The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Room of the Quality Hotel and Conference Center, Arlington, Virginia, April 25, 2001, and was called to order at 1:00 o'clock p.m. by Chairman Gordon Colvin.

CHAIRMAN GORDON C. COLVIN: I'd like to call to order the meeting of the American Lobster Management Board. I'm going to ask Heather do a roll call.

(Whereupon, the roll call was taken by Ms. Heather Stirratt.)

MS. HEATHER M. STIRRATT: Mr. Chairman, you have a quorum.

CHAIRMAN COLVIN: Thank you, Heather. There is a revised version of the agenda that has been distributed by staff. Are there any additions or corrections to the agenda? Any objection? Without objection, we'll proceed with the agenda as it has been distributed.

Minutes have been distributed of the board's November and January minutes. Let's take the November minutes first. Is there a motion to approve the November minutes?

MR. WILLIAM A. ADLER: So moved.

MR. PATTEN D. WHITE: Second.

CHAIRMAN COLVIN: Moved by Pat White and seconded by Bill Adler. Is there objection to the approval of the minutes? Without objection, so ordered.

The next agenda item is public comment. At this time, we would entertain public comment on any issue of significance to the Lobster Board, recognizing that opportunity for public comment will be accorded during individual agenda items.

Seeing none, we'll proceed to Item 5, Update on Status of State Compliance. The initial item is the status of Rhode Island compliance. Heather.

MS. STIRRATT: As a follow up to our February meeting, staff responded as the board had requested to both Representative Eileen Naughton as well as Mark Gibson. Copies of these letters have been distributed to you in your briefing materials, both on the CD-rom as well as in the packet that can be located up at the front table.

With respect to Rhode Island's compliance status, the National Marine Fisheries Service published a determination of non-compliance and a declaration of a moratorium in the Federal Register on March 6 of this year.

In response to that, the state of Rhode Island recently implemented the necessary regulations for the 100/500 rule on March 29 of this year.
Upon receiving clarification from the state of Rhode Island, staff confirmed that these regulations are permanent and were effective upon adoption. The ASMFC has since this time notified the Secretary's of Commerce and the Interior and has proceeded with a formal request for withdrawal of non-compliance determination.

These letters were sent to the Secretary's on April 6. The National Marine Fisheries Service just published a cancellation of federal moratorium on Friday, April 20. I was not able to get that information out to you as board members.

I do have a copy up front if you'd like to review it; and in addition to that, the National Marine Fisheries Service also recently sent a letter to Governor Almond and I have a copy of that letter as well. That letter went on April 23rd. I do apologize for not being able to get those out to you in advance.

If you have any questions, I would be happy to answer those or the state of Rhode Island is certainly here as well.

CHAIRMAN COLVIN: Is there any discussion? Mark or Gil, did you want to say anything at this point, or Harry? Okay, if there's no further discussion, we'll proceed to the update on PRT review of state reports.

MS. STIRRATT: I'm unable to provide you with a PRT report at this time. The PRT, we tried a number of different dates. As you all are aware, there are a number of different lobster subcommittees, advisory panel, you name it, that met within the past two months or so, and it was just impossible to find a date that would work for all of the participants on the PRT.

So, what we have planned is a conference call, a substantial conference call which will occur on May 1st to go over the state reports which were submitted on March 1st of this year. It is the intention of staff to have before this body in July a formal report on the status of state compliance, as well as an FMP review at that time.

CHAIRMAN COLVIN: Any questions? Thank you. The next item is the technical committee report and there will be a series of reports on a variety of issues that will be presented by Carl, by Larry Jacobson, and others. So, let me first call on Carl to present an overview and get us started.

MR. CARL WILSON: Okay. Basically the technical committee has met once since our last board meeting. This was our second meeting that we focused on alternative reference points, alternative or alternative reference points.

The first meeting we got into the nitty gritty details of what reference points are and what are different reference points used in other crustacean fisheries or other fisheries federally managed and state managed.

In our second, most recent meeting, we collapsed into rather than going into the minutia, why don't we back up a little bit and just talk about general areas. Larry Jacobson is here today from Woods Hole to discuss some of the things that we've talked about and some questions that we've got to the board about reference points and where we're going from right now.

Before you stand up, Larry, I guess, Heather, should we talk about the other subcommittees first before Larry goes or -- okay, I just wanted to mention briefly the effort subcommittee.

Okay, just to touch briefly on two other subcommittees of the technical committee, the effort subcommittee has not formally met as far as a conference call or met in person.

Bob Glenn from Massachusetts DMF has been doing some work on compiling numbers of traps or numbers of tags issued in each state and potential latent effort that is available, and he has been working on a spreadsheet that I don't think is quite ready to be distributed to the board right
now, but it's the same story that there is a lot of potential effort out there that is not being realized right now.

As far as the socioeconomic subcommittee, we did have our first conference call. And, Heather, please speak up if you want to anything to this, but basically it was just kind of get to know the different members of the subcommittee. There was some definite concern by some of the members as far as the involvement of socioeconomics in the process and basically going through the technical committee up to the board as far as just having an input on socio and economic issues.

I think that was just the basic call. I don't know, Heather, if you've got anything specific that you know of.

MS. STIRRATT: The only thing that I have to offer on this issue is that the socio and economic subcommittee will be focusing primarily on commenting on proposed management actions as this board has at numerous times requested.

That information, as you know, right now we're in the middle of Amendment 4. They will be taking that on and trying to prepare something for the board in terms of conservation equivalencies and how that may or may not provide a socio and economic benefit and/or impact.

That information will likely be provided to you in either a qualitative and/or quantitative, if it's possible, form in July. In addition to that, they will also be trying to develop a mirror document to what the technical committee produced last August. That was a management measures implications paper.

They will be doing that to get them started in the process of looking at what are the types of socio and economic considerations and/or impacts and/or benefits that would result from any management action that may be chosen by this board in the future. They will try to do that and get that ready for you in a short time frame. So, that's all.


MR. GIL POPE: Thank you, Gordon. This socioeconomic study committee, is this like a pilot study for the Lobster Board or is it going to be branched out into the other boards as well or into some of the other fisheries?

MS. STIRRATT: Gil, the way that this committee was adopted, you may recall that last June there was a revision to the lobster -- or rather we established a new lobster operating procedures.

At that time, it was approved or it was determined by this body that if the technical committee sees that there are certain areas that we need input on, they can develop subcommittees.

The socio and economic subcommittee that I am reporting to you on right now is specific to lobsters; and if other fisheries management groups decide that they need that type of input, they could probably get it from the exiting assignments to the technical committee. There is one social scientist and one economist that is assigned to every technical committee for the other species.

CHAIRMAN COLVIN: Are there any other questions on the effort reduction or socio-economic subcommittee status? Seeing none, then Carl.

MR. WILSON: Yes, I just want to introduce Larry for giving us a talk and basically discussing the issue paper on overfishing definitions and alternative reference points, and take it away, Larry.

CHAIRMAN COLVIN: Larry, just before you begin, I want to highlight to the board, so that they listen carefully, that if you'll notice, this is indicated on your agenda as an action item.

The technical committee is asking for some
direction from the board on some of the issues that will be presented to you, so please recognize that at the conclusion of Larry's presentation and our questions of him, we will need to take that up as prospective action material. Thank you. Sorry, Larry.

MR. LARRY JACOBSON: No problem, that was very helpful. I'm glad to be here. My name is Larry Jacobson. I work for the National Marine Fisheries Service in Woods Hole. I've worked for the Service for about 12 years, only about the last year and a half or two years in Woods Hole.

Before that, I worked at the Southwest Fishery Science Center in Lajolla. I've got some experience, principally with stock assessment, harvest policy analysis, council work. I've done a lot of work for the Pacific Fishery Management Council. So, it's the first time I've ever been to Washington, D.C. in the 12 years that I've worked for the Service. So, well met.

I understand that you folks asked the lobster technical committee to look at and consider overfishing definitions for lobster. I'm not a member of the technical committee and I don't speak for them, but I am a sort of occasional helper of the technical committee.

For example, I helped with the last stock assessment and Carl asked me to help with the harvest policy and overfishing definition part of it, and I'm happy to do that.

So, I'm a member of the lobster modeling development subcommittee. There's about four of us. Mark Gibson is our leader in the harvest policy and overfishing definition endeavor. I think Vic Crecco is in there with us, Young Chen, someone I've just been able to form a friendship with up at the University of Maine, and myself.

There's only four of us. So, we're ready to charge ahead, but we need some advice from you before we can undertake any kind of policy recommendations and, really, the things -- this may go on for as long as two hours. I hope not. I'll try to keep it shorter than that.

If it's too long or too much detail, just let me know. All right, the other thing is that I'm looking for a discussion. I'm not looking to give a lecture for two hours. So, you know, throw an eraser or whatever it takes. Just let me know if I'm spending too much time some place or you'd like to talk about something else.

I'm going to do about four or five things. I'm going to give you some background information about overfishing definitions from a technical point of view, harvest policies. I'm going to give you a little bit of advice. It's going to be based on technical aspects of overfishing problems.

It's not going to be policy level advice. My interest is primarily in technical aspects and I'll try to hold the line there. I'm going to present this short paper by the technical committee, this issue paper on overfishing definitions.

I'm going to ask you some policy questions that the technical committee and the modeling subcommittee need to have answers to before we move forward, and I'm also going to go through draft terms of reference that were prepared by the technical committee as straumen for your viewing pleasure, or more to the point, for you to change.

It's important -- the thing that I need to have when I leave here today is I need to have answers or I need to have you set up to answer a set of policy questions, and the policy questions are listed in the back of the paper, and I need to have you ready to either give me terms of reference for the actual work to be undertaken or ready to go away and work on them and get back to us.

Okay, so that's really the product that we need. I understand that you guys have had a lot of presentations lately about overfishing definitions, harvest policies, et cetera, so this may be repetitious. I'm going to go through it very quickly.
A lot of people are confused, in my experience, with what overfishing definitions and reference points in general are. They're really nothing more than a bench post or a guidepost, a benchmark or a guidepost, and they're used by scientists in describing the condition of a stock and recommending management options.

They're used by managers in making decisions and in describing their goals, and they're sometimes used by policy makers in writing policies and laws, for example, the Sustainable Fisheries Act, but they're really common sensical.

Okay, what else? Well, they're usually, not always, but usually a fishing mortality rate or a biomass level that's related somehow to a common management goal, and they're usually calculated in some standard way. They are really, in essence, a sort of labor-saving device, a communication device, and it's important usually that there be some sort of standard method of calculation or some sort of understood logic.

Now, they're often treated as absolute, but, of course, we know that nothing is absolute in life and reference points are really just statistics, and they carry with them a wide range of uncertainties.

You hope, when you work with reference points, that you have a reference point that's sort of ballpark robust in the right kind of an area. Now, when are they useful?

I think they're useful when they help managers move toward their goals. A big thing with me, and a big thing in the technical analysis of reference point options and harvest policy options is knowing what the managers want, because there's really no other way to understand whether or not or to predict whether or not they'll work for you.

So, I'm going to talk to you a lot about that. I think they're useful when they ease the work in making decisions, and I think they're useful when they facilitate communication. I think they're useful when they are measurable and objective.

So, let's have the next slide and let's talk about measurable and objective. What do I mean? I mean, ideally, a good reference point is clear. It's pre-agreed and it's easy to compare to some sort of standard type of measurement.

So, we're interested in gaging the status of a stock or a fishery and we'd like to be able to do it quickly and readily based on a clear standard, a clear reference point, and, ideally, some sort of absolutely noncontroversial measure.

So, if we can get it, we want measurable and objective. Now, here's an example of a measurable and objective overfishing definition. I'm not saying this is a good one. I'm just saying that this is measurable and objective.

You could say that overfishing occurs when the catch is larger than a hundred. As long as the catch is accurately measured, that sucker is measurable and it's objective. I'm not saying it's necessarily good, but it has at least one good property.

Here's one that's not measurable and is subjective. You could say that, well, overfishing for guppies in Sumatra occurs when a majority of experts and managers are convinced that a major decline in abundance is likely in the near term. Now, that is a subjective and not easily measurable sort of overfishing definition. From a technical point of view -- and maybe I'm broaching a little bit onto the policy here, so forgive me -- that is less desirable than a measurement that's objective and measurable because it's harder to use, it's harder to implement, it's harder to determine whether or not the reference point has been met, et cetera, et cetera.

Subjective and hard to measure means that it's hard to evaluate the condition of a stock in a controversial situation. It is, at least in some practical sense, if not a technical sense, a good
idea to agree on something beforehand that you can use when the going gets tough, when you know what hits the fan.

That may be policy. I apologize if it is. The other thing is from a technical point of view, you can count on the reference point being invoked at the right time or the overfishing definition being invoked at the right time if it's measurable, objective, and clear. All right, here's another concept that's important and I'm sure you guys have seen -- any questions? Anybody want to interrupt me? Is this too much detail?

CHAIRMAN COLVIN: Everybody okay? Good.

MR. JACOBSON: This concept of target versus threshold reference points -- and this is important for lobster because as the technical committee mentions in their overview paper, the current overfishing definition is something called F-10 percent and there seems to be some confusion about whether it is a target or some sort of a threshold and people generally recommend, experts generally recommend now that you distinguish between targets and thresholds.

But, a target is a guidepost for something that managers want to achieve. It's like a speed limit sign and it is a speed limit sign that is set to achieve a fast, safe transport, achieving the right balance of speed and risk.

Now, a threshold is for what managers want to avoid. It's like the yellow line on a highway. You can cross it. You may cross it deliberately, but be careful. They should trigger attention and concern.

So, a target and a threshold, they're two different beasts and it's important -- I'm going to argue and I'm going to suggest to you to distinguish between them if you can or to at least consider distinguishing between them.

Finally, we've got something called limits and these are special thresholds. I mean, a limit is like the wrong way sign on an on ramp. You find yourself going up an on ramp and it says wrong way, that should trigger a little more than just attention and concern. You know, it should trigger drastic action.

So, you'll see people talking about targets, thresholds, limits. I think limits are probably less important than thresholds. They're just a special sort of super threshold. Perhaps targets are the most important thing.

Now, I told you that reference points in fisheries are generally, but not always, either fishing mortality rates or some sort of biomass level, abundance level, or an index of abundance. Let's talk about the fishing mortality reference points first.

Now, there's a lot of these. They have a long history for finfish and they're basically based on three families of models, models that are potentially applicable to lobster, surplus production models, spawner recruit models, yield per recruit models. The models aren't important.

Here's some examples of targets that serve managers who have MSY goals. I've got a few of them listed up there. There's FMSY. That's a fishing mortality rate that sort of on average gives you the highest level of fishing catch that you possibly could have.

And there are proxies for FMSY, like FMAX, F-0.1, F-35 percent. You guys have seen these. So, I'm reinforcing the notion that the targets and the goals somehow work together.

Here are some examples of target fishing mortality rates, target reference points for status quo management goals. There's a lot of managers in the world that have status quo goals. They want to keep things where they are and not let them get any better or worse.

We see things like F rep, F status quo, F median.
You'll see these as you work your way through the technical literature. Here are some examples of threshold and limit reference points, and I've got them down there and they've got these real excitable names like F crash, F low, F 10 percent.

F 10 percent in finfish is generally viewed as a threshold and sometimes as a limit reference point. Now, fishing mortality reference points -- and I want to point out that finfish and lobsters may be different beasts.

And F 10 percent may be a limit reference point for a fish or a threshold and it may not be for lobster. Now, these F reference points are used more often than biomass reference points because F's are something that managers can control.

Fishing mortality rates are something that managers can, at least in principle, control. It's harder to control biomass because you have to work with Mother Nature. More than that, you have to work through Mother Nature to affect an increase in a stock or something.

Managers, in principle, have more control over F's. Problems in stock with low biomass usually happen either because of an adverse environment or high fishing mortality rates or both. Fishing mortality rates are really the manager's first tool, in most cases.

Biomass reference points. There's fewer standard choices for biomass reference points. They're less common. They're used more and more these days as thresholds. The Sustainable Fisheries Act, the legislation that controls the way federal stocks are managed, are making heavy use of biomass reference points now.

They're usually just some biomass or number of fish, usually used as a threshold, but you'll see targets as well. Relative measures of abundance and biomass are sometimes used. Here's some examples of BMSY, B status quo.

The BMSY is a biomass target for a manager who is aiming for a high level of average catch over the long term. Status quo is you can imagine what. There is a threshold there, BMSY over 2. That's used for a lot of federal stocks.

The stock falls below half the biomass that would give you BMSY, it's supposed to trigger some sort of concern or attention. You'll see BMSY over 4 used as a limit for a lot of federally managed stocks, but you see some ad hoc sorts of things, too.

For example, for Pacific sardine on the west coast, they are considered overfished in a biomass sense when their biomass falls below 50,000 tons. There's a lot of flexibility here. I mean, there are other things to do besides F and biomass.

I just don't have the time to talk to you about all the special variants. Has anybody got any questions? Come on, please. Everybody's taking notes, okay. Here's another concept, the concept of overfishing versus overfished, and this is one of the most unfortunate semantic problems in the world.

In the federal arena of Sustainable Fisheries Act policy -- and generally the technical advice you see from most experts distinguishes between overfishing and overfished stock conditions, and you'll see people using the words interchangeably and it's very confusing to know exactly what's going on.

Now, the concepts are important, but the terminology, especially in the SFA is very confusing. When I say overfishing, I mean fishing mortality rates, F's too high, so overfishing is occurring. Overfishing is not occurring.

That describes the situation of whether or not fishing mortality rates are perhaps much higher than managers' targets. Generally these address overfishing. The issue of overfishing as a rate is addressed with reference points that are fishing mortality rates or some measure of exploitation.

So, overfished usually means low stock biomass.
It doesn't mean overfishing in the past tense. I mean if it did and we were overfishing last year and we solved the problem, would we be overfished now? No, no, it's nothing like that.

When we say a stock is overfished, it means that the stock is at a low biomass level. Now, the stock may be at a low biomass level because the environment went to hell or there was too much fishing or some combination of the two or whatever, and, unfortunately, the word seems to point inevitably towards fishing even though the environment could be the cause and that's unfortunate.

But overfished means low stock biomass relative to the management goal relative to thresholds and it may not be due to fishing. It may be due to the environment or it may be due to a couple of factors.

Now, overfished, the concept of overfished in harvest policy is addressed with biomass-based reference points as a rule. The stock is overfished if the biomass is below -- the biomass of guppies in South Guinea is less than 15 pounds.

So, you have to be careful around and to be clear about the context when you're talking about these two things. Now, the Sustainable Fisheries Act and most of the fairly progressive technical advice will distinguish between overfishing and overfished, understanding that overfishing can be happening without a stock being overfished and vice versa.

I'll try to explain this. You can have every possible combination of overfishing and overfished. Now, this is a famous NMFS box, all right, on the up and down on the left-hand side, there are two levels.

We have high F's, F's that are higher than some threshold level. That is to say that overfishing is occurring. We have low F, F's that are near target, that's no overfishing.

Across the bottom, I've written low biomass, B lower than threshold. That means overfished. On the other side, we've got high biomass. You know, B near or above targets means no problem.

Now, we have every possible combination of overfishing on the left and overfished on the up and down. In the upper left-hand corner, you can see that overfishing could be occurring on a stock that was overfished. Lower left-hand corner, the stock could be overfished even though there's no overfishing.

Upper right-hand corner, you could have overfishing on a high biomass stock; or, you could be down in the lower right-hand corner where you have no overfishing and the stock is not overfished. Presumably, that's where the money is made.

That's where the catches stay high. That's where the revenues are high. For pure economic reasons, that's sort of where you want to go.

Now, here's some real recent examples. It's the same box; no overfishing, overfishing, overfished, not overfished. We've got up there overfishing and overfished. Sea scallops in the Mid-Atlantic Bight, there's no overfishing there, but they're still overfished.

Haddock is neither. Sea scallop in Georges Bank is subject to some overfishing at present, but it's not overfished. So, in the real world, you see every possible combination of these things.

MR. GEORGE LAPOINTE: The last assessment said we were overfishing but we're not overfished?

MR. JACOBSON: I would say that the last assessment for lobster would be characterized as, using this terminology, that overfishing is occurring, but the stock is not overfished in the sense that it is not at a low biomass level.

Now, overfishing, remember overfishing goes with F-based reference points and those are the
first tool. So, the concept of overfishing is generally viewed, technically as I think, more important than the concept of overfished because the best way to avoid an overfished stock status is to avoid overfishing.

So, we generally worry about overfishing or we can talk about overfishing even for a stock that's not overfished. So, that's the situation with lobster.

Now, life is sweet for me, for technical people, when managers define targets and thresholds, and it gets downright rosy when they define targets and thresholds for both fishing mortality and for biomass.

The problem with not defining targets and thresholds is that otherwise thresholds tend to become targets. There is no marker to focus attention on a desired stock condition in the absence of a target; and, inevitably, for some reason that perhaps you understand better than I, people start to associate the threshold with a target.

I think it's a good idea for you to at least consider separating in policy what you see as a target and what you see as a threshold, and I am going to suggest that you consider doing it for both fishing mortality and for biomass.

So, there's some advice at the bottom. It's technical advice. I don't know, maybe there's a touch of policy to it. I'm sorry if there is. I guess I'd argue that I can do a better job of technically assuring you that your reference points will do what they're supposed to do if you develop targets and thresholds and if you do it for both fishing mortality and biomass. Okay, enough of that.

All right, reference points imply an ongoing data collection and assessment activity. Now, this is no small matter. I mean, basically if you have a reference point and it's a reference point that you intend to apply every year, for example, if that's your intention, you have to be doing something every year to compare it to, perhaps a stock assessment or whatever.

Reference points imply ongoing data collection and assessment activity. Depending on what you do for a reference point and where you choose to put the reference points, you can have an effect on how often the stock assessment work has to be done, how precise the data have to be, how precise the estimates are going to be, et cetera, et cetera.

So, anyway, you've got to measure something for comparison to that benchmark. All reference points involve work and that'll be the work of your staff, and some reference points involve more work than others, both in development and in application.

All right, reference points imply management action, ideally. Now, not necessarily. In the federal arena, we are obliged to do certain things when we cross thresholds. Now, I understand that you're not.

You don't have the same sort of legislative mandate, but ideally, I suppose, the reference points imply management action. Else, why would you have me here?

So, it's important from a technical point of view, when we're developing options, for you folks to sort out amongst, and when we're making technical recommendations, to understand what you want to do or what you will do or what we can expect you to do in our analysis to move towards your target and away from your thresholds.

So, this business starts to bite a little. It starts to get a little bit tough and you get into all these questions that can be very uncomfortable. How will the managers respond if a threshold is crossed?

Now I really can't -- it's hard for me to give you advice about what might work for you technically as a threshold if you don't tell me what you're going to do to stay away from it or what you're going to do if you cross it.
What basis do I have to choose a set of options to give you? I also need to know how quickly the scientists and the stock assessments and the managers and the bureaucracy and the Federal Register and all of that can respond.

Now, if you were managing your own stock portfolio at home on the computer and you could buy and sell on line, you would be assured that you could address an emergency immediately, and you might be prepared to set a financial threshold very low because you know as soon as you cross it, you can turn around and move the other direction in the matter of a few minutes.

Now, what if a fisheries manager, though, is constrained to management reactions that take a year or two years or, realistically, even longer? You see how it affects the choice or should affect the technical analysis and recommendations for management option definitions of overfishing.

Anyway, so you get this whole package and it's a pretty good sized package, and the truth is that all aspects of this package aren't addressed, and I'm sort of taking a high technical line with you and I'm speaking from an ideal perspective, perhaps.

You have this whole package and it consists of policy and goals. That's your domain and your attitudes towards risk, risk to the fishery in the short term, revenues in the fishery in the short term, risks to the stocks in the long term, et cetera, et cetera.

It involves target reference points, ideally, and they define your management goals. They're key. It describes thresholds and limit reference points for what you want to avoid. There are all these stock assessments and data collection activities going on, millions of dollars worth of activity and then there's management actions.

All this is tailored to the biology in the fishery, resiliency of the fishery, uncertainty about things, and all built around logistics like what is practical, and these logistics and questions of practicality are paramount.

A lot of the examples I'll show you this afternoon seem to involve F-based management, but you may or may not, I'm not sure, be in a position in the lobster fishery to affect F.

For example, how long does it take to get the catch data in order to look at to even come to grips with what F is, et cetera, et cetera? There's a lot of logistical questions.

The technical analysis of options -- and that's really the domain of the technical person like me. I can make recommendations for you, but what I want to do for you is I want you to tell me what you want, and I want to give you some choices that seem in the ballpark and stand back and help you choose amongst them.

Anyway, the technical analysis boils down to one big question and a lot of small ones. The big question is will the whole package help the managers go where they want to be and will it help them stay there? There's a lot of small questions.

Are the benchmarks measurable? Are the data and estimates sufficiently precise? Is the workload reasonable? This is a big deal. The workload for staff is something you really need to think about when you're thinking about harvest policy.

Are the legal requirements addressed? Does the package require unrealistic management actions; that is to say, management actions that are too frequent, too fast, too drastic, too expensive, or too unpopular. You've got to think about that stuff, too.

Okay, here now we're really going to the ideal situation. I'm going to talk to you real briefly about some things that are called control rules or harvest rules, and these are things that have been promoted in the technical literature for decades.

They are required now in federal fisheries. Required may be too strong a word, almost required in federal fisheries under the SFA and the
technical types like me love them.

Anyway, a control rule is a pre-agreed, it's almost a social compact between managers and all the constituents that are involved that involves laying out beforehand the overfishing definitions, the reference points, how managers are expected to react if they get into key situations like overfishing or overfished stock conditions, and these things are nice to the extent that they use technical and management resources effectively.

Because, if the reference points are clear and objective and you get to where you've triggered one of them, you know what's going to happen and everybody knows what's going to happen.

They're very easy to analyze from a technical point of view and they're debated once, so you don't have to debate the policy and the tactics for implementing the policy every year that you happen to be in a bad position.

You debate them once in view of the goals, the data precision, the uncertainty, and other factors, and then the rule stands until it's replaced. They're relatively easy to analyze. You may not care much about that, but I do, because all the pieces are there.

They're used in most of the federally managed fisheries. They're widely advocated. They're measurable and objective. They probably work well in most fisheries if you can do them.

Here's a common SFA rule. Now, this is one I'd really like to wave my arms around. I don't know if this is going to work with me standing back here. This common Sustainable Fisheries Act control rule, you've all seen it.

It's got fishing mortality on the Y-axis going up and down, stock biomass across the bottom, and it's got biomass thresholds. You can see there's a stock biomass threshold of 5 tons, say, on there. And there is a stock biomass -- it should say stock biomass target.
He's going to aim for fishing mortality rates that are somewhat below his threshold as a matter of policy. Okay, so we can see that here's the target. When the manager's biomass falls below the target, he starts to reduce his fishing mortality.

When the fishing mortalities fall below this management threshold, he basically eliminates the fishery. In this case, F goes to 0. That isn't a necessary feature, but that's what's going on here. How about the next one? Any questions about that? You've all seen it a million times, haven't you?

It's ideal. Like I say, I don't know whether it's applicable to lobster, but maybe you'll find something in it that is. Anyway, this is a survey. I want to let you know what's going on in other lobster and crab fisheries.

This is a biased sample because these are only federally managed lobster and crab fisheries, so basically all these fisheries belong to the same manager, but this is what we have.

This manager's policy is prescribed by law to achieve something they call optimum yield. Optimum means somewhere around maximum sustainable or a little less than. Their biomass target is always BMSY or some proxy.

The control rules, they all have to use control rules and the control rules include overfishing definitions based on biomass threshold and fishing mortality rate thresholds and targets. So, let's just move on. It's the same rule that we've seen before.

MR. POPE: One quick question. On the left hand side, on fishing mortality, if we were going to use a different form, like say as a percentage, like yesterday we adopted the striped bass. The numbers would be opposite as a percentage?

MR. JACOBSON: No, because as the fishing mortality goes up, the fraction of the stock that you catch goes up, too. So, you're basically saying -- you could cross this out and make this like exploitation rate, would that be --

MR. POPE: Well, F 20 percent, F 30 percent, and so on, what we adopted yesterday in the striped bass fishery.

MR. JACOBSON: Let's say that that's F 20 percent.

MR. POPE: It would be reverse --

MR. JACOBSON: Let's say that that's F 30 percent and that's your target. Let's say that for this stock, F 30 percent is 0.2. It's confusing isn't it, because there's a lot of percentages and points going on, but say in this case that F 30 percent is the manager's target and for this beast, F 30 percent is -- see, to get the F 30 percent, he has to take about 20 percent of the stock a year.

For this beast, F 30 percent happens to be 0.2 because a typical female will get a chance to spawn about 30 percent of her maximum potential lifetime eggs at a fishing mortality rate of 0.2.

So, let's say your target is F 30 percent and F 30 percent happens to be 0.2. That's your threshold. You don't want to go any higher than that, and you've decided that you are going to keep the threshold F, the upper limit on F at about 0.2 until the stock biomass falls to about 20, and let's say 20 is half the maximum biomass or something like that, and then you're going to start wrapping it down towards very, very low fishing mortality rates at low biomass levels.

I don't know if that helps or not. It happens that you set your target F's a little lower than your thresholds, which makes a kind of intuitive sense. This is the standard, common, Sustainable Fisheries Act control rule-- okay, go ahead.

MR. POPE: I'm sorry, I'm just curious as to how it would look as far as numbers. Would the numbers be that way or reversed? In other words, would it be --
MR. JACOBSON: If I'm understanding the question, it would be this way.

MR. POPE: It would be that way?

MR. JACOBSON: Just a second. No, no, an F that gives you 0 percent.

CHAIRMAN COLVIN: Guys, we're going to take like a 2-minute break because the staff has found a lapel mike for Larry. This will work great.

MR. JACOBSON: And I'll think of a good way to answer your question because I'm going to talk to you about it right now and figure out what you're asking.

(Whereupon, a short recess was taken.)

CHAIRMAN COLVIN: All right, Board, come to order. Go ahead, Larry.

MR. JACOBSON: All right, I'm going to answer the question and then I'm going to move quickly because I understand I'm taking too much time. For example, for your striped bass, you would have chosen F 20 percent.

Roughly here would have been the threshold and say F 30 percent would have been down here. So, in answer to the question, the numbers may seem flipped.

If you like, this is a list of all of the federally managed crabs and lobsters. Yes, I know it's hard to see. The biomass and the F thresholds -- move on and I'll show you what we have if we summarize them.

If you look at all these federally managed thresholds and you ask do they have an F threshold, yes or no? Do they have a biomass threshold, yes or no? Nineteen of them have both. One of them has a biomass threshold, yes, but no F threshold.

Five of them have an F threshold, but no biomass threshold and there's two of them that are out there that still have nothing and that's because there's no information available for them or they're almost unexploited. Notice most of these stocks have an F threshold and there aren't very many that have a biomass threshold, but no F threshold.

All right, here's an opinion. I think decisions belong to managers and the line between decision-making and technical analysis becomes blurred. I've seen this happen in lobsters.

I would prefer to draw a firm line, leave the policy decisions to some one else, and let the technical people work on technical options under a carefully constructed terms of reference.

It's important, though, that the terms of reference be clear and that the policies are clear. I want to reinforce this in the terms of reference and in our discussion. The goals, policy, and intentions are very important to me, because once I have them, as a scientist I can develop feasible options.

I think that you should encourage us to give you options, rather than a single number or set of numbers that works because we are really not prepared to make decisions about which one might be best for you given the socio-economic considerations, political, et cetera.

MR. POPE: Would you go back one just real quick so I can read the bottom?

MR. JACOBSON: This is a joke, but not a good one obviously. We can give you recommendations. If you give us clear goals, it'll protect our technical deliberations. It'll allow us to focus on the technical aspects.

We won't have to spend time debating what it is you want or what it is you need, even worse. My advice is define targets and thresholds. Even if you can't get to the target now, it's a good idea to
It's very constructive and it keeps everything clear to distinguish between the targets and thresholds so that there's no confusion about whether a threshold is -- whether F 10 percent is a threshold or a target, for example.

Remember, the goals take target reference points and the situations you want to avoid take thresholds. The problem is when you confuse a threshold and a target is that they become confused and you tend to stay in your threshold.

The F targets and F thresholds are the key, I think. In common technical practice, they are viewed as more important and primary. There is a tendency in managers to worry only if the stock, for example, gets into a low biomass condition.

The problem is if you don't worry about fishing mortality rates -- in other words, it may seem reasonable to begin worrying and to take special attention only if the stock goes into a low biomass condition, and that's what no one wants because no one makes money under those circumstances.

The trouble is that your chances of getting there are higher if you don't pay attention to the fishing mortality rates and perhaps to the environmental conditions, also. And the other thing is it gives you a reference point, your focus on reference points that address something that you hope to able to affect.

I'm going to advise you to distinguish between overfishing as a rate and overfished low biomass conditions. Overfishing means F too high. Overfished means B too low. You've seen that you can get those things in any two combinations.

It's a good idea to separate them in your deliberations, considerations, and perhaps in policy. You know the standard line you get from biologists is that overfishing will eventually lead to overfished stock conditions, low catches, and low revenues.

It'll probably happen when the environmental conditions switch. Typically it's a one two punch thing. You know, a little more fishing than you need and a bad environment.

Use a control rule approach if you can. It facilitates technical analysis, makes the biologist feel good, promotes long-term planning, and they're like Tylenol. They're good for what ails you. They won't solve all your problems, but I think they're good for what ails you if you can do them.

Be practical and realistic. Keep it simple if you can. In these complicated, over-capitalized, over-capacity fisheries, there's a tendency to always be pushing the limits and to try to basically push the envelope. It leads to a lot of complexity.

There's some virtue to keeping things simple. You've got to consider cost and logistics. It's a very expensive business.

Consider the precision of your data, the frequency of your assessments. For example, for lobster right now, the assessments have been 6 years apart.

Do you really want to move to an assessment schedule that might involve more frequent assessments? Consider the speed of your management actions. Be honest and realistic about the uncertainties. There's no reason not to be.

Consider who will be doing the work, and it's basically your staff who will be working on lobster or striped bass or whatever instead of something else.

This is the last opinion, I promise. There aren't any silver bullets. Whatever your problems are in lobsters, I will be pleased, but surprised, if you solve them entirely with reference points, particularly new reference points or additional
reference points, particularly if your problem basically boils down to excess capacity and sort of socio-economic kind of problems.

Also, you may not do any better than the reference point you've got now. I'm no great apologist for F 10 percent. It's a simple number to calculate. It's often used because in most arenas it's values, reference points like F 10 percent or F 20 percent are not controversial in calculation, although I guess they've proven to be in lobster.

You may or may not be better off at the end of this than where you are now, so have realistic expectations and go ahead and move forward. Okay, do you want to take a break or any questions or anything? I'm going to shift gears a little bit and then I'm going to present the technical committee's paper.

Okay, I am not on the technical committee, so if I misstep, Carl, speak up. Carl wants me to hurry, so I'm going to do my best and skip through his stuff. This is a quote, "There is consensus within the technical committee to develop new options. This work can be accomplished with further guidance from the management board."

I don't think this work can be accomplished very effectively without it, and, for example, personally, I'll have less interest in the work if I don't have a clear statement of what's required. So, we see clear, considered, and written instructions and you should, in turn, expect to get exactly what you ask for.

I think, based on my experience, that the process of doing technical analysis works better if there's a clear separation of management intent and policy in the technical work, and I'm going to encourage you to take that line and to really think about what you want us to do and be honest with us about it, and we should give you exactly what you ask for, within reason.

I mean, it's an intelligent two-way kind of a process a little bit. It is important for the board to provide the TC with answers to the policy questions and to develop terms of reference based on the attached strawman.

This is out of your report. So, let's look at those policy questions and then let's look at the terms of reference. I'm going to give these to you verbatim. We'll go through them. If there's any discussion about them, let's have the discussion.

We've got Carl Wilson here. These are questions the technical committee feels it needs to have answered before it can proceed with the work.

They want to know whether you want them to develop options with a wide range of levels of potential economic and biological risk in both the short term and the long term. In other words, they want to know what you're worried about.

Are you prepared to be risk neutral? I mean, are you risk neutral? Are you prepared to take the ups and the downs of the stocks in equal measure?

I mean, do you feel you have as much to gain with the stock going up 10 percent as down by 10 percent? We need to have some feeling for the range of ecological and economic risk that you're willing to undertake in managing lobsters.

We don't care, really, what range of risk or what your attitude is. We only need to know it so we don't waste time on options that are either too risk averse or too risky for you to even bother with.

MR ERNEST E. BECKWITH, JR.: Larry, how do we characterize that risk for you?

MR. JACOBSON: I would say it's a hard problem. Are you willing to undertake drastic changes in management in the event of a low biomass condition to avoid prolonging it? Would you consider options that closed the lobster fishery at low biomass levels?

Would you do something that might reduce your
catches in the near term to enhance catches and abundance in the long term? Are you concerned about or do you feel that lobster are inherently risky or not in terms of their biology and the condition of the fishery? It's difficult, and that's just a partial answer, but in some sort of common sense way, it would be very helpful.

MR. WILLIAM A. ADLER: Larry, are you talking -- when you define the work options there, are you literally talking about management options like what you just said, a closed fishery or do this or do that? Is that what you're talking about when you define the word options?

MR. JACOBSON: No, we're talking about definitions of overfishing here, so when I talk about options I'm talking about something like, say, hypothetically Option A, F 10 percent, status quo; Option B, management target, F 20 percent; management threshold F 30 percent and take some sort of particular action if the abundance of lobsters falls below one quarter of its historic high.

Another approach might be to define a threshold in different terms, as fishing on lobster smaller than some minimum carapace length and to define a target as aiming towards a larger carapace length.

A threshold might be -- an overfishing definition might be fishing that occurs on lobsters before they've had a 25 percent chance of spawning. Your target might be to have a gauge that would give every lobster a 50 percent chance of spawning before it was captured.

Those are the kinds of options I'm talking about. Now, if you feel that you can trust the lobsters to take care of themselves under conditions that are adverse and conditions that are good or if there's so much money, for example, in lobsters right now that you're not concerned about the long term because the revenues you're making now can be invested and provide a revenue stream down the line, well, you might choose to work the system a little harder now.

See, it's difficult to convey. Does that help? I'm not talking about the option of closing a fishery or not. I'm only talking about options for definitions of overfishing and thresholds and things like that.

Do you want us or do you want the technical committee to develop options that distinguish between overfishing and overfished? And that would be a big departure from lobster and we may or may not be able to manage it, but do you want to think about that one? George.

MR. LAPOINTE: When we discussed the overfished, the low abundance condition, do we estimate biomass in the assessments?

MR. JACOBSON: Yes, we do as abundance, not biomass, as a rule, but it could be biomass, and we do it about every six years, at the recent rate.

Do you want us to look at targets and thresholds both or are you focused right now on just the thresholds because that's your immediate problem. Any question of these before we move on? Yes.

MR. W. PETE JENSEN: I guess the question that occurs to me is what's the risk of doing a stock assessment only once every six years as opposed to some other period of time from the technical committee point of view?

MR. JACOBSON: It depends. I would ask the technical committee.

MR. WILSON: I think the technical committee may not love to, but I think it would be good to do some kind of stock status yearly or every other year or something like that. I think right now -- and Larry certainly knows this much better than I do, as I came on just as the assessment was finishing up --, and Mark can speak to this -- is the data needs are a huge deal right now.

And if we had a centralized lobster database that we could just go in and get out what we need and do our stock status and go back and report back to you, we're not talking super hard stuff. I think,
Mark, you can probably speak to this. It was getting the data together and landings data and where did it come from and when.

MR. MARK GIBSON: Yes, I agree with that part of it. I think Pete may be getting at a broader question in terms of risk of having long periods between assessments, so it can do several things for you.

First, on the positive side, it can provide some stability of management because you've set things into place in response to a particular assessment and then let them ride until more information comes in.

Now, that information could be good or bad down the road. You may be on target six years from now or in a bad situation, so I think there's a tradeoff between the timeliness of the assessments and stability of the management process unless you have a very good set of control rules or response rules as to how you respond to advice and how you steer during the mid-course of the interim periods.

MR. JACOBSON: Where are we now, I've forgotten. Have we done this one? Do you want us to think about options for defining overfishing, setting thresholds that would require management measures in addition to what you use now in the lobster fishery?

I mean, would you consider closing a lobster fishery, for example, in the event of a very low biomass situation? Are you prepared to undertake seasonal closures or area closures or harvest quotas in the lobster fishery, or is it meaningless and senseless and a waste of time to think about reference points that might require that kind of action?

So, any discussion about that? Some reference points, for example, F-based management typically involves quota management. Do you recognize or admit or do you want to consider options that account for the fact that it may take you two or three years to do anything once you cross the threshold?

I don't know how long it would take you, but I've seen situations in other fisheries where it was really difficult to do anything in time periods less than a year or two, particularly if there's likely to be a lot of debate about the necessity for it.

You can see that this will push you -- it's important that you recognize this, if you want to take this into account, because it will push your reference points in a particular direction. You'll tend to set reference points -- if you believe that you cannot take action quickly, you'll tend to set reference points in a sort of more risk-adverse fashion.

Do you want to -- and I can imagine reference point options that would require substantial investments in new data collections programs. For example, if you had a reference point that was applied on a small area basis to the coastal waters of the Gulf of Maine, you'd have to be sure that you had a survey there and that you had the capacity to analyze the data on a sort of rapid enough basis, and the same goes for other areas. Any questions there?

Okay, do you like control rules, concrete decision rules or control rules? Would you be prepared to undertake that kind of a step in the lobster fishery, understanding that it's sort of technically recommended, but one size doesn't fit all.

Now, this is an interesting idea. Do you want us to think about options that could be potentially applied for a single stock independently in different areas?

I know that you're interested in area management, but would you be interested in some sort of overfishing definition that applied on a local basis, recognizing then that you'd have to deal with the question of whether the stock was overfished in each of those areas every time you undertook to look at the question?
And you'd have to have the data collection and assessment capability there. Still, it's interesting. I know that the area-based management is of interest in lobster, so we ask you this. Are you interested in it? Are you interested in options that involve stock assessments more frequently than the current interval of six years?

All right, that's a natural break point before we get onto the terms of reference. Those are the things that the technical committee thought were relevant questions and somehow -- go ahead, George.

MR. LAPOINTE: When you get into the question of area management and certainly Maine has -- we've got our seven areas in ASMFC and seven areas in Maine, and we have people ask if in fact you could assess by area in Maine. My sense is that right now we do assessment in, what, two or three -- coastwide, how many assessment areas are there?

MS. STIRRATT: Three.

MR. LAPOINTE: Three and I think that technically people are uncomfortable with carving that into our seven areas, so to go to a finer scale would take a bucket load more data collection, wouldn't it?

MR. JACOBSON: I would think so, yes. Furthermore, then you'd have to deal with the administrative and the regulatory politics of perhaps being overfished or have overfishing occurring in more than one area and the remedial actions.

MR. LAPOINTE: And cross area affects.

MR. JACOBSON: Yes, yes. Somehow you need to undertake to get answers to these questions back to the technical committee and back to Mark Gibson, who will be the leader of the reference point group.

Now, there probably should be some back and forth thing. It's not like this is the perfect set of questions. I've asked you the perfect set of questions, you're going to give us the perfect set of answers, and then we can all set off.

I mean, you'll have to somehow manage to get a little communication going back and forth between the principals, but to the extent that you can answer those questions, I think this work will be facilitated.

CHAIRMAN COLVIN: George.

MR. LAPOINTE: Obviously, we're probably not going to answer all the questions. We'll be lucky if we set a direction. Can we get copies of the kind of questions you're asking. I mean, my memory is more feeble than most. Are they all in there?

MR. JACOBSON: Yes, and these are verbatim.

MR. LAPOINTE: I guess I was just concerned --

CHAIRMAN COLVIN: Let me just put this question out there. The board needs to address the questions and there's any number of ways we can do it, one of which is to just have at them right now, but I have no idea where the --- and, quite frankly, if it were up to me, I know exactly what I would recommend on each of them personally, but I have no idea where everybody else is here.

So, let me ask this question. What's the board's pleasure here? Do you want to have an opportunity to go home, sit down, talk to your own technical people, and revisit this at a future board meeting; and if so, do you want some kind of a straw proposal to be brought forward to facilitate taking action? What suggestions do folks have on how we can proceed here? Pat.

MR. PAT AUGUSTINE: Mr. Chairman, can the technical committee continue in their efforts and determination, what you're doing right now, without a decision today?

CHAIRMAN COLVIN: I think what I'm hearing
is not very far.

MR. WILSON: But I think we can move a little bit in that there were basically five areas of modeling and modeling independent on page two. So, yes, we could continue along those lines. A lot of this will -- you know, this is the next logical step, I guess.

CHAIRMAN COLVIN: Follow up, Pat?

MR. AUGUSTINE: Yes, thank you. Well, these are the five items that you're talking about, the problem statement you're making. It would seem to me that -- if we have time, it would seem to me that the board might look at these five major areas and if there's anything in there that we could agree with.

For instance, there's ambiguity about whether F 10 is the target or a threshold. It would seem to me that something as straightforward as that could be addressed today. Is this the list you're talking about?

MR. WILSON: No, I'm sorry. I was talking about on page two, the five general areas. You have spawner recruit models.

MR. JACOBSON: He's talking about this.

MR. AUGUSTINE: Okay. May I make a suggestion, Mr. Chairman?

CHAIRMAN COLVIN: Go ahead.

MR. AUGUSTINE: Under your guidance, would you consider, if time permits, quickly going through these on a one-by-one basis and ask for any specific recommendation from the board so that the technical committee can go forward?

CHAIRMAN COLVIN: Well, that's an option. Let me hear from some other board members. Ernie.

MR. BECKWITH: Yes, I think the kind of issues and questions that Carl has brought up are basic and fairly straightforward and I think we should probably try to address them today. I think it would be time well spent.

CHAIRMAN COLVIN: Bruce.

MR. BRUCE FREEMAN: Thank you, Gordon. The issue you raised was should we take these back to our technical people. It seems to me these are management decisions; however, that said, it seems there still has to be a two-way street.

For example, we could make a determination of what we'd like to see from a management perspective and yet, technically, it may not be obtained with the information we have.

So, we could have a great list and then technically you'll never achieve it because it'll take us another ten years to get the information to do so. So, there has to be some exchange at least, what's realistic and what isn't or what's the time. Otherwise, we're going around in a big circle here.

CHAIRMAN COLVIN: Yes, and I think Larry and Carl both kind of hinted at that. This may need to be a somewhat iterative process, and I think that another, perhaps even more likely scenario, Bruce, is that the board responds in a certain way and that leads to an answer back that when we look at, we go, oh, my God.

So that's a possibility as well. Well, it seems like most everybody is of the opinion that we ought to at least try to go down this list and see if there are at least a kind of a consensus recommendation we can make today, recognizing that this is going to be an ongoing process. Pete.

MR. JENSEN: Which list are you referring to, Gordon, the list of five approaches?

CHAIRMAN COLVIN: No, the list of the one, two, three, six, I think it's ten policy questions for management board consideration, which are the questions that Carl just read to you.
MR. JENSEN: Okay, I was focusing on that list of five approaches in terms of Pat's question and it would seem to me to be useful if the technical committee could give the board a quick review of the advantages, disadvantages, weaknesses, strong points, for each of those approaches because it appears to me -- and I'm referring shortly back yesterday to the presentation on the same kind of a list on the striped bass board, where it was clear that some could be done with current data and others would require data collections. So, I think it might help the board to go through the same kind of exercise if we could.

CHAIRMAN COLVIN: I think where we are at this point is that the work with those approaches is something that the reference points group needs to do from here on out, Pete, and probably come back to us with the kind of presentation discussion that you're talking about down the road, but I think right now, before they even get into that, they're looking for the kind of guidance that we need to give them on these policy questions. Is that a fair enough statement, Carl?

MR. WILSON: Yes, I think the policy questions are more general guidance and then, you know, Heather brought up that we did generate a table with very specific reference points from different modeling approaches and stuff and there was a feeling that it was just too quick. It is an interim process here and we want to --

CHAIRMAN COLVIN: I think the group is still working with these different modeling approaches, and it may well help them to ascertain where they want to put their emphasis on further model development once they have a better sense from us of how we respond to these questions.

That said, then without objection, what I'd like to do is just basically go through these questions one by one and see how we want to go. Now, I don't know about everybody else, but I'm finding the first question probably the hardest one to tackle. Do other people feel that way? Go ahead, George.
They're interrelated. That may be the basis of your question. There's economic risk and there's also economic. There's economic risk from acting in a conservative fashion when you may not need to, and then there's economic risk from a biological problem.

CHAIRMAN COLVIN: It may even be, to facilitate the process, best to assume the words "of stock collapse" are deleted and a question mark is put at the end of this. Now, what the question then focuses on is do we want a wide range of economic and biological risk assessed, and the answer I heard from one member was yes. Another answer, Ernie?

MR. BECKWITH: Thank you, Mr. Chairman. I've got a couple of comments here. I do agree this is one of the more difficult ones, and my first comment was why don't we save that for last and go through the table.

But then to comment on that issue, I don't think we want a wide range. I think what we want to do is give the technical committee probably a narrow range of options.

CHAIRMAN COLVIN: Bruce Freeman.

MR. FREEMAN: My question to either Larry, Carl, or Mark is how would you determine the risk? What units? Is this probability? When you say risk, what comes to your mind?

MR. GIBSON: Well, generally when we talk about probabilities of stock biomass reaching some action level or a critical level, that's what comes to mind when I look at that statement, that if we were to adopt a particular reference point, an F reference point, for example, it would have associated with it some probabilistic statement that if we fish at this for the next 20 years, we will have some risk of biomass falling to what we think is a critical level; and if we fish at a lower reference point, we would have a lesser probability of dropping to some critical biomass level. Those are the sort of things that come to mind for me.

MR. FREEMAN: Right. Let me just ask, the other issue is the economic risk. How can that be measured? Just from your standpoint, Mark, that we'd fish at a given level and if we're too high or too low, there's economic consequences and each would have to make that decision. That would be a management decision?

MR. GIBSON: Yes, I mean, clearly if the stock biomass drops to some critical level because of a choice of an F target, there are economic consequences to that.

I think we'd probably be less well equipped to speak to the economic projections as we would to be the biological one, but minimally you would have projections of yield in pounds, metric tons or whatever it is over a long-term planning horizon, say, 10 years or 15 years, and average yields might be on some level under one F target and there might be another level under another F target, and there might be a clear distinction between those given the likelihood of what the stock dynamics will have a stock do.

So, I think numbers can be attached to that depending on what the stocks projection trajectories do.

CHAIRMAN COLVIN: John Nelson.

MR. JOHN I. NELSON: Thank you, Mr. Chairman. I was kind of intrigued by this first one, and usually I get from technical committees that they don't want to have to do a wide range of analysis.

They'd like to have us narrow it down so that they're not spending a lot of time generating ranges, some of which are going to not be acceptable at all. And what I'm getting from this is that this would be for an informational point of view versus taking action.

I just think Ernie is correct. This one we ought to wait on and let's do this one as the last one, not
delay acting on it, but I'm not sure how much work we're asking them to do.

CHAIRMAN COLVIN: I still have a lot of hands up, so how do you want to proceed? If folks don't want to deal with this now, put your hands down and we'll come back to it at the end. My original inclination was to hold it off until we went through the others because it's a little tougher to understand how we respond. Larry.

MR. JACOBSON: Perhaps it's a poorly worded question or a difficult issue. Maybe you should consider telling us what you view as risks or risks that you want to avoid. Remember, you're in charge, not us, and so maybe it would be constructive for you to tell us what you're afraid of and what you want to avoid. That's another approach possibly to take.

CHAIRMAN COLVIN: Shall we delay this one until a little bit later? Okay, on to question now numbered two, develop options that distinguish between overfishing and overfished stock conditions? It is clearly recommended that we do so. Is there any opinion other than yes around the table? Lance.

MR. STEWART: Oh, okay. I was talking about number one.

CHAIRMAN COLVIN: Again, I'll ask this. Is there an opinion other than yes with respect to question number two? Bruce.

MR. FREEMAN: The issue that confounds this entire process is that if we went back ten years ago and you developed a fishing mortality reference point and overfished, it probably would be different than what it is today.

I mean, we've seen this go up a matter of probably three fold. And I would have to ask the question, if there is a downside to that, can we ever detect it in a reasonable manner?

I mean, if for some reason we're at some high level, the reason of which we don't know, but if we were to return to a lower level, how would we know other than the fact that you're not going to find many lobster? Is there a way of making that determination?

MR. WILSON: I think Larry touched on it really briefly and I'll try to characterize what he said. I think he said if there's a risk, what's the biological and economic risk for increasing by 10 percent landings, and there is a risk for decreasing by 10 percent; and again, that's the technical committee would be asking the managers if we return to 1990 levels, do you want us to put the biological risk of the stock on that or do you -- it's a very hard question.

MR. FREEMAN: Well, yes. I mean, you want an answer, but I tell you, when you give it thought, it's very difficult --

MR. WILSON: Maybe not an answer, just directions.

MR. FREEMAN: Well, let me just ask, Carl, from your perspective from the technical committee, do you believe you can detect a reduction to what we've seen historically to the
historic levels, which were much lower than they are? I mean, can that be determined before we experience it? Can we make any predictions, is that possible?

CHAIRMAN COLVIN: Mark, did you want to try to tackle this, too?

MR. GIBSON: Yes, I guess what I would point out to the board -- and I think Larry said it in his presentation -- I mean, I support doing this. I mean, it's being done in just about all the managed fisheries, but what you might have to be prepared for and think about is if you embrace a fishing mortality rate target which deals with overfishing or an abundance-based reference point, which would deal with an overfished condition, you may be in a position -- and we already know that there is some evidence of declining abundance in certain areas -- and then embrace an FMP and adopt an FMP that has those in there with some sort of response rules.

You might have to address declining abundance, which could be declining for reasons other than overfishing, but you will be locked into your set of decision and control rules that you will have to respond to declining biomass as if it were occurring because of overfishing and start reducing the fishing mortality rate.

You may not believe that that's what happening or why it's happening, but that would be one of the consequences of this, and we do have evidence that lobster abundance has fluctuated over time and there have been periods of low abundance before, and we may in fact be heading towards one right now. There are a number of places where abundance indices are declining.

MR. FREEMAN: If I may, Mr. Chairman, Mark, as I understand what you're saying is, yes, we could probably detect it, but it would be within the confines of our control rule and we'd have to take some action.

MR. GIBSON: Yes, depending on how that's constructed, you may have to respond. If it's a control rule example like Larry put up, as biomass starts to fall, the allowable fishing mortality rate of that target starts to fall with it.

Now, whether it falls and they both reach zero at the same point or whether F goes to zero at some positive biomass level, that's the devil in the details of the biomass control rule, but you still have to respond to it even if it's not due to fishing and you don't know why it's happening.

You have to respond to it whereas now all you have to respond to is fishing mortality rates. They seem to have been high for a long time, no matter what abundance did.

CHAIRMAN COLVIN: Thank you. Bill.

MR. ADLER: Somehow I feel like a kid in a candy shop here with nine wonderful things to check on and, of course, the more information, the better. I see that most of these here I would love to have the information on because now you'd have this whole suite of information with perhaps number six being the last one of importance, simply because while I'd love to have it, I find the other eight more relevant to trying to make decisions with number, I think it's three, very important because of the long discussion that we've all had about that infamous F-10 and whether or not it should be F-10.

You brought up whether it should be threshold, target, or whatever, and I'd love to see what the technical response would be should we do something with that F-10, establish it as a threshold, da-de-da-de, da, whatever. Can you do all of these in less than 10 years? I mean, is this something that -- if we were to say yes to all of these, is this something that you can do?

MR. JACOBSON: I encourage you to be as specific as you can. We haven't done this before and perhaps we don't do a very good job of asking questions. I think that it's a good idea to give us as much guidance as you can as to what you're
interested in.

For example, perhaps if I had to do it over, I would rephrase number two to say something like are you prepared to change your management approach as biomass increases and decreases. In other words, as well as are you interested in defining overfishing as a rate, as you have been doing, and in addition are you interested in identifying overfished stock conditions?

Now, what that means is, as Mark indicated to you, are you prepared to contemplate changing management if you see a decline, God forbid, in abundance, and hopefully you never would? Perhaps the questions could have been worded more to a point. Is that in the cards at all for you?

MR. ADLER: I think that's something we would do. I wouldn't like to see the SFA rules of engagement here. I think we have a little more flexibility rather than you will all drop dead when it hits this number, but I think we would.

We have always moved in the direction of doing something if there's information that it needs to be done. I think that's what we would do. I don't know that's something you've got to study and come back to us on, I think that's something we do try to do.

CHAIRMAN COLVIN: I would just like to point out to the board that the sum substance of several of these questions put together is this, do you want to do with lobsters what you did yesterday with striped bass?

And I hope everybody understands that and I'm going to ask that we really focus this discussion, please, on what I ask you and I'm asking you again.

Does anybody want to propose answering question number two other than yes; and if so, speak up because we've got to move. And if nobody does want to answer it other than yes, we'll assume that we have a consensus on that response, recognizing that nothing is herein etched in stone and that this is going to be an iterative process and that we expect to continue this dialogue with our technical committee and the subcommittee forever, for as long as we're managing lobsters. Okay, Gil, you have your hand up.

MR. POPE: Yes.

CHAIRMAN COLVIN: So that means you're going to answer other than no.

MR. POPE: No. I'm answering yes.

CHAIRMAN COLVIN: Well, then why do we need to talk?

MR. POPE: Because, frankly, I'm surprised. Most of these, I'm surprised that they're not already doing them and I would say yes to most of them.

CHAIRMAN COLVIN: So would I, but that's not the issue.

MR. POPE: Okay, but other than say six and nine and part of number one, I could say yes to all of them.

CHAIRMAN COLVIN: Okay. Are there any candidates for other than yes for two? Okay, let's move to question now numbered three, develop options that distinguish between management targets and thresholds/limits?

Again, Larry's presentation clearly recommended this. Now, I ask the same question. Is there an opinion other than yes? Seeing none, we'll move on to number four, develop options assuming or requiring management measures; e.g. seasonal closures, area closures, and harvest quotas -- and I want to emphasize those are examples. That was in an e.g. -- in addition to those currently used in the fishery; i.e. gauge size, V-Notching, and effort limitation? Go ahead, Gil.

MR. POPE: I'm sorry. Harvest quotas has always
been a thing that has always baffled me as to why that has never been explored further.

CHAIRMAN COLVIN: Because we love it so much with fluke, and that's why I'm emphasizing that those are examples. Is there any opinion other than yes for number four? Pete.

MR. JENSEN: I'm not going to answer your question directly. I don't understand number four. Can they give me an example of what would come out of that analysis?

CHAIRMAN COLVIN: Can you do that?

MR. JENSEN: If you did number four, give me an example of what would come out of that?

MR. LAPOINTE: I can answer that for the state of Maine. People have asked how long a temporal closure would need to be to reduce F and the answers are pretty long. But just to put it in that context, how long would a closure need to be so that you don't get into the whole recruitment issue that we've discussed in other species?

CHAIRMAN COLVIN: And I know, Pete, that there were management measures recommended early on by some of the LCMT's that could not be evaluated; and I think if the board provides this kind of guidance, then we will continue to work towards developing the capability to evaluate them. If we don't, we probably will stop that. Ernie.

MR. BECKWITH: Yes, the way that I see this question is do you want to limit ourselves to management options we currently have? Do we want to consider other things and, obviously, we should have any tool that we need on the table.

CHAIRMAN COLVIN: Any opinion other than what Ernie just expressed? Okay, I think we have a consensus on yes on that one. Move on to number five, develop options and account for response time of management measures.

This one might be a little bit more fuzzy because it tends to imply some prospect for conservatism, reflecting time to implement. John, you had your hand up.

MR. NELSON: I had my hand up just to get a definition of it, which I think you've gotten that already. My sense was that if we were going to be under a five-year action time, that, therefore, the suggestions that would come to us would have to be more draconian than if we were within a year of implementing measures that were recommended to us. Then they would be less draconian or a more measured type of approach. Is that what was intended by this?

MR. JACOBSON: Yes.

MR. NELSON: Okay. We may at some time define, when we get measures back from a technical committee, when we would have to implement those so that that gives them that time line.

CHAIRMAN COLVIN: Ernie.

MR. BECKWITH: Yes, I'm not sure what this means, and maybe Larry can help us. I can interpret this two ways. One, is it the response time for the states to get the management measures in place or is it the response time of that management measure to see if it's working and how it's working?

CHAIRMAN COLVIN: Good question.

MR. JACOBSON: Probably aimed more towards the former and with no particular mention of the state or the feds or anyone else. I think that -- like I said, if we had this to do again, we might do it a little differently, but we're asking you if you are on board with the notion that long response times would probably push you to more conservative, in the traditional sense, reference points. I think you summarized it pretty well.

CHAIRMAN COLVIN: One way of
prospectively handling this is to incorporate in the actions taken here some kind of an overarching description of ultimate reference point decisionmaking, the concept that we're dealing with here and articulate to the managers and those that control the managers, that we have a choice. We either act expeditiously or we recognize that there is an increase to the risk and prospectively an increased degree of conservatism in the ultimate reference point decision. It may not need to go beyond that.

It may not need to be an answer to the reference point working group and the technical committee. It may need to be direction to ourselves and our legislatures is what I'm saying, and I'm not sure how you want to get at that. Bruce.

MR. FREEMAN: Thank you. It would seem to me, Gordon, based on our experience and the problems that we had at other plans, for example, the striped bass -- we're changing these yearly without any information of what it meant -- that we'd probably want to look at no less than a two-year time frame so far as practical management, just based on what would be required, in that a number of states have to do it by legislation and you're talking a year minimum.

CHAIRMAN COLVIN: Maybe forever.

MR. FREEMAN: Maybe more, but I think realistically to give some time frame and some general idea. I mean, to act more quickly, unless it's a dire emergency, doesn't seem like it's going to occur.

CHAIRMAN COLVIN: George.

MR. LAPOINTE: That was my point exactly.

CHAIRMAN COLVIN: Bill Adler.

MR. ADLER: Yes, I think that this was more geared towards the technical committee trying to take into account how long would a management measure take to actually do something as opposed to asking the technical committee how long a state is going to take to do it because they don't know. Every state is different, but it doesn't matter, the idea, the concept of developing this thing, I think is worth doing.

CHAIRMAN COLVIN: There's a couple of different responses that are suggested by the comments that I've heard. One suggested response -- and I'll try to stick together something I heard from Bill and Bruce -- is that we could advise the technical committee, in developing their reference points, to assume a latent period of up to two years, in which time it would take all the states to come on board with something.

I think that might be something that could be built into this. I'm seeing a lot of heads nodding on that one. The second option is to answer the question no and to indicate that we would not be looking for additional conservatism to be built into the reference points, but rather some kind of an at-risk statement to be put in the overall decision document so there's an understanding of the risk that we're exposed to should we not act very expeditiously.

Right now, it sounded like, just looking around the room or it looked like looking around the room, the first of those two options was kind of where the people felt comfortable with advice, so we will go with that option, to indicate that a period of up to two years may be needed. I'll ask Larry and Carl if you think that's helpful?

MR. JACOBSON: A minimum of two years or up to two years?

CHAIRMAN COLVIN: I think what I was hearing was up to. Ernie, did you want to --

MR. BECKWITH: Yes, I guess that troubles me somewhat. I think in virtually every plan that we have here, we can act on an annual basis and it appears -- and please speak up if you can't do it, but most states have the ability to implement
management measures within a twelve-month time period. Perhaps, is lobster different for some states then other species we manage?

CHAIRMAN COLVIN: Lobsters are somewhat tougher, and I can rattle off right away four states that will have the essential involvement of their legislature in any decisionmaking: Maine, New York, New Jersey, and Massachusetts, particularly if the gauges are involved in Massachusetts.

So, that's a given. It's a little different than it is for almost all the fish, and that's why I thought Bruce's two-year time frame -- and it would be up to two years, I think, is one that was prospectively useful. George.

MR. LAPOINTE: And it could be considerably longer if it's more controversial.

CHAIRMAN COLVIN: As I said, up to forever.

MR. LAPOINTE: Right, up to forever. In Maine, because it is legislative, say we approve something now. I would submit that as a legislative package to the governor in September. It would be submitted as legislation next year.

If things were really good, if things were really good, it would be a year. If it involved things that the legislature wasn't comfortable with, some of these newer options, there would be a learning period of going through our zones and going to public meeting and two years would be a minimum.

CHAIRMAN COLVIN: John.

MR. NELSON: Gordon, I guess the advice back to the technical committee would be we are looking at, potentially, a two-year scenario to implement. I wonder if they could also provide to us, depending on what the option is, the penalty or more conservative measure that had to implemented if it was delayed by various states so that they would know what they were aiming for if they were three or four years out.

CHAIRMAN COLVIN: Well, there's another way of looking at it, too, and I agree with you. I think another way of looking at this issue is that if we're operating under the assumption that the average time to implement is around two years, say, because of the legislative issues, one of the other things that might be very helpful for us to know -- I think it would be extremely helpful for board members to know is what would the difference be if we were able to implement in the very near term.

Because, I should think that those four state legislatures, for example, that I just mentioned, would be very interested in understanding the distinction between the degree of conservatism of management that goes with one versus the other.

And they might be willing, within limits, to authorize some more expeditious action on the part of the management agencies under those scenarios if we had that information to share with them.

So, perhaps, let me try this one out; that the consensus advice for now is that we're looking at an average implementation time of around two years, but we are very interested in understanding the penalty that we might pay in terms of increased conservatism if it takes longer and how much less conservative it might be if we can assume that we can implement much more quickly, and that will help us in the long run get to a decision level using the state legislatures and executive agencies back home.

Is that helpful guys? Is that acceptable to the board? Then let's move on. My personal favorite -- we're at number six, correct -- develop options that require substantial investments and new data collection programs.

Now, I have a question and my question is this. It's not necessarily clear to me what a substantial additional or a new investment might consist of above and beyond what we've already discussed.
I think what we've already discussed boils down pretty much to supplementing existing work with the creation of the lobster database that's been under discussion by the technical committee and my question is are you -- in asking this question, are you assuming that we are going to put the basic database in place and that this goes beyond that; or, is this inclusive of the work we need for that general database effort?

MR. JACOBSON: May I answer? I think we're talking about are you interested in supporting additional stock assessment work at increased frequency? Are you interested in options, for example, that seem to require estimates of F and abundance at annual or bi-annual or triennial intervals, or are you basically able to provide only the level of assessment and monitoring work and data that you're doing now? I mean, are we talking about a status quo data and analytical work environment?

CHAIRMAN COLVIN: Bill.

MR. ADLER: I'm not sure how that differs from number nine. I certainly am very much in favor of number nine here. Let's say I think I want a stock assessment every four years, and I also would like to have an update, some type of feeded into this, an updated revised stock assessment at a much lower level every year. That's what I'd like to see. Now, does that jump back to number six?

MR. WILSON: I interpreted number six as being if you choose to go a certain course using certain reference points or overfishing definitions, they may require certain levels of data analysis, new surveys, or something like that.

MR. ADLER: Okay, sure, I'd love it. I'd love all of it and I just hesitate on that one because I guess substantial investments is what scared me here because I don't know where you are with that, but certainly, of course, the more information the better, because in number seven, I'm going to take issue with something there, but in number six here and number nine, we're talking about better information.

In order to make these decisions, we need better information and anywhere we can get better information, the better. So, that's why I'm all supportive of just better information.

MR. JACOBSON: The question is not whether you would support it in principle. The question is whether you support it fiscally.

MR. ADLER: How much? Tell me.

MR. JACOBSON: It's difficult for me to do, but I would say substantial means on the order of 25 percent, 50 percent, or more.

CHAIRMAN COLVIN: George.

MR. LAPOINTE: Then the answer is probably going to be no because, I mean, if you look at our state legislatures and our state budgets, we're entering lean times and that's going to be a difficult commitment.

I know in Maine, we're struggling to get to that 20 percent so we can answer some of the questions we have now, and so you're asking to go additionally beyond that.

It strikes me that for those options that are data intensive, that should be part of the discussion on different thresholds. If you're going to propose a threshold that requires a data collection effort we can't do, we should know that before we decide on that threshold.

It strikes me as well in the interplay between question six and nine -- if I might for a minute, Mr. Chairman -- it would be interesting for the technical committee to ponder, and us, how efficiently our last assessment was done, recognizing it was directed by somebody on my staff. And if we do them more frequently, is there a way to be more efficient in that process?
CHAIRMAN COLVIN: Yes, well, that's a can of worms. To try to boil this down, looking between six and nine, nine, to me, means are we going to do assessments more frequently than we've doing in the past, and remember that the ASMFC standard is five years, five-year intervals.

Whereas, number six, to me, means are we going to collect new data that we haven't collected before and pay the price for that, you know, come up with the money to pay for that; and recognizing that that new data would be presumably used in these more frequent assessments, should the answer to number nine be yes?

I'm going to ask Heather for help with this. I believe that Amendment 3 itself makes some commitment in description of the nature of data collection and analysis that needs to be done that is inclusive of stuff we're not yet doing and didn't yet have available for the last stock assessment, which boils to ultimately what I was getting at before, which is getting the lobster database, as it's been designed, in place.

And I know there's some feeling out there that it doesn't make any sense to do a new assessment until that's happened. So, my own perspective on this is that we've already made some commitment to increase our investment, and I would sort of agree with George that beyond that commitment, which is already going to be a stretch, I'm not sure that I am comfortable saying, yes, sure, assume we're going to be able to come up with money to do new trawl surveys or new larval surveys that we're not now doing or any other kind of additional survey work that's not presently budgeted for.

I'm not sure where the money would come from, so that's kind of a perspective. I had Gil and then I'll go right down the row.

MR. POPE: Thank you. If I understand what Carl is saying here, it's that with number six, the more times we say yes on these things, the more expensive it's going to get, so how committed we're going to be to doing most of these.

In other words, you're saying that if we do these -- that should have really been at the end -- and if you agree to most of this, will you also agree to pay for it? Is that basically what you're trying to say?

MR. WILSON: Mark was talking in my ear a little bit before and I think if you lead down certain management strategies, maybe quotas, that's going to require a certain amount of capability that may not be existing right now. I'd say seasonal closures or something like that.

CHAIRMAN COLVIN: Pete.

MR. JENSEN: If I were giving advice to the technical committee, I would reword this and say do not restrict yourself to options that deal only with the currently available data; and in cases where you need new data, please give us your best estimate of what it's going to cost to get that data. I think that would give them clear guidance as to where to go.

CHAIRMAN COLVIN: That's a very concrete suggestion. How do other folks feel about it? There's a lot of heads nodding. Thank you, Pete. I think you may have pulled us out of this mire. Bruce.

MR. FREEMAN: My question would be to the technical group, is that direction helpful to you?

MR. JACOBSON: It's helpful if you really are prepared to do anything new. For example, the larval settlement question, are you -- but be careful, you give us too much to do, we may not be able to do it.

Don't give us a response that causes us to do work that won't pay off. For example, would you be interested in definitions of overfishing that involve the settlement of the young larval lobsters along the coast of Massachusetts, or in general, everywhere, then that's a reasonable kind of
information to include in a harvest policy and the definition of overfishing, perhaps.

But perhaps it's so far out of the ballpark that it's not even worth bothering with in practical terms. We're not asking for things right here. We're kind of asking you to take away things if you're not really willing to give them to us.

CHAIRMAN COLVIN: Well, I think Pete's suggestion is a first step towards getting us there, and I think that's what it has to be at this point and we need more information before we're going to be able to nail --

MR. WILSON: You want a price tag.

CHAIRMAN COLVIN: Yes, why not?

MR. JENSEN: Sure, to a certain degree of reasonableness. If you came back and said we can tell you exactly what to do if you'll give us the money to census every lobster out there, we would expect you not to bring us those kinds of unreasonable things.

CHAIRMAN COLVIN: Jim.

MR. JAMES E. FAIR, JR.: I think all the states have made a good faith effort to standardize the collection of data, and I think the thing that's been holding up the assessments has been compiling and analyzing it and getting into a format that they can use for assessments, and I think that that gets right back to the centralized database.

I think that's right now the most important thing we can do to speed up the whole assessment process, and I think the technical committee should also be asking us, and in some ways I think it behooves them to tell us what they need. If there is some critical piece of evidence that they're not collecting right now, it would be helpful if we knew that.

CHAIRMAN COLVIN: Are we at a consensus on Pete's suggestion? Is there a different viewpoint? I think we are and I thank you. Let's move on then to Item Number 7, develop overfishing definitions based on concrete decision rules, a.k.a. control rules.

I'm not sure that we're not almost there by virtue of the yeses we previously gave, but I guess I'll ask that question. Are we and is there a negative opinion on this particular one? Bill.

MR. ADLER: My only negative opinion is the word "concrete", for those of you that know the concrete versus jello scenario. The idea, of course, is trying to get the information on where we are with the stock needs to be more concrete before we can make concrete decisions, in my estimation, so it's only my aversion to the word "concrete". Thank you.

CHAIRMAN COLVIN: Is there an opinion other than yes with respect to the answer to this question using the words "control rule" rather than "concrete rule"? I don't see any. Let's assume that the answer is yes.

Question number eight, develop opinions that could potentially be applied for one stock independently in different areas. This is one of those ones where I really start to see the cash register going ka-ching, you know, and I'm wondering how folks feel about this one?

Certainly, Ernie, I guess we could identify Long Island Sound as an example of the applicability of a yes answer to this, and there has certainly been a desire for that kind of management in the Long Island Sound, kind of sub-area of the south of Cape Cod assessment area. I don't know that you have an opinion.

MR. BECKWITH: Yes, I'm not really sure what this is saying here. I think the issue that I see is that should there be different thresholds and targets for different areas, but I think in terms of options, each of us has options to meet whatever management goal we have. You know, you have a whole host of tools to use, so I'm not really sure
what this question is asking.

CHAIRMAN COLVIN: Well, let me ask this question. Would one way of asking the question be that, you know, we have three stock assessment areas. One of them is the whole area south of Cape Cod, the inshore area, and would a yes answer here mean that potentially there would be different reference points in Long Island Sound or offshore Rhode Island, the area up around Cape Cod?

I would think that, yes, that would mean that we could have different reference points in all of those areas. Is that where we want to go, and that implies lots of things for both management and data collection and analysis.

Right now, we're not doing this. Right now we have an egg production rebuilding schedule to F-10 for each of three stock assessment units, correct? This would enable us to break that down within those units, as I understand it. Do we want to go there? Does anybody want to argue that we should go there? George.

MR. LAPOINTE: A question to the technical folks. I mean, it sounds easy because it gives us options and the commissioner's dream is, of course, we go to different areas and F-10 isn't the standard for my area, so it makes it easier, but does that make a speck of biological sense?

MR. WILSON: I think preserving the stock structure would be -- if your reference points are different, you could still get into the same end by taking different management actions. I don't know if that answers that, George, in that you could have different management areas within the same stock area.

MR. LAPOINTE: Which we already have.

MR. WILSON: Right, but you could have different reference points and take different, say, quota management in area three and not going to a biomass reference point as opposed to an F-based biomass in another area or something like that.

MR. LAPOINTE: If I may, Mr. Chairman. I mean, again, the guy looking for options in me says, yes, but the guy who has sat now for two and half years in my current position and about three years in my former position trying to wrestle with this issue, we're providing ourselves with so many options that they're hard to work through and it strikes me that -- and that's not only clear to me, but clear to the people in Maine who are trying to pay attention to what we're doing, and the idea of providing more options, although conceptually appealing, in follow through doesn't make sense to me at this point.

CHAIRMAN COLVIN: So let me reverse the question this time. At this point, is there an opinion other than no in response to this question? Bruce.

MR. FREEMAN: It's a difficult one, but I would submit that based upon the information we have now, there are areas where we have very little information covering very large geographical areas and areas we have good information.

At this time, I would agree with the no, but I think as times develop and we do get that information -- I don't think it's specifically the area down in the middle Atlantic, where we essentially have no information -- the biological information is driving the entire analysis down to North Carolina -- that sometime in the future, we may want to decide differently, but at the present time I don't think we have sufficient information.

CHAIRMAN COLVIN: And I would agree, Bruce, and here's another thing for what it's worth. It seems to me that you could also envision a different resolution of a question like that one, which is the prospective addition of a new stock assessment unit.

MR. FREEMAN: Right, yes.

CHAIRMAN COLVIN: Okay, it looks like we're
at consensus on no on that one. Number nine, develop options that involve stock assessment updates more frequently than the current interval.

Again, the current ASMFC standard is five years or less and we've been at a four-year interval since 1996. The next one now is tentatively scheduled for 2002, but I think none of us really expects that to happen on that schedule, right, Heather?

MS. STIRRATT: Just a point of clarification on the schedule for the ASMFC. When Gordon mentions the five years, that's the external peer review five-year cyclical type event that we all go through.

There is the option -- and this is done through many of our other fishery management plans -- for there to be an internal stock assessment update done on an annual basis.

And as you may recall from the last board meeting in February, I asked this very body, you know, what do you feel comfortable with because the technical committee, when I posed this question to them, said they would prefer a one-year annual update.

As you've all heard here today, it's very important that we get started with this database so that we can, in fact, do these in a more timely fashion. That is the intent, as I understand it, is that we will be doing these in a more timely fashion.

So, unless something has changed and I'm unaware of it, this question is that we will be doing things more frequently. The answer to it is that we will be.

CHAIRMAN COLVIN: Bill.

MR. ADLER: That's good because one of the things we're hearing right now and one of the roadblocks we run up against in our management, which is right now happening, is the fact that the latest stock assessment is old news, let's wait for the next one.

And we try to explain why it takes that long and it comes out and it's already old news and they don't want to go by it. It's too old and we explain why. But I think that if you were able to have some type of that annual mini-revision thing, which I think, Heather, that's what you were talking about and I've heard Carl talk about that, that would help in that department by having this little, not a full-blown stock assessment, but an update because then we could dispel that particular part, which seems to be a burr every time we try to go through this process of management with a fishery. So, that would help.

MR. WILSON: It's essentially a core number of analyses indicators that we'd look at each year as stock status.

MR. ADLER: Yes, so you don't use the word or the time. Well, this is the latest, it was 19 hundred and whatever and they go, stop right there. We want last year's or whatever. So, if you could say, "Well, this has been updated as of last year". "Oh, all right, now we make progress". Thank you.

CHAIRMAN COLVIN: So, where are we?

(Responses of "yes.")

CHAIRMAN COLVIN: Yes? Okay. Back to number one. All right, we'll put it that way. George.

MR. LAPOINTE: Just for a moment, we've easily answered these questions yes and no and gone through them, and I think in all of our minds they've raised about 17 questions for each one we've answered and we all need to go back.

I need to meet with my technical people and other people in the state to hash through the questions and look at some of the implications of the questions posed by this document.

CHAIRMAN COLVIN: Well, I'm not sure what you just said. Are you saying that --
MR. LAPOINTE: Well, I mean, I'm saying the same thing we've all said. We said yes, when we answered the questions, but we reserve the right to change things later.

CHAIRMAN COLVIN: Well, sooner or later. Later, I'm assuming, means in due time following a longer-term process of iteration and receipt of information back from the technical committee and the subcommittee.

Are you suggesting sooner, which is that you want to discuss this right now with your staff and revisit it at the next meeting? That's what I'm trying to understand.

MR. LAPOINTE: Well, then, I guess it would be later.

CHAIRMAN COLVIN: Bill. I said Bill, but that's okay. I'll get Gil next.

MR. POPE: I just have one quick question on number one where it says levels of potential economic and biological risk. The technical committee wants to do economic studies or are you trying to put the risk of the two versus one another? In other words, I don't know if the technical committee -- are you getting into the economic risks as well?

MR. JACOBSON: Probably only insofar as they are measured by catch.

MR. WILSON: I think the yield was what we talked about earlier, and that there are yield consequences for management actions as well as biological consequences.

MR. POPE COLVIN: Economic as far as money or just --

MR. JACOBSON: Catch.

CHAIRMAN COLVIN: Bill.

MR. ADLER: I thought it was our idea that we were going to give this now to the technical committee and say, yes, we'd like you to look into these things, to give you something to do between now and the -- I don't know, next meeting. Can you have all these answers for us by the next meeting? I don't know.

CHAIRMAN COLVIN: I'll answer that. No. I think there's quite a bit of work here implied by our responses, but I'll remind you that we haven't responded on number one.

And I think earlier, there was initially a suggestion that a very wide range of risk would be appropriate and then a couple of members spoke up and said maybe not.

Maybe there are issues on the extremes of the risk that we're really not interested in having the technical committee waste their time on, and it does seem that the economic and biological risks, as characterized in the question, are not really different.

We're really talking about the prospect of a level of risk of significant foregone yield that would be a result of a significant reduction in available, harvestable biomass, it sounds like.

So, I would ask then, is there a way members of the board might characterize a level of biological - - a biological effect that we would just not want to see? Can somebody suggest that?

I mean, Ernie, I think it was your idea that there may be a place we don't want to go and it would probably be helpful to let these folks know that, if we can characterize that for them. Thoughts? George.

MR. LAPOINTE: I was going to wait and do this later. The biological risk in terms of biomass depends on the target; and if you use the last three years -- the question depends on what time series you base that biomass target on.
If you use the last 100 years or the last 20 or the last 10 or the last 5, it will have obvious, I mean, both management and economic impacts for both the risk of, as you say, having foregone economic activity, or waiting for the stock to go down to some very small level and, I mean, having direct economic impact on coastal communities.

You look at what's the hundred year average for lobster, 25 or 30 million pounds? In the last 50, it's about the same. The last 20 is higher and the last 10 is higher and the last 5 is much higher, and it strikes me that we'd have to answer that question or have some discussion of that question to answer the economic risk question as well. I'm getting blank stares. I must be sleep deprived.

MR. WILSON: I think that goes, George, to that question or the statement that Larry made earlier is, you know, what's the risk of going up 10 percent and what's the risk of going down 10 percent as far as biomass, abundance, whatever? There's biological risk and there's economic risk.

CHAIRMAN COLVIN: Pat.

MR. WHITE: Well, just on the same point, I still am confused because we were deemed overfished in 1992, if I'm not mistaken, when our landings in Maine, anyway, were 28 million pounds, and now we're still overfished and we're at 60 million pounds with a larger biomass. Where's our reference point?

MR. JACOBSON: I think you're falling victim to a poorly worded question on our part. I think about all I can do to help you here is maybe suggest that you tell us what it is you want to avoid, what you view as risk, if you can.

If you can't, don't. And I might ask you in a second part, would you be willing to reduce fishing mortality rates or would you be willing to undertake a more conservative management at lower biomass levels that is done under the Precautionary Principle, for example?

That might be a more concrete way of asking that question. Would you forego yield in the near term to prevent loss of yield in the long term? Don't bother. That's too abstract.

I guess my questions are is there anything that you'd like to avoid, any serious risk that you perceive that you'd like to avoid; and two, would you be willing to make the management tools more conservative as the biomass declines? Is that acceptable?

CHAIRMAN COLVIN: Ernie.

MR. BECKWITH: Yes, I think one of the problems we have here is we haven't defined what our goals are for this fishery. Is it maximizing -- listening to Dick this morning, is it maximizing the economic efficiency in a fishery? Is it maximizing pounds?

I think before we can answer some of those questions that Larry is asking us here, we've really got to give some more thought to what we want to do in this fishery.

CHAIRMAN COLVIN: Lance.

DR. STEWART: Yes, looking at exactly what George is talking about, the population trends over the last 20 years, and recognizing that this fishery is so unique in that it's got a standard of catchability, the trap, that's universal.

It's got a catching propensity that's somewhat standard in the lobster's ability to go into the traps. The food that's addressed to the fishery, we've all heard about. It seems to me -- and the technical committee could really just get into this -- that one of the basic common denominators of trends is catch per unit effort.

I mean, it's so simple and so basic, but it's predictive in year class. It takes in the economics. It takes in the biology. It takes in regional differences and seasonality.
If we had some very simple statistic of CPUE -- this fishery is not as diverse as many other trawl fisheries in terms of search and capture, elusiveness.

It is, in my mind, one of the most predictable and stable of the species that we deal with, so these are the things I see us back calculating from, estimating biomass and estimating fishing mortality rates when you can get it in the most simple form.

So, again, that's in the form of a question for the technical committee, could we go back to the common denominators and see if you get predictive indicators of how the fishery has been trending over the last 20 years, how its response rate goes from season to season, and regionality; and, you know, with some special little low cost measures such as using no escape traps as indicators of total population year class, you know, in special fishery measures.

So, you don't have to go out and do larval assessments and have ship time and everything else. You can bring your fishery independent data and your fishery dependant data much closer together with just basic CPUE.

MR. WILSON: Catch per unit effort is a hard thing in the lobster fishery to say what is the defining thing. I know there was lots of discussion at the last assessment about this.

DR. STEWART: One example I think that might be good -- and I don't know whether the technical committee has done it, but the North Cape oil spill deliberations. All the state-by-state analysis was handled somewhat in the adjudication process under that premise, and fairly effectively, looking at a five-year range of population response between Massachusetts, Connecticut, and Rhode Island.

And there are a lot of other consultant companies or power companies that have datasets that complement what our natural resource department units have. So, there's a lot of checks and balances in existing data. So, again, it's just a suggestion.

CHAIRMAN COLVIN: Harry.

MR. HARRY MEARS: I agree with this particular question. I suppose it's difficult to respond to, but in terms of responding to Larry's question of what we should like to avoid, one response I would have to that question would be that we currently have a plan, by virtue of Addendum 2 to Amendment 3, that establishes a goal to reach at least a threshold to end overfishing by the year 2008, and that threshold is currently defined F 10.

Certainly, I would like to avoid options that would prevent us from achieving that goal, so that's one response I would have.

CHAIRMAN COLVIN: You know, it's also instructive to read your plan, and we do have some management goals stated that address some of these issues.

And here's one that may or may not help focus; protect or increase or maintain, as appropriate, the brood stock abundance at levels which would minimize risk of stock depletion and recruitment failure.

Now, that's in Amendment 3 and it seems to me that that speaks to the question that we do not want to see a high level of risk of reduced abundance that might lead to recruitment failure. And I think that's how I read that objective, at any rate, and I don't know if that itself is helpful.

Perhaps it is. It says minimize risk of stock depletion and recruitment failure. So, I'm assuming that since that's in the plan, we all agree that we would want to minimize that risk and that our answer with respect to -- a part of our answer at least with respect to question one is, no, we do not want to see a level of risk, a high level of risk with respect to stock depletion leading to recruitment failure.
Is that something that everybody can kind of sign on to? It looks like it is. Good. Now, is there anything else that would be helpful here? Go ahead, Mark.

MR. GIBSON: I've been thinking about this since you first posed the question when it was question one, and I think you just took care of one part of it in terms of how much risk. I was thinking more specifically in how much chance I'd accept the 20 percent probability of stock collapse in the next 10 years.

That would be about all I'd be willing to buy off on it. If there was a one-in-five chance that in the next 10 years the stock could collapse, I wouldn't want options that would entertain any more risk than that.

Now, I think you need something on the other end that deals with how much hurt are you willing to accept in the year of falling implementation; that is, how much of a decline in landings, which is the result of your regulations, would you accept?

How much dislocation in the fishery would you accept in the first year or first several years of implementation? It seems that I wouldn't be willing to accept anything that had any more than like a 20 percent reduction in landings in the year of implementation.

I don't know if that's getting too restrictive for what they're looking for, but you've got to get both tail ends of it. How conservative do you want to be or are you willing to be in terms of what it costs right up front and how much risk are you willing to entertain over, say, a median term 10-year planning horizon?

CHAIRMAN COLVIN: Well, there's a concrete suggestion and I think that's very helpful. How do folks feel about that suggestion from Mark or those two suggestions, the way of stating the risk of collapse and the new suggestion on imposition of reduction.

Is that helpful, Carl, coming from the chairman of the subcommittee? Is there a sense that we ought to perhaps tentatively or provisionally accept those suggestions, recognizing that that's one that we haven't thought about and we know that this is a difficult question.

As I was saying, this has been the toughest question. I think the board is prepared to provisionally accept Mark's suggestions, but this is one in particular that I think we want to give some short-term thought to, and perhaps we may well want to revisit this, at least briefly, at our next opportunity.

But, Mark, I appreciate your putting those suggestions out there because I think they helped us a great deal to move forward on it. Is there any further discussion of item one here, question one? George.

MR. LAPOINTE: My only discomfort with the question is, again, let's use the 60 million pound current harvest levels and given the fact that a lot of the increase in biomass has been environmentally driven, if it declines to 40 million pounds because of environmental conditions, is that a stock collapse?

I mean, that's going to be a fundamental question, and Mark asked it earlier, what can we do about that in terms of our management program?

CHAIRMAN COLVIN: One of the difficulties I think we're all having is that it's very hard for us to separate ourselves in this discussion from answering these questions, knowing where they'll go, but we have to.

It's very difficult to separate ourselves from a question like the one that George just asked from the subsequent question that he also asked, so what does it mean? But, I think we have to right now. We have to separate those issues.

We're not supposed to know what it means at this
point in time. We're supposed to start by trying to come up with reference points that reflect what we want, what we expect, what the management program is trying to achieve, and that needs to be separated from the subsequent question of so what do you do if you're not achieving it and will it work, which is where you're headed, George.

You know, all afternoon we've been starting to move down that road and we can't go there today, I don't think, because we don't know.

MR. LAPointe: I guess that's part of it, but the other part is just understanding the positions we're all in and what we've seen in lobster and other species in the last little while.

We can found ourselves in a quandary, like we found ourselves with the dogfish plan a number of years ago, where we said, gee, we want to do one, but we can't right now, and we advanced this process and then some of our partners in conservation started beating us up for doing what we said we couldn't do in the first place. What you're saying is we're going to enter that avenue regardless and we need to be prepared for that.

CHAIRMAN COLVIN: I think so and we need to be prepared to revisit all of this stuff continuously forever, like I said before. This is not going to go away, none of it.

There is a certain element of the unknown that we get into when we render advice of this nature and many of us -- and let me make it clear to Mark and Larry and Carl, many of us are apprehensive about crossing this threshold, not necessarily because just of the uncertainty about where it might take us, but also, quite frankly, about the associated issue of if we find out that it takes us someplace that's very uncomfortable, it may or may not be as easy as we think to go back and revisit and I think that's part of what George is getting at, and I understand it absolutely. It's a concern that we have and one that we'll have to come to grips with. Gil.

MR. POPE: Thank you, Mr. Chairman. I just was talking with Carl and I reworded the question, and he wanted me to relay it to you as possibly trying to get it on the record here as number one and changed the wording around a little bit to say develop a range of options, or a few options, and show the relative levels of potential economic and biological risk and the long and short term of each.

That's how I reworded it to make it easy so that you can get a yes on that; to predict, is the way he put it.

CHAIRMAN COLVIN: Okay, and I think we have a response based on the suggestion that Mark made that we're accepting today as a provisional response and the record will so indicate. Okay, any further on the policy questions? I hope not because I know we've got to move. Pat.

MR. AUGUSTINE: Mr. Chairman, the question is do the members here of the technical committee feel comfortable with what we've just accomplished and what we've just committed to? Are the marching orders is clear enough now? Do you know where we want to go or do we have to be more specific?

CHAIRMAN COLVIN: Good question.

MR. JACOBSON: I think I have a much better understanding of where you are than I did. So, we are better off, but it still falls to you to write our terms of reference and that is critical.

Terms of reference will help Mark so much in getting you a useful product, getting it in a quick, timely and efficient manner, so I urge you, Mr. Chairman, to think about how you want to take care of the terms of reference.

I am prepared to read them and try to facilitate your discussion. The draft strawman we have is probably not perfect by any means. So, what do you want to do with them?

CHAIRMAN COLVIN: Let me ask this question. Are the straw terms of reference inconsistent in
any respect with the advice just given?

MR. JACOBSON: I think that many of them are consistent, but it really is your responsibility to tell us what to do and you should do it with adequate consideration. This is very important because we will do literally, almost literally, what you ask us to do.

CHAIRMAN COLVIN: Mark, what's your sense of it?

MR. GIBSON: They're generally consistent with the insight that the board has given. This might be something -- given what Larry has just said, and I agree with him, these will end up being the marching orders that we will conform our analyses pretty closely. I'm hesitant to see the board just endorse these off the top of their head or pencil or append a couple of more to them at this point. I think they might need a little more thought on the part of the board.

I don't know what the best vehicle is to do that and whether we want to wait and let this go until the next board meeting and work with staff people at home and come back and endorse another set of them.

But as was pointed out, we will adhere to these pretty closely once we start doing work on reference points and harvest policy considerations.

CHAIRMAN COLVIN: My sense, and I think that Heather agrees with me, is that, generally speaking, these terms of reference are consistent with the advice just rendered.

We don't see any inconsistencies, and I need to look at the clock and the things we have yet to do this afternoon, at least one of which requires some time and energy and mental attention of the board, and I don't know that we have, under those circumstances, the opportunity to give very substantive and detailed review to these terms of reference.

On the other hand, given that they are not, in our view, inconsistent with the advice rendered, let me suggest that it's probably appropriate, again, to provisionally accept them with the understanding that we will revisit these terms of reference at our next meeting and entertain any suggestions that are brought forward at that time for revisions or additions from members and/or from the technical committee and the subcommittee. Larry.

MR. JACOBSON: I think that that is a fine suggestion. We recognize your time shortages. If you adopt them preliminary, please think about them and finalize them at your first opportunity.

The only piece of them that I see that might be inconsistent is the second sentence of number three, which you might want to scratch for the moment for the sake of time.

Because, you instructed us that you may be prepared to undertake things that are so radical for lobsters as quotas if it was required, so perhaps you could preliminary accept them all with the exception of the second sentence in three and promise to think about it and finalize it at your first opportunity.

CHAIRMAN COLVIN: Thank you, Larry. I actually had read that sentence as not precluding the possibility of the newer kinds of measures, but requiring that at a minimum, the conventional measures be included, and I think that what could be done is to consider number three as read to -- that second sentence to read this way: Develop options that can be implemented using conventional or additional management measures, with the understanding that we're referring back to the board's yes answer to question number four. Is that agreeable to the board? Bill.

MR. ADLER: I just would like to say that I'm going to ask at the next meeting whether F-10 is correct or whether -- good. Thank you.

CHAIRMAN COLVIN: Okay, I'll be interested to
hear it. Before we leave this issue, is there any other comment? Dick, did you want to make a comment at this point?

MR. DICK ALLEN: Briefly.

CHAIRMAN COLVIN: Can you get on the record over here somewhere, maybe next to Bruce.

MR. ALLEN: I'll submit some comments in writing to explain further what I mean, but it seems to me the emphasis here has been on preventing bad things from happening to the fishery, and the idea of a target might be that you think you can bring about good things for the fishery, and so you ought to keep that in mind, that's it's not just preventing bad things from happening, but some of the targets might actually bring about some benefits to the fishery and get at some of these concerns like that George had about different levels in the fishery.

We may be able to improve on the fishery regardless of which level it happens to be at, and thanks for that opportunity.

CHAIRMAN COLVIN: Thank you, and you know, Dick, I absolutely agree with you and I think that's certainly my intention and expectation that we will be able to address that in that way. That's part of the reason I think we've started down this road. Thank you and I think it was partly at your urging at some distant, fuzzy point in the past. Is there anything further from the technical committee today, Carl?

MR. WILSON: No.

CHAIRMAN COLVIN: At this point, it's like five minutes to 4:00. It's been suggested, and I think it's a good idea to take a very short break. When we come back, we will have about one hour to complete our agenda, so I want to ask folks to come back very quickly.

(Whereupon, a short recess was taken.)

CHAIRMAN COLVIN: Okay, folks, the next agenda item is the Advisory Panel report, so I'm going to turn to David.

MR. DAVID SPENCER: Thank you, Mr. Chairman. In the interest of time, I won't read the whole document. I'll just hit the highlights. We did have an advisory panel meeting on Monday, April 2nd, in Warwick, Rhode Island.

Our first agenda item was the Amendment 4 issue. In short, there was no support for conservation equivalency on the V-notch possession of lobsters. The reasons are written down. I believe they're in your packet. They were also on the disk.

On the second item, the 100/500, the consensus was not to support that as well with some reservation. We had one person who had a reservation about that decision. That was our biggest topic of discussion that day.

There was a lot of discussion and I think it's important to note that all the discussion was with a lot of conviction. It's a very serious issue to the advisors and I can't emphasize that strongly enough.

We had a brief, brief discussion about the arrival of factory trawlers in the New England waters; and in short, we don't have any specific recommendations, but we do reserve the right to bring any problems to the appropriate agency as the situation arises.

The next item we spoke about was the trap tag program, and this also had quite a bit of discussion with it. I will say that with the exception of Maine, there was pretty widespread frustration with the enforcement of the trap tag program.

And actually, it was pointed out that in Section 5.2 of the FMP, that all the states are responsible for the full and effective implementation and enforcement for fishery management plans in areas subject to their jurisdiction.
The advisory panel feels that that's not the case in most states at the present time. They came up with a list of recommendations to possibly alleviate that.

We had a brief discussion about the transferability workshop that the board approved at its last meeting and set up a subcommittee to start the planning for that, which the workshops would take place next year.

The next item that we spoke of was on marine protected areas. It was brought to our attention that it's something that's really had very little discussion, both on the board level and actually none at the advisory panel level.

We felt that it probably could be a major issue in the very near future and did come up with the recommendation that the Commission hold workshops on marine protected areas as a tool for fisheries management. Thank you.

CHAIRMAN COLVIN: Thank you very much. Are there questions? Bruce.

MR. FREEMAN: Could you just elaborate a little bit on the tag enforcement? You indicated that there was discontent or dissatisfaction.

MR. SPENCER: I think there were two things. One was that there seemed to be a lack of enforcement on the water. Most people felt that, I guess to summarize it, that the people that were abiding by the system were being penalized because there were enough people cheating and not getting caught that it concerned them greatly.

There was another sentiment that even at times when there was enforcement, it might have been misguided. One of the recommendations was for industry to meet with law enforcement and try to maybe come up with a better way to do. Obviously, there are money concerns, but those were the two main issues.

MR. FREEMAN: Just to reinforce a point, when we got into this originally and during the public hearings that the Fisheries Service held, at various times the Coast Guard indicated they didn't have the wherewithal to enforce this on the water and many of the states also had that same concern.

From your perspective, you indicate you see ways of improving this system. Could you elaborate on how that could be done?

MR. SPENCER: As an example, one of the recommendations that they came up with was perhaps charging more for a tag and having the excess above and beyond the cost of the tag dedicated to an enforcement fund.

I mean, that's just one of them and I'm not saying that we have all the answers. It was a concern that was brought up and hopefully the start of finding out solutions to the problem.

MR. POPE: Thank you very much. I have a question for you, David. Is this the package that you're referring to, with the names on it?

MR. SPENCER: Yes.

MR. POPE: Of those fifteen names up there, were there any non-trap participants in that advisory panel meeting?

MR. SPENCER: Not to my knowledge.

CHAIRMAN COLVIN: Are there any other questions for David? David, thank you for the summary. I appreciate the way you got through that very quickly and efficiently, but I think very completely and I appreciate it. Next is the law enforcement report. Joe.

COLONEL JOE FESSENDEN: Okay, we had a conference call back on April 18th to discuss the PID for Amendment 4 and most of the states from New Jersey to Maine, in addition to the National Marine Fisheries Service, participated in the conference call.
We came to consensus on Issue 1 and Issue 2 to recommend the Option 1, take no action. Both issues deal with coastwide conservation measures. We believe that by allowing the V-notched lobsters, for example, to be landed in the Outer Cape area, it would open up the possibility of V-notched lobsters coming from Area 1 and Area 3, for example, to be landed in the Outer Cape and the same thing for the non-trap sector.

Certainly, if the 100/500 provision was removed, you could have a situation created in the state of Rhode Island where draggers could work out arrangements with Rhode Island based vessels to do offloads at sea and to use the state of Rhode Island as a landing port for lobsters coming from outside of state waters.

So, we had consensus from the law enforcement people that were on the conference call to recommend to the board not to approve those changes.

And the other issue we had, we talked quite a bit about the lobster trap tag enforcement issue at the committee over the last two days, and other than my state of Maine, we've actually put a considerable amount of resources in the enforcement and we're doing it very well, I believe, but the other states are trying to enforce the trap limit.

As a matter of a fact, the state of New Hampshire is in the process of going to rulemaking to make some changes that would allow permit sanctions and suspension of trap allocations for enforcement purposes.

So, I heard the same thing from Rhode Island and I heard the same thing from the state of New York, so I was actually encouraged by what I heard from the states. With existing resources, they're trying to do the best job they can.

I think most of the states would like to get some extra money so they could put some more extra resources into enforcement. There was some concern expressed by the National Marine Fisheries Service and the Coast Guard, that the Coast Guard basically are not in a position to haul lobster traps.

However, they did submit a short report to me outlining what they are doing and they're trying to enforce the trap limit in the EEZ, but they feel that there are limited resources at best for enforcement and they wanted to pass that onto the board. That's just about it.

CHAIRMAN COLVIN: Are there any questions for Joe? Gil.

MR. POPE: I just have one question about on this report. It says, "In addition, removal of the landing limits provided by non-trap gear to 100/500 could allow the unlawful landing of lobsters in excess of the landing limits now provided by the coastwide rule of 500".

I don't understand that. If it's removed, it will no longer be illegal or unlawful, so I guess I just am reading that wrong or something. I don't know, I just don't agree with that. I think that's a little bit of a weak argument, that's all. Thank you.

CHAIRMAN COLVIN: We'll get there, Gil. Any other questions for Joe? The last two reports each kind of touched on the common issue of concerns about trap tag enforcement and on enforcement issues in the EEZ, and I'm wondering whether the board sees the need for any follow up on these issues because they were pretty emphatically reported on by both committees. No? Okay. Thanks, Joe.

Let me say from the Chair's perspective, Joe, it's encouraging to hear that you did have some discussions with several of the states who are trying to turn the corner on this, and I hope you'll continue to report progress to us along those lines because it's important that we hear it.

It's clearly important that the advisory panel get some feedback on the concern they raised as well;
and if we get to a point where we're not making progress, I think it would be useful for the board to know that as well. Thank you. Onto the PID for Amendment 4. Heather.

MS. STIRRATT: I am going to try to be as brief as possible, so if you all have questions, please let me know. I would hate to be the only staff member this week that did not finish their meeting on time.

Just to review, copies of the PID are available in your briefing materials as well as on the CD-rom. If you do not have a copy of the PID and you wish to have one, there are copies on the front table.

What's being handed out to you right now are basically two documents, the first of which is the public hearing summary, and you also received verbatim copies of all of the written responses which were submitted to staff.

Just so that you know, the public comment period on this document closed on April 22nd, so that is why you did not receive this information in advance. There were seven public hearings that were held: Maine, New Hampshire, Massachusetts, Rhode Island, and New Jersey.

I will cover these comments just briefly given that you haven't received this information today, but for the purposes of this review, I'm going to review to Issue 1 as the prohibition on possession of V-notched females, and that is conservation equivalency as it applies to that issue; and Issue 2, conservation equivalency as it applies to the issue of the non-trap gear limits.

I'll cover the public hearings first. Basically, Maine, both from the state perspective as well as from the public's perspective, speaks with one solid voice in opposition to the consideration of conservation equivalencies for both Issues 1 and 2.

New Hampshire hearings also reflect unanimous opposition to the consideration of conversation equivalencies for both issues. New Jersey hearings offered no position on consideration of conservation equivalencies for Issue 1; however, the attendees of those hearings did not support consideration of conservation equivalencies for non-trap gear limits.

I should add that if there's anything that the state representatives would like to follow up on in this regard, please feel free to do so.

In Rhode Island the hearings offered no position on consideration of conservation equivalency for Issue 1; however, there was support for consideration of conversation equivalencies for Issue 2, which refers specifically to the non-trap gear limits.

Massachusetts public hearings were mixed relative to their positions. Based upon the summary provided from the Massachusetts staff, one could assume that there was a majority supporting conservation equivalency for V-notched possession prohibitions; however, there were only, I believe, four or five in attendance at that meeting. Four spoke in support and one spoke in opposition.

So, if you're concerned about my reflection of that meeting, please feel free to ask Jim Fair.

MR. WHITE: Wasn't one of the representative speaking also representing an entire association?

MS. STIRRATT: I believe so, the Southern Massachusetts Association, but I would defer to Jim if that's incorrect.

MR. FAIR: That is correct, they were representing the South Shore Lobstermen's Association, not the Massachusetts Lobstermen's Association. The other people that spoke in support of the amendment were from the Outer Cape Lobstermen's Association. So, there were two associations represented.

CHAIRMAN COLVIN: Heather.

MS. STIRRATT: Just a few more comments, I
promise, and then we'll move on. Just to cover the written public comments that were received, we received individual comments from nine people. They were submitted mainly by interested parties in the state of Maine, but were also supported by individuals from the states of New Jersey as well as New York.

Seven of the nine written comments were submitted by, as I mentioned, Maine individuals and those comments were completely opposed to consideration of conservation equivalency for both issues.

The comment that was received from the state of New York, actually I should say an interested party in New York, also spoke in opposition to both issues in consideration of conservation equivalency.

The comments that were received from New Jersey were primarily from a recreational scuba diver; and while they were opposed to the conservation equivalency consideration for Issue 1, they supported Issue 2 consideration.

Finally, as I mentioned, if you have any further questions, I'd be happy to answer those. Just to remind you, the LEC did report that they were in opposition to consideration of both issues and would support Option 1 as being their preferred alternative, and that the AP also considered these issues and found to be in opposition to them as well.

The PRT was also requested to comment and to provide the board with some direction as to what they would like to be included in the draft addendum, and their response to that is simply that they are so involved in the issues and in the regard that they developed these documents for your consideration, there really is a conflict of interest and they can offer no recommendation at this time.

CHAIRMAN COLVIN: Thank you, Heather. Are there any questions of Heather with respect to the public comment record? Bruce.

MR. FREEMAN: Thanks, Mr. Chairman. I just wanted to add information relative to New Jersey's public hearing. On the first issue dealing with conservation equivalency for V-notching, the fishermen indicated, the ones that spoke, that they never saw a V-notched lobster.

Their major concern was that they wouldn't be required to V-notch. That was their major concern because they didn't see any value in it. And secondly, so long as they didn't see any V-notched lobsters historically, they really saw no value in addressing the issue.

On the conservation equivalency, on the second issue, there's only two fishermen who spoke on the issue in addition to the letter that Heather spoke about. Both were sea bass fishermen and their major concern was increased gear conflicts between mobile gear and trap gear, and that was their major concern for conservation equivalency. Let me just stop there.

CHAIRMAN COLVIN: Okay, what's now before the board then is action with respect to the question of direction on the matter of the further development of proposed Amendment 4.

We have put out the PID. We have had public hearings on the PID and we have public input. The board needs to now give direction to the staff and the plan development team as to where we go from here. I entertain discussion and/or action recommendations on this issue.

Are we ready to go to the next agenda item? Shall we divide the issues? Is there a recommendation or suggested action with respect to Issue 1? Pat.

MR. WHITE: I'm not sure how the motion should be worded, Mr. Chairman, but I would make a motion that we approve the no action alternative for Item 1 of Amendment 4. Is that how we're going to address it?

CHAIRMAN COLVIN: Let me just address
process for just a second. The board has authorized initiation of the FMP amendment process with respect to two specific issues and two specific issues only.

The board can decide now to go no further on one or both of those issues, in which case I believe that the action would be to simply terminate development of an amendment with respect to Issue 1 or Issue 2.

Alternatively, the board could decide to go forward and develop a full text of an FMP amendment that selected as preferred one of the options under each of Issue 1 and Issue 2 or either of Issue 1 and Issue 2, and take such a draft FMP amendment out to the next round of public review and comment.

So, that's where we are, so what we're looking for specifically, I think, at this time with respect to Issue 1 -- and I'll go right back to Pat -- is, is it the board's pleasure to proceed with the development of an FMP amendment that implements an option to move forward under Issue 1? Pat.

MR. WHITE: I think I hear you asking me to rephrase my motion, so I guess I would move to terminate any further development of Part 1 of Amendment 4, referencing V-notch for the Outer Cape.

MR. DENNIS ABBOTT: Second.


MR. FAIR: I guess since I agreed to develop this amendment originally, partially in answer to the admonition from a federal judge to try to use the process to try to solve our lawsuit dilemma, I guess I should at least give my feelings about it.

I think during the development of this amendment, listening to both sides of the issue, I still have a belief that fishermen -- we've assigned these fishermen the duty of developing a plan that suits their particular area and their particular style of fishing, and in some areas, obviously, there are some unique circumstances that have caused them to believe differently from fishermen in other areas.

However, the fact remains we have carved out an area down there, and we've got seven areas actually that overlap or that comprise three stock units.

It's a very difficult concept for the fishermen to wrap around and I think they're doing their best, but in some cases we have right off the bat tied their hands and taken some of these options off the table.

That is the genesis of the lawsuit. They believe they have a better way to manage the resource in their area, and they want to at least have the option of proposing it and having it discussed by this board. So, with that in mind, I'm still in favor of moving forward with the amendment.

CHAIRMAN COLVIN: Thank you. Is there further discussion? Bruce Freeman.

MR. FREEMAN: Thank you, Mr. Chairman. I would ask the representative from Massachusetts, the issue of enforcement, this is one that if indeed this is to move forward would be one you'd have to deal with, and I'm just curious as to what your enforcement agency has and what approach it's taken relative to if in fact conservation equivalency existed, would it be able to be enforced?

MR. FAIR: I think it would certainly make their job more difficult. I think enforcement would have to be on the water and at the dock. There would be very little enforcement in the dealerships, and this is exactly where we're headed with some of our other management measures, like the gauge increases.

Theoretically, we could end up with four or five of them, well, four let's say, and obviously that's
going to be a similar problem. So, I think that, yes, it's going to make enforcement harder. No, it's not impossible.


MR. ADLER: Yes, I just want to reiterate we already have this to some degree now because we have a five-inch maximum in one area. So, yes, it is difficult, but we do deal with multi-things and we're headed for that again with gauges, I guess.

CHAIRMAN COLVIN: Pat.

MR. WHITE: I respect where Jim is coming from a great deal and I think there are many issues that neighboring areas can do that are respectful of one another, and I just have a real problem with this one because I think there are fishermen that are making a great sacrifice in supporting the V-notched program and notching.

There's no insistence that they have to, but they are respecting it and for a few fishermen to make a living off of that process, I think is what bothers me, and I respect where you're coming from, Jim.

CHAIRMAN COLVIN: Any further discussion on the motion? Before we vote, let me just remind the board for the record that we are voting on whether or not to proceed with the development of a draft FMP that includes any option with respect to conservation equivalency on V-notching.

We are not voting whether or not to adopt such a fishery management plan amendment. Let's take a couple of seconds to caucus before we vote. All states ready to vote? Let's take the question.

All in favor please signify by raising your right hand. I have four in favor. Opposed, same sign, four. Abstentions, three. Null votes. The motion does not carry.

Is there another motion with respect to Issue 1? Jim.

MR. FAIR: Yes, I'd like to move that we continue the development of the amendment on Issue 1.

CHAIRMAN COLVIN: So, the motion is to proceed with the development of an Amendment 4 that includes Issue 1, conservation equivalency of the V-notched provisions. Is there a second to that motion?

MR. POPE: Second.


MR. NELSON: Thank you, Mr. Chairman. Just for clarification, continuing the development of Issue 1 has both the no action, take no further action, so does it have Option 1 and 2 in there for Issue 1?

CHAIRMAN COLVIN: Heather?

MS. STIRRATT: My understanding is that, yes, it does need Option 1 and 2. We always offer the public an option of status quo and we always offer an option for action.

CHAIRMAN COLVIN: Further discussion on the motion? We'll take the question. All in favor, please signify by raising your right hand, six. Opposed, same sign, three. Abstentions, two. Null votes, none. The motion carries.

Anything further on Issue 1? Let me recognize Mark Gibson for Issue 2. It's coming back to him as he requested.

MR. GIBSON: I'd like to make a motion to continue development of Amendment 4 to include Option 2 on Issue 2, which would allow for conservation equivalency for the 100/500 provision.

CHAIRMAN COLVIN: Is there a second to the motion?
MR. FREEMAN: Second.

CHAIRMAN COLVIN: Bruce Freeman. Discussion on the motion? No discussion? Is there a need to caucus? I guess not. Well then, let's take the question. All in favor, please signify by raising your right hand, seven. Opposed, same sign, two. Abstentions; null votes, one. The motion carries.

This constitutes direction to the board, to the staff and the PDT to continue the development of Amendment 4 consistent with the options conveyed in the two prior motions.

Kind of begging the question, Heather, I wonder if you can give some indication to the board about your expectation about when a hearing draft of Amendment 4 may be forthcoming for board review.

MS. STIRRATT: I'm in somewhat of an interesting position in answering for the states of Rhode Island and for Massachusetts. As you may recall, their state personnel has agreed to draft these documents; and as this board has oftentimes commented, the further progress that will be made on Amendment 4 will be made as staff resource time and money and all of those various considerations are made.

So, I can only answer that we will do so as the states of Rhode Island and Massachusetts personnel will allow.

CHAIRMAN COLVIN: That's true, we have laid that burden at the feet of those two states, and I guess what I would ask is that we be kept informed as to progress. Gil.

MR. POPE: So this means we schedule another round of public hearings and get another bunch of letters like this. That's basically where we're headed again?

CHAIRMAN COLVIN: Well, I suppose that's one possible outcome. I would hope that -- quite frankly, speaking personally, I would hope that when we go to the public for comment on the actual draft FMP amendment itself, that the hearings will be better attended and that perhaps we get even an additional volume of public comment than what we received in this last go round. I was personally a little disappointed by the amount of comment that we received. Heather.

MS. STIRRATT: Just on that final statement, obviously, we need to go back and draft a draft amendment for you all to look at and approve for public hearing purposes, but when get to public hearings, we're going to have to have a minimum of four rounds or one round of four hearings. So, be thinking in advance about those states around the table that may be interested in holding hearings.

CHAIRMAN COLVIN: Mark.

MR. GIBSON: I think Heather may have just answered it, but just so I'm clear, the next work product from the states of Massachusetts and Rhode Island is the draft amendment?

MS. STIRRATT: Yes, that's correct.

CHAIRMAN COLVIN: Okay, anything further on Amendment 4? Bill.

MR. ADLER: Very quickly. So, Heather, you're proposing to bring to the July meeting --

CHAIRMAN COLVIN: Let me answer that. Heather is proposing to bring to this board a draft amendment when the staff of Massachusetts and Rhode Island complete it. Whether that's July of 2001, 2004, or 2010, the ball is in their court. The next agenda item is the NMFS status report. Harry.

MR. MEARS: Thank you, Mr. Chairman. I will briefly comment on two primary responsibilities, the first of which is the continued development of
NMFS/State Memoranda of Understanding with regard to the administration of lobster trap tag agreements.

As we approach our new fishing year, federal fishing year, which begins May 1, we continue our agreements with the states of Maine, New Hampshire, and Massachusetts.

Since our last board meeting, we have entered into new agreements, negotiated new agreements with the states of Connecticut and Rhode Island and we continue our arrangement with the state of New York, whereby federal permit holders fishing only in Area 6 would acquire their tags from the state of New York and all others would acquire their tags from or through the National Marine Fisheries Service.

In terms of regulations, on March 12th a final rule was published to implement the waiver of lobster gear requirements in the Area 5 fishery for those federal permit holders who possess both a lobster and black sea bass federal permit, and this regulation became effective on April 11th and established an exemption type permit category, whereby such dual federal permit holders could elect into a waiver category in which they would not need to tag their traps.

They would not be limited by a trap number restriction. However, they would only be able to possess 100 lobsters per day or no more than 500 lobsters per trip of five days or longer, and such fishermen can transfer from one type permit category into another during the same fishing year. So, once again, that was implemented on April 11th.

We are also in the process of preparing a Federal Register Notice, essentially an advance notice of proposed rulemaking, responding to the Commission's recommendation stemming from Addendum 2 to Amendment 3 of the interstate plan.

Specifically, this would address the recommendations from the Commission concerning gauge increases in all management areas, with the exception of the Gulf of Maine, and obviously not Area 6, which does not include federal waters, as well as an extension of the stock rebuilding period until the year 2008.

The final remaining recommendation concerned an expedited trap reduction schedule concerning the Area 3 historical participation proposal.

At the current time, we're catching that final recommendation essentially on the fly and trying to hook it into the forthcoming proposed rule addressing historical participation in Areas 3, 4, and 5, which we hope to be published in the near future. That summarizes the status of NMFS regulations.


MR. JENSEN: First, thanks for responding on that waiver issue, but a little problem did appear. and that is that those regulations have words "baited pots", and we have raised the issue with the Regional Administrator on people that at the same time they're tending black sea bass pots, they're also tending baited conch pots, and so baited conch pots come under that prohibition of baited pots.

And I'm wondering if you'd comment on how you might fix that, either whether a rule change is needed or whether you can simply clarify it by letter.

MR. MEARS: A response is being prepared, Pete, in response to that letter. I'm not sure if that response has yet been received at the state of Maryland. Essentially it requests some additional information to characterize the conch fishery, similar to the type of clarification we received when the initial request was submitted for black sea bass.

So, once again, our ability to identify a potential
solution to that situation, with or without federal regulatory action, would be facilitated by the response of that characterization of the conch fishery.

CHAIRMAN COLVIN: Anything further for Harry? Thanks for your report, Harry. The next item on the agenda is lobster health issues, an update from the steering committee for lobster disease research.

I'll take a whack at reporting on this very quickly and then maybe Ernie would like to supplement it. I think over the course of the winter the steering committee, under the auspices of the New York and Connecticut Sea Grant Programs, conducted a comprehensive request for proposals for research projects that would be funded $2.5 million from the federal emergency appropriation last year and up to a million dollars of additional funds made available by the state of Connecticut.

The process is complete. Successful proposals have been identified and the PIs have been contacted. The two state sea grant organizations have developed and, I believe, have submitted to National Sea Grant, on behalf of NOAA, their applications for the federal funds to fund the $2.5 million worth of work.

That will be announced -- the actual research projects that will be conducted will be announced once final approval has come from NOAA and the congressional members who supported the appropriation have been notified and provided an opportunity to co-announce the results.

In addition, Connecticut has announced the successful proposals that they are funding out of the state funds as well, and I would invite Ernie at this point if he'd like to address that.

MR. BECKWITH: No, Gordon, I'll pass because I can't recall the titles of all three.

CHAIRMAN COLVIN: I remember that among the three of them, they had about thirty co-PI's, so I don't blame you, but that information is available through the steering committee if anybody needs it, but it will be a comprehensive program with a large number of proposals funded that address a number of different key elements of the pathology and disease problems that we've had in the Sound. I'm sure that that entire agenda will be out shortly.

We are now onto Other Business and I want to recognize George Lapointe. I want to recognize George for mention of issues relating to U.S./Canadian lobster management.

MR. LAPOINTE: Thank you, Mr. Chairman. My staff has recently met with their counterparts in, I believe, Nova Scotia and DFO, and those counterparts, our counterparts in Canada, New Brunswick, Nova Scotia, and DFO expressed an interest in entering formal discussions with the Atlantic States Marine Fisheries Commission on coordination of cross-border issues.

I was wondering if the board thought that was a worthwhile thing to continue exploration on. It's a cursory request at this point. Carl, did I miss anything?

MR. WILSON: No, not too much, no. Basically, I was sitting on a review panel, as well as Paul Rago from the National Marine Fisheries Service. They were doing stock status reports for the Southwest Nova Scotia and Bay of Fundy fisheries.

And the bottom line was that the themes that ring loud and true in the Gulf of Maine on the U.S. side ring loud and true on the Canadian side, too, and there was just the obvious connection between the two. It really seemed an opportunity.

MR. LAPOINTE: I am going to be meeting with my New Brunswick and Nova Scotia counterparts on an array of issues soon, and I could explore this further and come back with more information at the July meeting, just to give you a little more meat to chew on on the bone.
CHAIRMAN COLVIN: Well, I think that would be most welcome, George. Is there any member that wants to comment further on the issue, but I would certainly hope that you could do that.

I think it would be very helpful to us and perhaps at that time we can schedule a few more minutes to talk about how we might respond as a board. There seems to be general concurrence with that idea and I thank you for bringing it to our attention.

The last item I have under Other Business is Massachusetts Advisory Panel Nominee. Tina.

MS. TINA BERGER: Thank you, Mr. Chair. Before you, you have a copy of the current advisory panel nomination of Arthur Sawyer, a lobster trap fisherman from Massachusetts. Mr. Sawyer will be replacing Ralph Maling on the lobster AP and I provide it to you for your review and approval.

CHAIRMAN COLVIN: Motion? Bill Adler.

MR. ADLER: Yes, can I make a motion to accept Arthur Sawyer from Gloucester, Massachusetts, as a member of the lobster advisory panel.

MR. LAPOINTE: Second.

CHAIRMAN COLVIN: Seconded by George Lapointe. Is there objection to the motion? No objection, so ordered.

Is there any further business to come before the lobster board this afternoon? Without objection, we stand adjourned. Thank you.

(Whereupon, the meeting was adjourned at 4:55 o'clock p.m., April 25, 2001.)