if we need to.

So, our timeline of estimates, while

we collect everything weekly, we're about ten days behind when we get an estimate. So an effort survey for the previous week, which we can call Week 0 for this example, on Monday of that following week, we'll get the list of anglers.

We send it to our contractor who is the South Central Planning & Development Commission and they do our phone calls and our email surveys. We'll send that to them and they'll start those emails and phone calls.

Our coastal study areas get the list of charter captains and they start making phone calls or emails. Then during week one, that access-point data at the dockside is being QA/QC'd while the effort survey is being conducted.

And then as I mentioned earlier, Monday afternoon, those emails are sent out. Wednesday through the weekend, those effort calls are finished up, then Tuesday of that Week 2, we get all the email and phone data from our contractor.

We'll QA/QC that and then that Thursday of Week 2 we'll run the estimates. So, you can see the example down there.

If a red snapper is landed during the week of May 29, we have estimates on June 15 for that. Okay, highly migratory.

This is a graphic in numbers of fish of our statewide-landing estimates for yellowfin tuna and blackfin tuna for 2014 through 2017, and the confidence intervals around that.

And this is numbers of fish and this is combined private and charter landings.

So if you look, last year, that's about 23,000 fish for yellowfin tuna. Same thing for red snapper and grey snapper, once again in numbers of fish.

So, what are some lessons we learned in going through this process? You really have to understand your fishery and know where and how it's functioning, that was important.

The types of activity, like you see there, whether it's in shore or whether it's off shore, when are those deep-drop trips coming in? When are those offshore trips coming in?

Increases in precision come from an adequate number of representative dockside surveys. I mean, that's pretty simple to figure out, and that stratification on the graph you saw earlier.

So, this is a comparison in 2015 when we had the side-by-side with MRIP and this is just private angler, this doesn't include the charter.

You can see the difference in the number of fish landed based on the LA Creel estimates versus the MRIP estimates, a pretty stark difference.

Once again, the access-point surveys,

one of the things we ended up doing was splitting that Barataria basin into a north and south segment.

We found there were some differences there. Those offshore pressures at the southern sites mainly down near Venice and Empire, those were diluting some of the inshore site selections.

So, we adjusted that and that stratification allowed more directed offshore site selection.

And the survey only originally inquired about ROLP status for offshore trips when we saw those, but in consultation with the statisticians, we just started asking for MRIP.

So that allows us to separate inshore and offshore ROLP catch rates and pair those with the corresponding estimates.

We're still evaluating that statistical significance of those differences and under-coverage correction is applied just to the non-recreational offshore landing permit group.

The effort survey, targeting activities, saltwater licenses, ROLP, out-of-state, all these things were important in verifying that our questions are understood by our audience, just something as simple as did you fish from a boat makes a difference.

Because many types of structures, as you see there, qualify as shores. We had to ask that question a little more specifically.

It's important to ensure those charter trips aren't reported as private trips, paid trips versus gifted trips, consistency between private and charter effort surveys.

So, on the effort survey, we increased those number of contacts from the offshore permit group from 300 to 400, and that actually resulted in 50 extra completed phone calls and increased our precision, and we reduced some mismatches between dockside and effort, especially during the winter months.

There is still a very minor amount of that, but that has helped tremendously and you can see kind of the graphic there of the RSE versus the positive trips encountered.

So some survey adaptations and future considerations, we have a 50/50 A.M./P.M. split and so to adjust that for sites with offshore pressures to correlate to later return times, and we actually implemented this beginning this year.

That 25/75 split for that southern portion of Barataria, that includes Venice. Most of our trips were coming in in the P.M. so we've already shifted that.

Weekend, weekday split, our effort survey data shows that two-thirds of our trips are on weekends during peak months. That makes sense.

But are those catch rates different?

These are all things we're still looking at. And can efficiencies be gained by only serving one weekday-type?

Increasing sampling during red snapper season, that was one thing we did, and then meeting Federal needs, we've been asked to add a question about discards and targets and we've added those.

And then tying our biological data to the dockside data and exploring some electronic reporting options. So, these are all things we're looking at.

Internal evaluation of the full survey with the goal of reducing bias and error, 2017 is listed there but that's ongoing and we're constantly doing that.

And we're actually compiling a three-year report that hopefully will be done this summer. We're always discussing future improvements.

I think we meet months on LA Creel to talk about what can we do better?

And now that certification is complete, as I've mentioned, we're working on benchmarking so we can rebuild that recreational catch history and get a common currency.

Sorry I flew through that but I'll take questions.

MR. BROOKS: Let's see if there's any questions for Jason? Yes, Mike?

MR. PIERDINOCK: Jason, I want to thank you, a great presentation. It's nice to see such an evaluation done by your state.

The Commonwealth of Massachusetts has done a similar process in state waters and it really is a perfect example how if the state spends money and implements it and increases dockside interviews, how that has a positive impact on PSEs and everything.

And that was frustrating for your

state and mine to see other states then not do such, and we suffer with the problems with that.

I'm curious, I know in Massachusetts, we go by private angler, private boater, charter headboat, and party for hire.

Do you separate it out that way or do you do any more type of breakdown into how you evaluate?

MR. ADRIANCE: No, it's just private anger and for hire.

MR. PIERDINOCK: And last thing, that one graph with the PSEs going way down, I think you just completed Phase 2 of the LPS redesign.

We don't have to wait seven years, we can jump right into and hopefully they can learn from you in a few other states.

Is the main thing you're seeing that it's the having enough interviews that's driving the problem with the PSEs?

What's the main factor that you see as

impacting the data and the results?

MR. ADRIANCE: Well, it's simple statistics, more samples, better precision.

MR. HUTT: And that was what the LPS was originally designed to do for HMS species. That's all offshore intercept.

MR. BROOKS: Thanks. Rusty?

MR. HUDSON: Just a quick question, Jason, HMS doesn't have a blackfin tuna. South Atlantic Council doesn't handle it.

Does the Gulf of Mexico handle it over there?

MR. ADRIANCE: No, I just threw that one in because it is actually one of the more commonly landed species, well, highly migratories.

MR. HUDSON: That's what I liked seeing was the fact that you had a nice collection of blackfin tuna, you know?

It's something I haven't seen down at

the South Atlantic. It's good stuff.

MR. BROOKS: Thanks. Marcus, please?

MR. DRYMON: Jason, I've always wondered how much that survey cost?

MR. ADRIANCE: It's about $1.2 million a year.

MR. BROOKS: And they were just about to implement it. Have you seen any other cards? No.

MR. PIERDINOCK: Interesting comment, the saltwater fishing license in the State of Massachusetts to fish in state waters, that money specifically goes to recreational measures specifically goes to exactly what you're doing.

So we use that as a mechanism to help fund it and I believe, Ray, it's $10 per angler?

So there are other ways to do this, as much as we don't want to tax or increase any fees.

MR. BROOKS: How did you get that money allocated?

MR. ADRIANCE: I was going to answer that.

So, to our recreational angler's credit, we proposed a $7.50 increase on the saltwater license for LA Creel and that went through the legislature without opposition.

So, they put it on their backs to pay for it.

MR. BROOKS: Was that a hard sell or no?

MR. ADRIANCE: Actually, it was not as hard as I would have thought it was. It actually went through pretty quickly.

MR. PIERDINOCK: We made sure that recreational license money went to recreational matters only and there is actually a panel that I'm on that we ultimately manage those fees.

It cannot go elsewhere, I know that's been a problem with other states because they can't get that level of commitment.

But once again, it helps the MRIP, helps the process and maybe someday, we'll see we go down this road in other states or we'll be saying the same thing 10, 20 years from now.

MR. ADRIANCE: Yes, that $7.50 increase, that's earmarked for LA Creel.

MR. BROOKS: Tim, is that your card up?

MR. PICKETT: Yes, I just wanted to say they called me, they were very, very pleasant and it was a wonderful experience and congratulations and great job.

MR. ADRIANCE: Thanks, glad to hear it.

MR. BROOKS: Rick, did they call you too? No, go ahead.

MR. BELLAVANCE: Jason, thank you, that was really interesting.

If it gets too into the weeds we can talk later, but if I've got your presentation right, what you learned from the comparison of the MRIP with your program is that MRIP was underestimating effort and underestimating catch. Is that what you came up with?

MR. ADRIANCE: So those encounter rates of those offshore in particular were very low.

Previously, Venice might have come up in an MRIP draw once a month, and their effort estimates, we always saw those as way overestimated.

Our saltwater licenses, roughly 450,000 and the participation numbers just were two-thirds higher than that.

MR. BROOKS: Great, well, thanks, Jason, very much, appreciate it.

I want to just see whether we have public commenters or anyone that wants to comment on the public scoping for the longline bluefin tuna weak hook in area-based management?

One commenter on that, okay. All right, so we've got one comment and, yes, one more coming, one person's coming we think.

Okay, right, so I'm just trying to get a sense. So, Glenn, please. Great, we're not going to take them yet, I just wanted to get a feel for how many comments we have, commenters.

Yes, and on the phone, do we have anyone for a public comment or for the public scoping session? Okay, so we've got three people in the room to make comments.

All right, so we will make sure to get a fourth -- oh, I think that may be the third, not the fourth.

All right, so we'll make sure we have 10 or 15 minutes set aside so I think we have until about 5:15 P.M. as planned.

So, do you want to leap over the circle-hooks and go right to the --

MR. BLANKINSHIP: Okay, so in the

adjustment schedule here, Brad is going to go ahead and give a little bit of a presentation on the request to allow filleting of tunas at sea on headboats.

And the reason why we're going to change this order a little bit, and I think what we'll do in the interest of time, we are looking at kicking the circle hook use in billfish tournaments discussion probably until tomorrow if we can fit it in, in order to keep our schedule for public comment.

And with the circle issue, that was one that was raised in the past and we talked about it actually in the fall.

And this is actually the same presentation again, attempting to be able to -- there was one AP Member that wasn't here in the fall who this was a particular issue that that person had commented on during regulatory reform.

And we wanted to give that opportunity

for that Member to be able to participate but he wasn't able to attend this Meeting either.

But we will still give that opportunity, but we'll do it tomorrow. In the interest of time, we're going to shift the schedule a little bit.

MR. BROOKS: Thanks. Brad?

MR. McHALE: All right, so essentially, this as an issue that had been raised I believe at one of the prior AP Meetings as well as some requests to put it on the agenda to raise this issue of whether or not we should be considering allowing filleting at sea.

And the request initially had come in from more of the headboat operator perspective. Since that point in time, we've gotten additional interest from our charter fleet as well.

We have some letters in hand requesting the same consideration, and I suspect that as we get into this dialog, anyone that fishes would like that same consideration.

So, that being said, the premise for this was apparently the State of New Jersey actually has a fillet permit that does exempt headboats and essentially allows them to fillet at sea.

And I'm currently as we're looking into this issue, I'm also collaborating with our partners on the West Coast, where they have some filleting considerations in play for their Atlantic tunas.

A little bit of the background and history is that we considered this option about 12 years ago in the consolidated HMS FMP.

At that point in time, we did not proceed forward with authorizing any sort of filleting at sea for Atlantic tunas.

And the primary concerns there were there were really no good answers at that point in time on how we would do species identification between bluefin, yellowfin, and big eye, as well as albacore to a less degree, as well as how do you then in turn enforce our minimum-size requirements, where we do have different requirement for yellowfin, bigeye, and then in turn the Atlantic bluefin tuna.

So, essentially, we just wanted to open this up for some discussion, some potential consideration on whether or not the Agency should pursue something in a more formal fashion whether it be consideration of any future or forthcoming EFP requests, formal rulemaking, what have you.

But as a courtesy to the including inquiries, we figured we try to get a little bit of air time around the table to hear what may have changed since that 2006 FMP consideration regarding species identification and proper enforcement of those size and species ID concerns.

And essentially, we'll open it up for

any sort of dialog at that point.

MR. BROOKS: Short presentation inviting conversation.

David and then Dewey?

MR. SCHALIT: I think that we need to acknowledge the similarities and differences in this case.

Number one, yellowfin has a very dark red meat, big eye as well and bluefin too. Number two, yellowfin is a medium pink.

Number three, yellowfin is a light pink. Albacore is even lighter than that. Probably albacore is the easiest to identify filleted.

We have had problems in the past in connection with misidentification to bigeye and bluefin of a certain size.

In other words, let's just say, for example, they got up to the size that would be equivalent to a small, medium.

Bluefin is very easily misidentified either way, bigeye or bluefin.

Now, the complexity comes from the fact that most recreational anglers or many recreational anglers that I know of will not eviscerate the fish until they get ashore, in which case, that means they have the liver to available to inspect if you want to identify.

That is the easiest way to identify a bluefin from a bigeye.

But the proposal here involves filleting bigeye, let's say presumably at sea, where you would not have anymore, it literally would no longer exist, you would no longer have the pectoral and second dorsal fin relationship to work with.

So, that fish could look like a number-one quality yellowfin or the meat of the bluefin or the meat of the bigeye.

So, if we are concerned at all about

proper identification, I would say that the one fish that you might not have a problem filleting would be albacore.

The rest, it's going to create problems for us.

Thanks.

MR. BROOKS: So, David, you're not weighing in with your own sense but rather just a take of what you're left with in terms of ability to ID?

MR. SCHALIT: I'll be clear.

I believe that in order to properly identify these species, we should not allow filleting of any species, other than any of those species I mentioned other than albacore.

MR. BROOKS: Thank you for the clarification, that's helpful.

MR. HEMILRIGHT: I was hoping it seemed like this is kind of like a fishing expedition a little bit, what you're asking to provide comments on.

You stated that New Jersey has a filleting permit, correct? And that pertains to state orders?

MR. McHALE: Not quite.

If you don't mind, Bob, if you wouldn't mind taking the microphone and kind of explaining some of your understanding of that New Jersey permit and the specifics of the request? Thank you.

MR. BOGAN: Right, what we have now, I think New York has a filleting permit too. I might be wrong about that but we're allowed to fillet at sea almost any other species.

What we were proposing originally, in a large party boat you have 20 people, that's kind of a light crowd actually, and if everybody caught two fish, that's 40 fish and we only three deckhands.

We get to the dock and we're filleting

for hours. People get very aggravated and there's only a few of us left.

So my original proposal was that we could put a tie-back tag on the rack of the fish, save the rack of the fish, put the cores, the loins in a bag, all four loins in a bag, put a tie-back tag on that and just coordinate those two tags.

And I just think it would lower the burden for us.

Originally, I wasn't even going to ask you for bigeye, I wasn't going to ask you for bluefin, just yellowfin alone because that's our predominant catch.

But I mean, if it could be included, it'd be great. That's just my thoughts, I'm sure there's more to it but I can't remember right now.

MR. BROOKS: Dewey, you want to weigh back in here?

MR. HEMILRIGHT: Yes, I'd like to hear from enforcement, the Coast Guard, but also, I don't understand how New Jersey can have a fillet permit in Federal waters.

I don't know of any fillet permit that's available or there for the species. I think maybe you need to do some more homework and I can't help if there's frustrated customers because somebody maybe needs to clean faster.

So we need to hear from enforcement, from Coast Guard, we need to hear the comments that are given to the public that y'all have received.

It don't feel like there's homework done to bring this before this AP on this issue.

MR. BROOKS: Thanks, Dewey. Greg?

MR. MAYER: Yeah, I've run into this situation before but I'm kind of with Dewey.

Species identification would be really tough except maybe with a yellowfin or an albacore. But bluefin or bigeye, they look so similar you wouldn't be able to tell the difference.

I know maybe with the yellowfin, if the fillet or the loin is 27 inches which is legal, which would kind of go back to what we were talking about, mutilated tunas also.

But what you have left if it's legal might work but I think species identification would be really tough.

MR. BROOKS: Thanks, George.

MR. PURMONT: According to Erik Prince, I didn't know, but many of you people probably wouldn't get the humor of that.

But I think the concept of fish identification is important and I think that if there is a question as to what species it may or may not be, it should not be filleted.

But if it's blatantly obvious, then I don't see a problem with it.

MR. BROOKS: Thanks, George. Mike?

MR. PIERDINOCK: Thank you, I'm on the Board of Directors of the Stellwagen Bank Charter Boat Association and AS.

I speak on their behalf today and I believe they submitted comments via letter. We're a little different.

All of you are fortunate to have a diversity of species down your neck of the woods but where we fish north of the cape, we just have bluefin tuna.

So, that makes it a little easier from an ID standpoint. That's the only thing we're requesting here, that it would be bluefin that you could bring in.

This is 2018 so let's take out a measuring device and take a photograph and let's take that approach.

We are allowed with certain groundfish, fish in the Federal waters, and some other species that we keep the skin attached and are able to bring it in.

So, we won't also request in this because of some of the smaller boats that come in and have to go off a ramp.

There's limitations when they come and off that ramp, that you can't do any filleting at the dock.

And some docks too, that's just starting to disappear up our neck of the woods unfortunately.

So, in addition to that, if we're going after bluefin like last year, it could be a couple miles offshore but we sometimes 20, 30, 40 miles and we'd like to be able to be provided the opportunity to fillet at sea so by the time we had that long day go by, we can come back to the dock and have everything cleaned up and let the clientele go.

So, thank you.

MR. BROOKS: Thanks. I've got Shana, Jason, Rick, Rusty.

MS. MILLER: Just really quickly on the California fillet program, that rule is less than two years old and we've been hearing concerns from fishermen, and it sounds like maybe you heard this from California as well, that there is misreporting of species and number of fish based on using this loining as a loophole.

However, the rules do not require retaining the carcass and I think that could be a different ballgame. Thanks.

I said Rick, I meant Bellavance, but I also see Weber down there so we'll take the Ricks.

Rick Bellavance first?

MR. BELLAVANCE: Thank you.

So, I think what we're trying, what Bob's trying to get at and what I think a lot of us in the for-hire industry are trying to get at is just to make our day a little easier and to come up with a process that enables our customers to get back in their car and get home a little quicker.

Our customers come back because they have a good day and they have a fun day. They get back after a 12-hour day, these aren't fishermen, these aren't people that spend their lives on the water.

They're on the water once a year and a 12-hour day on the water kicks their ass and they just want to go home.

So to find them sitting around the dock waiting two hours, three hours, for them to cut through all the headboat's worth of the bluefin or yellowfin or whatever becomes a burden that they remember and that's their last memory as they're driving up the road.

And so they may not want to come back. They're like, well, that was fun, I'm glad I did it, check it off the box and never come back.

So I think this is an attempt to help us help our customers, and Bob's approach to the filleting would make sense to me, where we're not throwing the frame over, we're keeping the frame, we're keeping the four pieces.

That takes a lot of time to cut them up like that and if you can get the four pieces that go to that fish taken apart, that saves you a tremendous amount of time when you get to the dock.

And then if enforcement comes on the boat, you go these four pieces go with that tuna, these four pieces go with that one, and then there's no species problem, there's no over-the-limit problem, possession limit problem, or anything like that.

You can show exactly what you caught, it just saves that step so that the crew on the way home can go through that, at least that, one half of the filleting of the fish and save some time for our customers.

So, I think that's what Bob's trying to get at and that's why I support it. Hopefully, you can work something out.

MR. BROOKS: Thanks, Rick. Let's get the last few in and we are coming up against the public comment.

So, Rick Weber?

MR. WEBER: I see Robert's coming up in cue so I will let him follow up on this but I believe in New Jersey this is only a party boat filleting permit, and I believe that the argument having to do with enforcement was there.

The only boats that could conceivably have an undercover office are on there without anyone knowing who he is or where he is, and they can be monitored surreptitiously.

None of the rest of us -- private, commercial, even charter -- don't have the ability to have someone on board your boat that you don't know is enforcement and I think that was a key component.

And I don't know if the rest of the states have gone to this insanity but in New Jersey, fish-cleaning table runoff is not allowed back in the water and you have to root it off to sewers.

And it comes from the water, you add some water, you don't put it back. So, New Jersey's got plenty of weirdness going on.

MR. BROOKS: Thanks, Rick. Jason?

MR. SCHRATWIESER: Thanks, I want to reiterate some of the comments that I've heard already.

A standard part of my job is game fish identification and I'm surprised how hard people have with tuna identification with pictures of whole fish.

I think that just loins would be very

difficult.

If you're going to go that route, I would definitely suggest keeping frames somewhat associated with those pieces so you could identify those fish.

MR. BROOKS: Thanks. Rusty?

MR. HUDSON: Thank you. Normally, we'd have Anna Beckwith here as our South Atlantic Council liaison for the HMS.

We have completed recently a joint amendment between the Dolphin-Wahoo Amendment 7 and the Snapper-Grouper Amendment 33.

I'll read the summary and just leave it at that because Anna will get into the details as the chair of all that, and Michelle: Allow Dolphin and Wahoo filets to enter the U.S. EEZ after lawful harvest in the Bahamas.

Specify the condition of any dolphin, wahoo and snapper-grouper filets, described how the recreational bag limit is determined for any filets, explicitly prohibited the sale or purchase of any dolphin, wahoo, or snapper-grouper recreationally harvested in the Bahamas, specified the required documentation to be on board any vessels to have these fillets specified in transit and stowage provisions for any vessels with fillets, and they got ID.

Now there's a lot of law enforcement input but that's just for that little short jaunt between the Bahamas and coming in in South Florida.

MR. BROOKS: Thanks, Rusty.

Bob, did you want to fold in something else?

MR. BOGAN: Just somebody said I'm sorry if I didn't see who it was but it was mentioned that it wasn't a burden really for our guys but again, I just want to reiterate, three deckhands, 40 sometimes 60 fish, sometimes more between yellowfin and longfin.

So it is a burden, we could be there for hours and hours. We have three deckhands. This is the common man's way to get out there and fish for tuna.

A lot of guys can't afford to do it otherwise, and they're being disenfranchised. There's only a few party boats left doing this.

MR. BROOKS: Thanks, Bob.

So, just a good deal of reluctance but it seems like some possibilities from whether if there are some species that can be uniquely ID'd, perhaps albacore, unique locations, the Northeast, where they're just bringing in one species, retaining the frame with loins, and maybe using technology, photo ID.

Brad?

MR. McHALE: And I just wanted to be clear, the Agency doesn't actually have any formal proposal.

It was literally just to have this

discussion, that quick brainstorming session, so thanks everyone. I know tomorrow on the agenda we do have the office of law enforcement.

We've been consulting with them like we do on all these matters, so I suspect that they'll have an opportunity to voice their opinions on this matter tomorrow as well for the panel to hear.

So thank you for your time.

MR. BROOKS: Okay, thanks everybody.

So let's go to public comment, and again, this can either be general public comment or comment as part of the public scoping of the earlier conversation on the bluefin tuna, weak hook and area-based management.

So I think we've got two people, two or three people, one, two, three, all right. So, why don't we start over here?

If you can just come up to the table and get by a microphone? Pat, I missed your card. What's up?

MR. AUGUSTINE: The cookies are gone so I guess I don't count anymore but that's okay.

MR. BROOKS: Are we that transparent?

MR. AUGUSTINE: I had some more but I'm taking them home.

On the subject, I think our fishermen on Long Island would some this filleting at sea for tuna.

Again, I was a mate for 13 years and I know what Bob is talking about when the mate is going like a lunatic trying to make it back.

But I am concerned about making sure that the rack of every highly migratory species is on the boat.

And if the mate could go so far as to label the bags of the fillets, boy, that would be outstanding and I don't think there would be any questions from anybody at the dock complaining about it.

But I think it would be a very important -- quality of the meat itself is improved probably 300 percent by doing them in the fillet form. So, there.

Thank you.

MR. BROOKS: Thanks, Pat, and you've got another evening to bake more cookies.

Okay, let's see, first speaker, do we have a first public commenter up at the table? Gentlemen over here, where did the person go?

There you go, once you take a seat and get yourself to a mic. And just to all the public commenters, we have the room until 5:30 P.M.

And we do have to get out pretty much on time so I'd ask everyone to just keep their comments to a couple minutes. Please?

And if you could start with your name please?

MR. PEREIRA: My name is Charley Pereira, I'm from North Carolina.

I run a charter boat called the Sushi out of Pirate's Cove Marina and also have been writing on behalf of initially, individually myself writing and speaking starting in 1996 at an NMFS Silver Spring Meeting, attempting to get a dedicated quote for bluefin tuna for North Carolina at the time.

From that point, we transitioned into the Winter Bluefin Association, which was largely headed up by Pete Manuel and Rom Whitaker back in the time.

And at some point there in the late '90s, they asked me to start doing most of the writing for them.

And then when Pete decided he wanted out of it, he asked me to take his place as the Executive Director of the winter bluefin Association.

Subsequently, to better represent us since we started catching fish into May and occasionally June, we renamed it the Southeastern Bluefin Tuna Association and that also helped us represent some of the people down in Hilton Head and South Carolina that were catching these fish also at the time, as well as people in Virginia.

So, my comments are basically as a charter/headboat person, primarily with respect to our participation in the General category quota.

Brad and I have had a lot of communication about this lately so he shouldn't be surprised by most of it but some of you will.

I'm going to start from the beginning, just in chronological with respect to the presentations that I've seen this week. One, Brad, there was a plot of the export versus domestic.

I think some people may have said it but I'd like to see that compared as a function of the Yen to the dollar to see if there's any relationship there. I was curious about that.

The ice carrier requirement that I heard about, I've always been told by my buyers that a wise practice is one pound of ice for each pound of fish.

I think it's a shame how some of the quota gets treated like we heard other people talk about, going out there just for the glory and who cares about how you take care of the fish.

And that's reflected in some of the people that didn't get any money back or got a dollar or two dollars.

If there's any way that we could do something regulatory-wise to prevent that from happening via ice and care requirements, that would also I think help some of the more dedicated fishermen out by weeding out some of the stragglers that don't take care of their fish.

I think I agree in particular with NMFS getting involved somehow in the promotion of

BFT in the USA as sustainable.

I think we've done more than probably any country in trying to protect the bluefin quota.

And so to the extent possible, a lot of chefs view it as ten years ago there was a big effort to get chefs to not carry bluefin tuna because we were about to go out and catch the last bluefin tuna.

I think we've shown that's not the case and it would be nice if our Government could help us promote otherwise. It might improve our dollars per pound.

Let's see. All right, with respect to the O'Neals fine, I think there needs to be some looking at that too.

You know, $1,000 fine for being two days late, I talked to Sarah about that and she says there's no excuse for that from her perspective from having worked out in the industry.

But since that's who I sell my fish through, I thought that was a little bit surprising.

And looking at your plot, two days, you know, getting a fish report from a fisherman on a Saturday and having them report it on a Monday I don't think cost you guys any timeliness because I didn't know if you guys were counting on Saturdays and Sundays as well.

But I was a little surprised by that and I thought the penalty should fit the crime.

You know, if it didn't affect your count or keeping track of the fish anyway, why are they getting a $1,000 fine?

With respect to there was one discussion about one of our particular problems, sharks biting off our fish and us not being able to keep them, I think it would be relatively early per my discussion with Sarah at one of the breaks to have -- you were going to let in Pirate's Cove and other fish-houses, Sunset Marina, develop relatively quick.

We could get you several 10,000 counts of jaw-size versus fork length, as well as another biologist over here mentioned something about distance from the eye to the tip of the nose, things like that that could very easily establish a relationship between the leftovers that we get after the sharks and allow us to get back to the dock at lunchtime or 1:00 P.M. instead of 4:00 PM, having to fish for whole fish.

I've heard something from Rich Ruais; I talked to him before this Meeting.

He said it needs to be pointed out, I didn't hear any conversation that, that ICCAT wanted to givethe US 2,500 metric tons or the western TAC 2,500 and our country said, no, thank you, we only want 2,350.

Basically gave away 150 tons, which is

more than three times our base quota in North Carolina. That pissed me off. I'd like to hear something about that.

As somebody else mentioned, we should be doing what ICCAT asked us to do, not go further than that, respectfully, Shana over there.

I heard that the environmental portion of the United States wanted it to be 1,000 tons instead of 2,350. So, that was rather shocking to me also.

Moving on to one of my bigger points, from 2017 to 2018, the bluefin tuna quote increased by about 214 tons based on the ICCAT, yet, the North Carolina quota decreased in 2018 for the January to March fishery.

It went from 108 tons to 59 tons. The 2017 fishery also left 183 tons which should have left us with 108 tons for carryover for this year.

We also know that we have 180-something tons of purse seine to be carried over.

And when you add all that up, my data show we have about 506 tons of bluefins quote for NMFS to play with and decide where it's going to go in 2018.

And yet, in North Carolina we got shut down last week, right in the peak of our season with a month to go because NMFS says that, as I understand it, they're instead they're going to have enough quota left to provide us with anymore for this year.

I think 506 tons of playing with, we should be able to get 50 tons, which is what I've been asking for since December in writing and verbally.

MR. BROOKS: Mr. Pereira, if I could just ask you to wind down because I do have some other people who want to get into the queue.

MR. PEREIRA: Okay, let's see, the relatively new January to December bluefin fishery as opposed to the old June to May 31 fishery unfairly penalizes the January to March fishery via delay in the reserve buildup, as well as a delay in the calculations of underharvest and pelagic longline dead discards.

It's another way that we get penalized.

I'd like to see the dealer in the boat-reporting compliance broken down into sub-periods, states, and months so that we can see exactly where the enforcement needs to take place.

The slide that you showed, Brad, showed 4,591 fish on the reporting slide versus 4,593 fish on the summary slide. That shows that dealers reported 99.96 percent of the fish.

Seventy-six percent of those were reported in under three days and based off that and the slope chart that you showed, the slopes on your catch-rate slide show that HMS can easily predict quota achievement date via simple extrapolation of that slope.

And the dealer reporting delay history within the statistical data that you have for dealer-delay reporting history.

Thus, HMS can easily do a conservative shutdown of bluefin tuna seasons with the existing data, and then do a three-to-seven day catchup calculation to see exactly where you are, and then either leave it closed or re-open it.

And thus, in my opinion, enforcement penalties and fines that you said are getting ready to start increasing on dealers and fishermen, should be minimal, and in measure to the actual damage that was caused to the fishery by the lack thereof, not just the flex muscles.

MR. BROOKS: Mr. Pereira, I'm just going to jump in now and ask you to hold the remainder of the comments, let the other folks speak, and if they're not kicked out of the room, I'll let you take another bite.

Okay?

MR. PEREIRA: I was told that this was public only and that I couldn't speak at any other time. That's why I've been saving it for two days now.

MR. BROOKS: Indeed, this is public only, it's other members of the public I'm trying to let get into the queue.

And I apologize if you missed the public comment yesterday which is unfortunate, but let me let some other folks talk here and again, if we're not getting kicked out of the room, we can get you back in.

MR. PEREIRA: No problem.

We've made that comment in the past that there should be a little bit more than 15 minutes allowed for public comment at these.

MR. BROOKS: That's a fair comment, thank you. I appreciate that. Who else?

I think there were two other people

who wanted to get in. Please, if you could start with your name?

MR. CROCKETT: Sure, thank you, my name is Lee Crockett and I'm here as a member of the public.

I'm going to limit my comments to the proposal to modify the Gulf of Mexico restricted areas. Some of you may know I was very involved in the development of these restricted areas.

I've been involved with fisher management in the U.S. for over 20 years in both the Government and the NGO community.

And I have to say that this effort was one of the most thoughtful, innovative, collaborative and well-researched projects that I was involved in. And it's working.

So, I'm frankly amazed that just three years after it went into effect that NMFS was suggesting they might eliminate or modify it.

First, the rationale for these restricted areas in the Gulf of Mexico, the reason for the restricted areas in the Gulf of Mexico is that it's a major spawning area for the Western stock of Atlantic bluefin tuna. Protecting these fish is critically important because they are the large spawners, and the only reason they're there is to reproduce.

As I mentioned earlier, the restrictions are working.

According to the scoping document, bluefin interactions have been reduced by 82 percent in the restricted areas since we were implemented in 2015.

That is way better than we thought and we could have hoped for when we were working on this.

NMFS was very careful in citing these restricted areas while we in the NGO community were calling for a much larger restricted area over a longer period of time.

NMFS based on years of data zeroed in on the months with the highest number of bluefin in the Gulf and the geographic hotspots.

This was intended to minimize the economic impact on the longliners while providing protection for bluefin when and where it was most needed.

While data in the scoping document indicates a decline in swordfish catch in the restricted areas compared to 2013, in 2014 the catch of yellowfin tuna has increased by according to my calculations 31 percent.

And yellowfin tuna historically has constituted about 80 percent of the long-line catch in the Gulf so that should help to offset any swordfish, loss of swordfish catch.

I know also in the scoping document, it makes no mention of the scoping provisions in Amendment 7 that were designed to mitigate the negative economic impact of the restrictions such as allowing to the restricted areas to vessels using alternative gear-like green sticks.

As you know, research funded by the National Fish and Wildlife Foundation showed that green sticks offer great promise as an alternative to longlines for catching tuna, and we're very selective with very low discards.

And we actually have the PI for that research in the room here.

Also missing from the scoping document was any mention of the National Fish and Wildlife Foundation's program, which uses BP early restoration funds to pay longline fishermen not to fish when they can't fish in the restricted areas.

And the 10 longliners are participating in that program right now.

The NFWF program also allows funds to be used for the transition of longline vessels into green-sticks.

So, in sum, I urge you not to modify or eliminate the Gulf of Mexico restricted areas. They are working better than we originally thought.

Any economic losses are offset by increases in yellowfin tuna catch.

The opportunity to fish in these areas with alternative gear and the financial resources being provided to Gulf long-line fishing by NFWF, as the old saying goes, if it ain't broke, don't fix it.

Thank you.

MR. BROOKS: Thanks very much. I think we had one other public commenter in the room. Yes, please? Again, start with your name.

MR. LEAPE: Thank you, Gerry Leape and on behalf of the Pew Charitable Trusts, I'll make my remarks brief.

First, I want to support earlier interventions by Panel Member, Shana Miller and

Jason Schratwieser and the comments just made by Lee Crockett.

Pew believes that form follows function and we believe that this scoping paper is premature and that the Amendment 7's three-year review should be done first, the results of which can inform any changes that may need to be made.

However, if you do go forward with this, I wanted to just have a few brief comments. One is we believe Lee just was talking that the Gulf of Mexico GRA has been successful.

In fact, more successful than anticipated. The weak hooks have successfully reduced bluefin tuna by catch.

But if shortened, it should be January to June based on bluefin tuna presence in the Gulf of Mexico.

With my ICCAT hat on, reopening the Gulf is particularly concerning since it's the major-known spawning area of Western bluefin tuna and would be inconsistent with the efforts of U.S. and ICCAT to prevent targeting fishing from resuming, which they have been working on for more than two decades, despite consistent efforts in recent years by Mexico to the contrary.

As we believe is true with the Mid-Atlantic closure, if anything, we should consider expanding the Gulf of Mexico GRA in time and space to reflect the current broader distribution of bluefin spawning in the Northern Gulf of Mexico.

Yes, the western bluefin tuna quota went up this year at ICCAT but the projections all clearly point when it's addressed again in 2021 that it could decline.

And lower quotas could be the case in the very near future. So, it seems quite risky to relax these controls now.

And finally, we would agree that the IBQ gives accountability but NMFS has already acted twice to weaken the provision since they went into force in January of 2015 from our perspective.

So, we believe we need gear-restricted areas too.

Thanks very much.

MR. BROOKS: Thanks, and I apologize for the dismantling as we're talking.

Apparently it's real that we have to be out of this room, but it's also really awkward so my apologies to public speakers.

I actually mean that genuinely. Are there any other public speakers here? Yes, Glenn?

MR. HOPKINS: I will be very brief. I don't have a dog in this fight but I have lots of friends and neighbors that do. It's the concern for the January quota for off of North Carolina for bluefin tuna.

And for years, even while I was on the

panel, I guess we've been fighting for 20 years to get more quota for North Carolina.

The powers that be back then, you know, the big players in the North, you know, there's not much pie but as soon as we start getting pie, then the first place it'll go is North Carolina.

And so now I'm just asking for those guys that are reasonable, say, just start off with 100 tons for the year for that period, only allow one fish a day, and whatever quota's left, let it carry on to the rest of the General category.

It's a really slow time in our area and it really is a boost to the economy.

January, February, at a beach town, you can imagine but it gets everybody jacked up and gets everybody going.

So, I appreciate your careful consideration on that, Brad, and thank you.

MR. BROOKS: Thank you very much. Is there anyone else who hasn't spoken yet that wants to speak from the members of the public who is not a Panel Member?

Charley, you wanted to finish up here? And again, our apologies that there's so much distraction here.

If there's any way to minimize that, HMS Staff, we'd really appreciate it.

MR. BLANKINSHIP: Yes, can y'all take a seat for just a second?

MR. BROOKS: And Charley, I will ask you to be as succinct as possible.

As you can tell, we really do need to be out of here.

MR. PEREIRA: I have just a couple bullets left.

First of all, dating back to 1993, I did as best I could to estimate it and talk about it with Brad earlier.

But my estimation is since 1993, in an effort to prevent North Carolina from having additional quota, the United States has left over 5,000 tons of General category bluefin quota on the table unused.

And according to Brad's graph earlier, I'll just use his $6.50 a pound one, that's over $70 million left on the table that North Carolina more than likely could have brought into the U.S. economy, and especially our local economies down there.

Seventy million because as I was told in 1996, those are our fish, and I'll be damned if we're going to give you any. So, that's my main comment left over from that.

I thought it was interesting to see the data that shows PLL boats getting $4 a pound versus you were showing $6.50 a pound for the Gen. cat.

And I'm wondering just for their

benefit if maybe we could try to figure out why that is.

Is it because in North Carolina we're troll-catching most of these fish and we're swimming them headfirst for 20 minutes as we've been taught to get the lactic acid out of them and get their color back before we go ahead and kill them?

Is it a quality difference why they're only getting $4 a pound?

I think we should investigate that just for, again, the value of the stock that we're killing.

It would be best for our country to try to figure out how to maximize that return.

MR. BROOKS: Okay, thanks, I've got Staff in the corner here who absolutely need to get into this room so I'm going to thank everyone.

AP Members, if you have any comments on this last round, we'll take it up first thing in the morning.

Leave your tent cards here and AP Staff will pick them up, and Randy, you had to an announcement you wanted to make quickly?

All right, thanks everybody.

(Whereupon, the above-entitled matter went off the record at 5:40 p.m.)