

**PROCEEDINGS OF THE  
ATLANTIC STATES MARINE FISHERIES COMMISSION  
ATLANTIC MENHADEN MANAGEMENT BOARD**

**Radisson Hotel Old Town  
Alexandria, Virginia  
May 9, 2007**

Approved October 30, 2007

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## ATTENDANCE

### Board Members

Terry Stockwell, ME, proxy for Lapointe (AA)	Howard King, MD DNR (AA)
Pat White, ME (GA), Chair	Bruno Vasta, MD (GA)
John Nelson, NH, (AA)	Russell Dize, MD, proxy for Sen. Colburn (LA)
Rep. Dennis Abbott, NH (LA)	Jack Travelstead, VA, proxy for Bowman (AA)
G. Ritchie White, NH (GA)	Catherine Davenport, VA (GA)
David Pierce, MA, proxy for Diodati, (AA)	Niels Moore, VA, proxy for Sen. Chichester (LA)
William Adler, MA (GA)	Louis Daniel, NC (AA)
Vito Calomo, MA, proxy for Rep. Verga (LA)	Damon Tatem, NC (GA)
Everett Petronio, Jr., RI (GA)	Jimmy Johnson, NC, proxy for Rep. Wainwright (LA)
Mark Gibson, RI (AA)	John Frampton, SC (AA)
Mark Alexander, CT DEP, proxy for E. Smith, (AA)	S. Woodward, GA, proxy for S. Shipman (AA)
Pat Augustine, NY (GA)	J. Sanders, GA, proxy for J Duren, (GA)
Gordon Colvin, NY (AA)	April Price, FL (GA)
Brian Culhane, NY, proxy for Sen. Johnson (LA)	Steve Meyers, NMFS
Peter Himchak, NJ DFW, proxy for Chanda (AC)	Bob Ross, NMFS
Erling Berg, NJ (GA)	Bob Sadler, NMFS
Dick Herb, NJ, proxy for Asm. Fisher (LA)	Tom Meyer, NMFS
Roy Miller, DE, proxy for Emory (AA)	David Perkins, USFWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

### Ex-Officio Members

Alexei Sharov, MD DNR	William Windley, MSSA
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### Staff

Vince O'Shea	Braddock Spear
Robert Beal	Erika Robbins

### Guests

Jeff Tinsman, DE DFW	Ken Hinman, NCMC
Bernie Williams, USFWS	Chris Moore, NMFS
Wilson Laney, USFWS/SAFCO	Jessica Coakley, MAFMC
Jay Odell, The Nature Conservancy	Dave Simpson, CT DEP
Sean McKeon, NCFA	Phil Kline, Greenpeace
Shaun Gehan, Omega Protein	Charles Lynch, NOAA
Arnold Leo, Baymen's Assn.	Bill Goldsborough, CBF

The meeting of the Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Washington Ballroom of the Radisson Hotel Old Town, Alexandria, Virginia, on Wednesday, May 9, 2007, and was called to order at 11:30 o'clock, a.m., by Chairman Patten D. White.

### CALL TO ORDER

CHAIRMAN PATTEN D. WHITE: Okay, welcome to the Menhaden Board. I call the meeting to order.

### APPROVAL OF AGENDA

I would like a motion to approve the agenda or if there are any questions. Any objection? Bill Adler.

MR. WILLIAM A. ADLER: **So moved.**

### APPROVAL OF PROCEEDINGS

CHAIRMAN WHITE: Second, Everett Petronio. If there are no objections, we'll consider it approved. Also, approval of the proceedings of the January 30<sup>th</sup> meeting which were on the disk.

MR. ADLER: **So moved.**

### PUBLIC COMMENT

CHAIRMAN WHITE: Bill Adler and John Nelson. Thank you. For those in the audience that are new – there are no objections, Joe, I'm sorry. With no objections we move forward with approval. I'm new to this. Public comment is somewhat limited. We've got to be brief. There is a sign-up sheet down back somewhere, yes at the staff table, for anybody that has issues they want to speak on.

I don't think it's relevant to the public hearings because we haven't had any. But if people wish to speak briefly today they need to sign up on the sign-up sheet. Plan review team report, I turn it over to Brad Spear. Excuse me a second. There is, has just been handed out a letter from Jim Price and also a response by Bob Beal that I would urge people to read as part of the public comment. And if they have any questions, direct those to Brad. Thank you. Joe, did you get a copy of that letter?

### PLAN REVIEW TEAM REPORTS

MR. BRADDOCK J. SPEAR: Okay, thank you, Mr. Chairman. Menhaden compliance reports were due April 1<sup>st</sup>. There were a few that trickled in late and the plan review team had its call this past Thursday. The compliance report and the FMP review both combined into one report this time around and that was handed out at the beginning of the meeting.

I'll try and go through the highlights of the report. The individual state reports were also included on the briefing CD. And as I go through the report just refer to the tables and figures. Next slide. The 2006 fishery, the total coastwide harvest of menhaden was a little over 183,000 metric ton. I refer to Figure 1 to look at the historical landings.

The reduction harvest was a little over 157,000 metric tons coastwide. And that was up 7 percent from 2005 but down about 13 percent from the previous five-year average. And the coastwide bait harvest for 2006 was slightly over 26,000 metric ton. And this was down 31 percent from 2005, and about 28 percent from the previous five-year average.

Looking at the bait fishery, the largest decrease in bait landings from 2005 occurred in Virginia and Maryland. Then all states from New Jersey north to Maine reported an increase in landings from 2005, also PRFC and Florida reported an increase in bait landings. And just looking at the landings for the past couple of years it appears the bait fishery is expanding back into New England waters. If you look at Table 2 or Figure 2, you can see a little indication of that.

Looking at the reduction fishery there is one reduction factory on the Atlantic Coast, in Reedville, Virginia. Eleven vessels fished out of that factory in 2006. And the Beaufort Fisheries, which was the last factory that was opened, closed, has been closed since 2004.

Looking at the state compliance there is really one compliance requirement for the states and that's that they have a reporting system for landings. And all states were in compliance with that requirement. And Table 1 of the FMP review details states' reporting systems. South Carolina and Georgia requested de minimis status and the PRT recommends that they do qualify and that the board grant them de minimis status for 2007.

Two thousand six was the first year that the Addendum III harvest cap applied and that cap was

set in the addendum at 109,020 metric ton. The actual harvest for the reduction fishery in the Chesapeake Bay was about 65,000 metric ton, below that cap. And comparing that to years past, 2004-2005 was around 96,000 metric ton, 98,000 metric ton, so there was a decrease from years past. And applying the Addendum III underage provision to the harvest for 2006 the 2007 cap will be set at 122,740 metric ton.

There was research ongoing in 2006 that focused on the Addendum II research priorities. They were the four priorities that the tech committee recommended that were included by the board into Addendum II. In 2007, about a month and a half ago, the NOAA Chesapeake Bay office held a Fishery Symposium and it was a two-day symposium.

Day 2 focused on menhaden-related research. A lot of that focused on one of the four priority areas. And we expect there to be some sort of summary report and we'll pass that along to the board once it's available. The technical committee held a meeting the day after the symposium to talk about the research and talk about possible implications and any sort of preliminary results that have come out and also began discussions about how that might fit into the 2009 stock assessment.

One thing that wasn't necessarily specifically discussed that the plan review team felt that the board should be made aware of is this question of localized depletion in the Chesapeake Bay. I know the board is expecting answers kind of at the end of this research timeframe and also the management timeframe that's set out through 2010.

And the committee, at this meeting, anyway, because it was preliminary information that was being discussed, didn't kind of synthesize all the information and determine whether we're progressing or what sort of progress we're making to answering that localized depletion question.

So it's the PRT's recommendation to the board that they task the tech committee specifically to, you know, put all this information together and update the board at each meeting on progress towards answering this question. And that concludes my report.

CHAIRMAN WHITE: Thank you, Brad. Any questions from the members? Good report. Ritchie.

MR. G. RITCHIE WHITE: Do you need a motion to task the technical committee?

CHAIRMAN WHITE: No, as long as there is no objection. John Nelson.

MR. JOHN I. NELSON, JR.: Did you need a motion for granting de minimis Mr. Chairman? **So moved.**

CHAIRMAN WHITE: Second? Vito Calomo.

MR. VITO CALOMO: Yes, is it appropriate, Mr. Chairman, that I pass some information to the technical committee at this time?

CHAIRMAN WHITE: I would guess it would be more appropriate to give it to them directly through Brad and then if it's pertinent to what we're doing with – is this to do with the assessment or?

MR. CALOMO: Absolutely.

CHAIRMAN WHITE: Then I would give it to Brad to give to the technical committee.

MR. CALOMO: Do you want me to do that on the side or?

CHAIRMAN WHITE: Do it now.

MR. CALOMO: Thank you. That's what I'm asking, if it's appropriate.

CHAIRMAN WHITE: Thank you.

MR. CALOMO: Approximately three years ago with no scientific background that I have but I told this board and the technical committee that menhaden were moving to the northern and I also told this board that an abundance of zero year class of menhaden has shown up to the northern, from Maine all the way down towards Rhode Island.

And I'm also going to let you know and inform you that you may see a lack of fish in the Chesapeake Bay and that has nothing to do with localized depletion because the fish are now on a 20-year migration that they have done for the generations of fishing that I've done, are coming to the northern from the outside.

Last year was the first year that purse seine vessels from Virginia or Omega Protein fished in the ocean more than in the bay. Fish are going outside, contrary to beliefs that they travel along the shore. There are years that I found them on the outside and never entered the area of Cape Cod Bay in abundance that we have in past years.

So I just want you to understand that you may not find as many fish in the Chesapeake Bay but that has nothing to do with localized depletion. And there is records showing that the Omega Protein fisheries did catch fish on the ocean side more than they ever caught in the last say 20 years. Thank you.

CHAIRMAN WHITE: Thank you, Vito. And somebody else over here had their hand up? John.

MR. NELSON: I'm just glad that I'm here to see that Vito is right again.

MR. CALOMO: It's not being right, it's passing information that I've had for years and years and years. Even though I'm not recognized as a scientist, I should be recognized as a third-generation fisherman in this. And I'm very serious about this because I believe in the fishery, just like I believe in other fisheries that I testify for. Thank you.

CHAIRMAN WHITE: If there are no other questions I need a motion to accept the plan review team report. All right, there is a motion, then, moved to grant de minimis status to South Carolina and Georgia; motion made by John Nelson and seconded by Mr. Calomo. Any objections to that motion? Seeing none, the motion passes. Now I need a motion to accept the PRT report. Bill Adler.

MR. ADLER: **I will so move to accept the PRT report.**

CHAIRMAN WHITE: Second to the motion, Pat Augustine. Again, are there any objections to that motion? Seeing none, the motion passes. I have, I missed a public comment sign-up from Bill Goldsborough. Bill, would you like to do it now or at the end of the technical committee report? Okay, come forward.

MR. WILLIAM GOLDSBOROUGH: Thank you, Mr. Chairman, for the indulgence. Sorry I didn't get in earlier in the agenda. I didn't know about the new sign-up system. Just a brief comment and I'm happy to see that the PRT already in part addressed this and really all it is, is just trying to make sure that the board maintains high in its consciousness the ultimate objective of the five-year research program that we've embarked on to develop improved management mechanisms.

So, keeping the focus on management applications over the research is key. So the PRT, as just reported, did recommend that the technical committee focus on evaluating whether or not

localized depletion is happening in the Chesapeake. That's an example. Another that I think is ultimately probably more important is the need to refine our reference points for menhaden management, consistent with what research tells us about the interactions with other species and the environment.

So, I don't have a specific recommendation on that but I did want it on the record that we're continuing to look for management applications from this research program and that that's why we set out down this road. We put a cap on the fishery, the reduction fishery, in Chesapeake Bay to give us a little comfort level while we embarked on that program. But that's the ultimate objective, to improve our management of that fishery. Thank you, Mr. Chairman.

CHAIRMAN WHITE: Thank you very much for that, Bill. Jack, I'm sorry, did you have your hand up?

MR. JACK TRAVELSTEAD: Yes, I just wanted to go back briefly to the charge to the technical committee on the issue of localized depletion and just expand on that a little bit. You know, as you know, Virginia agreed to a cap on its fishery for a five-year period, believing that over that five-year period the appropriate research would be done to shed more light on that localized depletion issue.

And so, I would like to expand the charge of the technical committee to comment on whether or not the, all of the appropriate research has been funded that will be necessary to address the issue of localized depletion and in their best estimate where do they believe we will be at the end of the five-year period in knowing whether or not localized depletion is occurring or not.

In other words, I mean the soonest they can tell us that, hey five years from now we're not going to know a lot more than we know now or we're going to know everything we need to know, I just need to know where we're going to be in that continuum at the end of the five-year period.

CHAIRMAN WHITE: I'll ask Brad if he can answer that, please.

MR. SPEAR: Thanks, Jack, I'll take that back to the technical committee.

CHAIRMAN WHITE: Niels.

MR. NIELS MOORE: In light of Jack's thoughts

and recommendations I think it would also be useful for either the board, this board, or the technical committee to actually define localized depletion. I think at this point, speaking for myself and others that I've spoken with, I think there is a lot of confusion regarding what, exactly, localized depletion constitutes. And I think it would be helpful if either this board or the technical committee actually took a look at this and helped us to define what that is. Thank you.

CHAIRMAN WHITE: I would guess that this should be a recommendation coming out of the technical committee rather than get into that with this board. Does anybody disagree with that at this point? Then I would ask the technical committee if they could by the next meeting to have some comment on that if you could. Thank you. Any other comments relative to the plan review team? Vito.

MR. CALOMO: Thank you, Mr. Chairman. I seem to think or remember that is Omega Protein involved financially in helping us do this research? They're providing funding or vessels or anything?

CHAIRMAN WHITE: I think they're providing information but I'll let – Vince, do you want to address that?

EXECUTIVE DIRECTOR JOHN V. O'SHEA: Well, I'd suggest that question be directed to Virginia.

CHAIRMAN WHITE: Jack.

MR. TRAVELSTEAD: Omega did last year during the LIDAR study provide one of its vessels to the investigators for that work to be done. In fact, Alexei spent some, quite a bit of time, I guess, on one of the vessels, both in the bay and out in the ocean. I don't think – and this may come out of Alexei's report later but that's the extent of my knowledge at this point as to what has happened.

MR. CALOMO: Mr. Chairman.

CHAIRMAN WHITE: Alexei would like to add to that and then I'll get back to you, Vito.

MR. CALOMO: Okay.

MR. ALEXEI SHAROV: Just an update on this. We did do the LIDAR study last fall and the industry was very cooperative. But we did not interrupt their normal function, that is that they were fishing as they were doing this or, you know, at any other time to

achieve their own goal.

We were, you know, on the vessel for several days and above the fishing vessels in the airplane where we tried to be just a shadow so there was no, you know, specific task assigned or a deviation from the normal fishing process in the course of the study. So I'd say we've got all the help that we needed but, no additional expenses were incurred by the fleet, as we understand it.

CHAIRMAN WHITE: Thank you. Vito, you had a follow-up question.

MR. CALOMO: Yes, I did. I'm glad to hear they were cooperative because they said they would be cooperative and I remember that very clearly. But they also said that they would assist us in our research and I didn't know if that meant financial or just with platforms. And I think that is a question that should be answered by Omega Protein. Thank you.

CHAIRMAN WHITE: Shawn, you had a comment?

MR. SHAWN GEON: Yes, thank you, Mr. Chairman. Shawn Geon. I'm here representing Omega Protein. Yes, you know, the LIDAR study was, and the company's participation was part of the agreement, the memorandum of understanding that the company and the State of Virginia had entered into.

You know, the company participated in that project to the fullest extent asked. I don't recall that they – and Alexei can tell me if I'm wrong, that there was anything that was asked that they didn't do. I think the additional costs were probably minimal, although I assume that Alexei did eat when he was at sea. And I don't think they charged him for his meals, nor put him to work.

So, you know, to that extent that's been it. In fact there have been no other cooperative research projects and no one, to my knowledge, has approached the company to ask for any type of assistance. But I will point out that the company has put forward in the latest round of grants for the – Steve can tell me exactly what the program is but the Chesapeake Bay Program's most recent call for research projects put in a proposal, a cooperative research proposal asking for \$150,000 to adapt, install this technology that some of the folks here will be familiar with.

It was developed by what's called the Study Fleet up in New England. It's been adapted for long line gear



and trawl gear. It's an amazing monitoring tool, data collection tool. It has a lot of promise for very innovative management. And specific to this commission's and this board's, you know, efforts to apply a cap in the Chesapeake Bay, you know, it will tell you, it integrates with all the vessel systems, including the pump motor, any of the systems you want, GPS.

You'll know where they're fishing, when they're fishing. It can be adapted to figure out how much you're catching if you can figure out a pump rate for a very uniform sized fish which is not beyond the PAL and part of what the project incorporates, as well as collecting water temperature, salinity, depth, you know, precise area of catch. That data could be available to researchers.

So I would, as far as I know and, again, Steve probably has more information, but it at the menhaden research meeting in Maryland last month all I know is that the proposals have not yet been sent out for peer review. I understand the timeframe for approving these grants are in June at some point.

And it would probably be good if this board could go on record in fact supporting this cooperative research program that would provide both the management benefit, because you'd know where the catch was coming from, as well as information that could be utilized in ongoing menhaden research projects supported by the board. Thanks. If you have any questions.

CHAIRMAN WHITE: I actually would like to hold off on the questions for now because I think Alexei is going to cover a lot of what we're talking about now in his presentation and then we'll go to some – can you wait until after Alexei does his, Niels?

MR. MOORE: Sure, no problem.

CHAIRMAN WHITE: And then I'll go back to questions. Thank you. Go ahead, Alexei.

## **TECHNICAL COMMITTEE REPORT**

MR. SHAROV: All right, I'll walk you through the summary of the Atlantic Menhaden Technical Committee meeting. The committee met on April 12<sup>th</sup> of 2007 in Maryland. As you could see there, our agenda included the review of the 2006 menhaden fishery review of the results of the Chesapeake Bay NOAA Office Symposium, Fisheries Science Symposium.

And the one day of the symposium was totally devoted to menhaden-related research. We also discussed the cooperative research as well as preparation for the forthcoming peer reviewed menhaden stock assessment in 2009. Based on the data presented to us by Joe Smith from Beaufort Laboratory, the 2006 coastwide reduction landings were about 157,000 metric tons which was 7 percent up from the 2005.

The Chesapeake Bay reduction landings were relatively low. It's about 65,000 metric tons and the committee noted that they were the lowest since 1985. It was noted, also, that we, that the 2006 season was very atypical. While there was an absence of menhaden schools in the Chesapeake Bay, mostly, through May-June and September-October, or a low frequency of occurrence, the menhaden were quite abundant along the Atlantic Coast.

And they were rather abundant for a second year now in New England where the bait company has successfully fished for menhaden for a second summer in New England waters. Well, before that they used to go to the Northern or Central New Jersey. According to Addendum II in the year when we do not conduct a stock assessment we have to review the status of the stock and verify that none of the two so-called "triggers" were fired.

We've looked at the data and it was determined that the catch per unit of effort for the 2006 was above the 5<sup>th</sup> percentile for the data for the last 20 years so that doesn't trigger an out-of-order additional assessment of the status of the stock. The same with the second criterion or trigger, the percent of Age 2 and 4 fish in the harvest was within the two standard deviations for the last 20 years. So based on that no need for an additional review or for additional assessment for this year.

The technical committee members were able to attend the one-day of the fishery symposium that was devoted to menhaden research. The presentations were grouped into four sessions, each of them was supposed to address the research priorities identified by the technical committee and approved by the management board that include the estimation of absolute abundance, coastwide and in the Chesapeake Bay, removals by predators, movements between the Chesapeake Bay and Atlantic Ocean, and menhaden recruitment.

As for the estimate of the absolute abundance in Chesapeake Bay, there are currently only two projects that potentially can help in answering this

question. The one is the LIDAR study. The results of the first year of the LIDAR study were reported and it was demonstrated that LIDAR is able to detect menhaden schooled in the Chesapeake Bay and Atlantic Ocean.

However, there are limits to the ability of detecting those schools and those limits are set by the depth of the penetration of the light that is being used as well as the contrast between the schools and the environment, that is the waters of the bay. So there are certain limitations to what the method could do yet it seems that it will at least be able to provide an if not absolute then the minimum absolute estimate of the abundance or relative index of abundance.

This study will continue into the second year and this summer surveys will be conducted over the Chesapeake Bay. The other alternative approach is the modeling exercise, the stock assessment that will be specifically for the Chesapeake Bay that will be conducted by researchers from Virginia's Institute of Marine Science and the University of British Columbia.

This is a spatially-explicit model that would explore the spatial distribution of menhaden within the bay and on the coast using existing data. And, therefore, the limitations of the existing data would certainly be the limitations for the ability for that model to provide us with the results. Unfortunately, this particular study is only at the early stages, that we were presented only with a conceptual approach and no results yet. However, we were told that next year we'll see a full model and the results of the modeling exercise.

The second research priority is the removals by the predators. We've heard three presentations on the studies that have looked at the primarily striped bass removals of menhaden on the Atlantic Coast and in the Chesapeake Bay, although one study was not limited to just striped bass but actually covered most of the predators.

The results of those studies were quite variable and different. While one study indicated relatively low contribution of menhaden to the striped bass diet in the Chesapeake Bay, while the other one showed up a very high percentage, to 80 to 90 percent of menhaden found in the striped bass stomachs, primarily large striped bass.

The TC had a discussion of this and the TC noted that such differences should be investigated but we understand what leads to this is that the sampling

methods are different, the timing sometimes is different. And it's going to take some time for folks in the area to develop the approach that would account for those differences and possibly some standardized approach would have to be developed to answer the question of the potential effect of the predators on menhaden.

As for the movements between the Chesapeake Bay and the Atlantic Ocean, no active research is going on in this particular area except for the spatially-explicit model that I mentioned. That model would probably help us to understand the possible limits of the migration rates or immigration, emigration between the bay and the coast.

However, that would be based on only on the past data since no, there are no ongoing, you know, field studies that would help bring new information into this area. And also there were several studies that have looked at the larval ingress in the Chesapeake Bay. The Maryland Department of Natural Resources, Atlantic States Marine Fisheries Commission, and NOAA Office have funded the study that is looking at the seasonal dynamics of larval ingress into the Chesapeake Bay as well as the other studies that are looking at the rates of those larvae.

Although this will potentially be useful for us to understand the reasons of variation in the recruitment and specifically the issue of the low, constant low recruitment in the Chesapeake Bay in the last 10 or 15 years, but that would be a long-term study that several years of observations would be required to see the patterns in the recruitment of larvae in the bay. And these studies are in the first or second year so they have only preliminary results.

We were also asked to discuss the possible cooperative research. The industry has reaffirmed its interest in cooperative research and we spent quite a lot of time trying to understand what could be done in working together.

The committee has noted that we already have, you know, quite a lot of cooperation between the industry and scientists well, specifically, of course in the area of quantifying the harvest, that is that the vessel daily reports are being submitted to the Beaufort Laboratory. The port samplers have a full access and collect the biological information and fish size distribution and age structure.

Beyond this, the industry has participated in the LIDAR study but yet the industry representatives

were saying that they were not satisfied with that. They were looking for more studies and more researchers coming to them. But they were interested in doing these studies where the industry participates in the planning, you know, starting with the very first stage, the planning stage of such study. And certainly they were interested in the research that would be also important to the industry itself.

While that's understandable, the committee members felt that there were only limited number of the issues in which the industry could help scientists, that is that without interrupting their normal activity, that the information that you could collect from vessels and pilots or spotter airplanes is very important but that answers two very specific questions and many others could not be answered with the help of the industry, you know. For example, a chemical analysis of the outlets of menhaden larvae, obviously, would, you know, have to be done with the, you know, through the other means.

But, yet, the committee and the industry representatives identified the possible important area where they could interact and that is the exchange of information between the technical committee members and the spotter pilots that Omega Protein as well as Art Bait from Massachusetts are using as well as the experience of the captains of the fishing vessels.

And there is a recommendation from the technical committee to form a subgroup that would meet with the spotter pilots and captains and talk about their experience and thinking of possible ways of developing the airborne survey, coastline survey that it would allow to monitor the dynamics in the population abundance. And the industry was very supportive of the idea of such a meeting so that's, we present this recommendation to the board.

There was also the recommendation made by the sociologists and ecologists, a new member of the technical committee, to take a look at the socio-economical analysis and the history of the industry that, in his view, that would be very useful and hasn't been done for quite a while.

And, finally, the committee had discussed the approaches for the future stock assessment and the modeling approaches. And at the moment we are trying to identify possible models that could be used and data improvements that we need to have. And we're looking at the improvement of the indices of abundance.

As you know, we do not have any reliable index of the adult fish for the coastwide stock. Currently we're using the Potomac River Fisheries Commission Pound Net Index for that purpose. We might need to improve our knowledge on the maturity and fecundity. And we will be looking at the current model which is statistical catch at age model, the spatially-explicit model that is currently being developed, the one that I talked about, the multi-species VPA approach that the model that has been developed by the commission, and the, we'll still discuss the biomass dynamics model. We have about two years but that time will pass very fast and so we plan on working on these models and reviewing them so starting now.

And as a final business for the technical committee we elected a vice chair and Dr. Robert Latour from Virginia's Institute of Marine Science was elected as the vice chair. Thank you very much. If you have any questions, if you have any specific interests in the results of the LIDAR study and that will win over the desire for lunch, I'd be happy to walk you through the short PowerPoint presentation as well.

CHAIRMAN WHITE: Thank you, Alexei. And, as promised, Niels.

MR. MOORE: Thank you, Mr. Chairman. I first want to recognize that the TC report has some very exciting information, particularly from the perspective of industry. It would appear that the 2005 year class, as stated in the TC, is very strong, perhaps the strongest since 1990-1991. And this is confirmed by reports from Omega captains which we heard in – excuse me.

In 2005 during the fall Omega's captains were reporting that they were finding acres and acres of peanuts and that based on their experience – and some of these captains have been around for 15-20-25 years – they were indicating to Omega that, hey, we've got a real strong surge here in recruitment and we believe that – when I say “we” the captains believe that – we're going to have some very strong signs of larger fish coming down the line. And I believe that this TC report confirms that.

And I know that Omega is expecting and preparing for a situation where there are a large number of Age 2 fish. So I think that's exciting news. A second, in terms of the LIDAR Project I can tell you that Omega supports this wholly. And Alexei, we want this project to work if for no other reason if you're able to develop along with your fellow scientists a LIDAR

that indeed works and is commercially applicable to Omega's operations I think that that would be a real plus that came out of this. And we hope that it does work.

I would like to recognize that, as Alexei pointed out that, the LIDAR at this point may have some issues in regards to its limited penetration depth, excuse me, and the contrast between the schools and the environment, as he did point out.

Of interest, though – and, Alexei, please correct me if I'm wrong and I'm trouncing on your science and I know this is all very preliminary but I believe that the first go-around in terms of putting up a number based on the transects that were performed with the plane carrying the LIDAR, I believe in one transect, excuse me, in one area that was surveyed by the LIDAR they came up with an estimate of some 600 million fish in a relatively small area of the northern bay. So I think that's very exciting, particularly in relation to the number of fish that Omega harvests during the year which is somewhere around the 400-450 million range.

Lastly, the TC report, as it points out the importance of aerial surveys I'd like to point out two things. The TC report states that aerial surveys provide the most realistic opportunity to obtain a coastwide abundance index, particularly of adults. It also says that aerial surveys for menhaden are probably the most effective, excuse me, cost effective method to measure abundance.

And in light of these thoughts of the TC members, as Alexei pointed out, the TC recommended that a subcommittee be formed to work with industry to work on a cooperative project to take the surveys, to analyze the surveys and set up a survey system with Omega Protein. And at this juncture I'm announcing that Omega would like to host this subcommittee meeting.

And, as Vito asked earlier about what sort of monetary or otherwise contributions that Omega is going to make, Omega would like to host the subcommittee meeting in Reedville, Virginia, hopefully in the beginning of June, and invite all the subcommittee members who would like to participate and as well as board members. So we would love to have board members come down.

We, when I say "we", Omega intends to offer a tour of the new refinery as well as the plant itself and hopefully if things work out and the weather is nice a trip out on some of the harvesting vessels which is a

very exciting thing to do. So, in sum, you know, industry is supportive of LIDAR. We hope it works.

We think that the TC report is very exciting and points to a strong resurgence here of menhaden which is also confirmed, I believe, by the expansion of the range which we're seeing now all the way up to Maine. And Omega wants to work cooperatively with the TC and with this board to set up any surveys that might be helpful, that could be used in conjunction with LIDAR, if LIDAR is proved feasible. And we, Omega, looks forward to working in the future with the TC and this board to that effect. Thank you.

CHAIRMAN WHITE: Thank you very much, Niels.

MR. HOWARD J. KING III: Thank you, Mr. Chairman. This might be a question for Brad but it seems to me that at a prior board meeting there was an intent or a commitment to have an economist on the technical committee. Is there such a person?

CHAIRMAN WHITE: Yes. And that was another agenda item under other business there is a **John Maiolo that has been nominated by the Socio-Economic Committee to be appointed. And I would just ask if there is no objection then we will move forward with that.** If there are objections, I'd like comments. Go ahead, Howard.

MR. KING: This is no objection but I would like to know what the earliest opportunity would be to task that person on the technical committee with work.

CHAIRMAN WHITE: I'll give that one to you, Brad, or who?

MR. SPEAR: It's up to the board's discretion to make that task. There is no minimum grace period for him to be on the committee. There is one other economist on the committee as well.

MR. KING: All right, and a final question perhaps Jack in Virginia could answer, there was a proposed or is a proposed socio-economic study that was currently trying to gain full funding, I think, and could we hear about that?

MR. TRAVELSTEAD: Just very briefly, the final decisions on funding of that have not been made but should be made by the end of this month.

CHAIRMAN WHITE: Thank you. I also would ask the board if they wish because of the interest of time if they would like to see his presentation, Alexei's

presentation on the LIDAR study that we could schedule that in for the next meeting. What's the board's desire on that? Okay, without any objection, then we will schedule it. Yes.

MR. PETER HIMCHAK: Yes, Mr. Chairman, I have a question unrelated to Alexei's presentation.

CHAIRMAN WHITE: Okay, but I just, to this point if nobody has any objection then, Alexei, if you could then we'll set up a presentation for you to do the LIDAR PowerPoint in August. Okay, now.

MR. HIMCHAK: Okay, sorry, Mr. Chairman. I just had a question for industry and I know that on the adoption of Addendum III in August of 2006 as far as monitoring the cap we were, the board was told that the vessels would all be outfitted with the appropriate electronic reporting devices for 2007 to document the area from where the landings occur.

And previously a gentleman had, they said they had a project proposal offered to accomplish this objective. And my question is, is the monitoring of the cap contingent upon the approval of their project proposal? And what would be the availability of that money to conduct the appropriate monitoring in 2007?

CHAIRMAN WHITE: Niels, do you want to address that with respect to that, your previous?

MR. MOORE: Thank you, Mr. Chairman. I, frankly, I'm unsure as to what the status is of that. I know that industry is ready, willing and able, to the extent that it's practicable, to outfit its vessels with any sort of VTS or other, you know, necessary things. But I don't know where that stands right now. Thank you.

CHAIRMAN WHITE: We'll try and look into that and someone will try and get back to you on that. Any other questions of Alexei? I have one other matter that needs to be addressed. Florida has shown desires to be listed as de minimis. I need a motion for that.

MR. CALOMO: **So moved.**

### **OTHER BUSINESS**

CHAIRMAN WHITE: Vito Calomo and Robert. Are there any objections to that motion? Seeing none, the motion passes. Does anybody else have anything else under other business? And I have a

motion to adjourn. Howard, excuse me.

MR. KING: Yes, thank you, Mr. Chair, in consideration of what Brad said, I would like to request and move, if necessary, that the technical committee assemble or compile or review the existing state of knowledge on the economics of the menhaden resource and add and also include what the Virginia study would add to that state of knowledge. And if they could report back to us at the August meeting, that would be appreciated. Do we need a motion on that?

CHAIRMAN WHITE: As long as there is no objection, Howard, I think he'll take that as advice.

MR. KING: Thank you.

### **ADJOURN**

CHAIRMAN WHITE: It will be presented at the next meeting where there is a menhaden meeting. Any other comments? All right, without any, the meeting is adjourned.

(Whereupon, the Atlantic Menhaden Management Board meeting adjourned on Wednesday, May 9, 2007, at 12:25 o'clock, p.m.)

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