PUBLIC MEETING

IN RE:)
)
PROPOSED GEOLOGICAL AND)
GEOPHYSICAL ACTIVITIES IN THE)
MID- AND SOUTH ATLANTIC OCS)
PLANNING AREAS,)
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A Public Meeting, Programmatic Environmental Impact Statement, Proposed Geological and Geophysical Activities in the Mid- and South Atlantic OCS Planning Areas, under the Georgia Civil Practice Act, reported by Elise M. Napier, CCR-2492, in the offices of The Coastal Georgia Center, 305 Fahm Street, Savannah, Georgia, on Wednesday, April 18, 2012 at 1:12 p.m.

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I N D E X

(Reporter's disclosure statement attached to back of transcript.)

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E X H I B I T S

(No Exhibits were marked.)

MR. GOEKE: Let's go ahead and get started. Good afternoon. Thank you all for coming out. My name is Gary Goeke. I'm the chief of regional assessment section, chief for the regional assessment section with the Bureau of Ocean Energy Management in New Orleans. The Bureau of Ocean Energy Management is the agency who has created an environment that will document what we're here to speak about this afternoon and tonight.

We have, this is the second set of meetings that we're having. We're having a whole series of meetings and you came I hope to get in some information that listed a lot of background material including where we're going to be having the meetings over the next few days and next week. So we're here to get your thoughts on the document that we've created.

We have spent about a year, a little more than a year, putting together the latest information that we can on a specific topic on a specific proposal. What we need from you tonight are thoughts on that proposal and if we can keep the comments and keep the suggestions to the topic at hand, which is the offshore geological and

geophysical document that we've created, that would be great. That helps us a lot.

What we have to do as an agency is create an administrative record. While we're writing these documents and while we're creating these decisions, we have to create a track of how we make the decisions and how we reach the decisions and that's called our administrative record. So we want to keep our record this evening to the topic at hand, which is the document that we've created.

We have a number of people who work for our agency who is here. If you have related questions on anything else, we would be glad to talk to you about it but we would like to keep this record on our topic this evening. We have a court reporter here this afternoon to take a verbatim record of what is said so all of the comments that you give us, all of the testimony that you make will be dutifully recorded and will be considered in our document.

Again, like I said, my name is Gary Goeke and I want to thank all of you for coming out this evening. Sitting to my right is Dr. Tom Bjerstedt. Tom Bjerstedt is the project lead for

the geological and geophysical EIS. Tom is generally in charge of creating these technical documents, taking comments and morphing the comments into the document to make sure that whatever information is brought during the comment period is folded into our document. So Tom is going to run the session this afternoon. Tom.

MR. BJERSTEDT: As Gary mentioned, my name is Tom Bjerstedt. I'm the NEPA coordinator for preparation of this environmental impact statement. I'm also the contracting officer representative for the contract that the department advertised and offered for preparing the technical aspects of this program.

I will speak to you about the overall structure of sort of an overview of the draft document that's at hand now and I'll after that I'll introduce William Sloger from CSA International, Inc., the contractor that prepared the technical basis for modelling for impacts for marine mammals.

This is our public meeting. This is the second one on the programmatic environmental impact statement. I'm probably going end up using acronyms sooner or later. It's just engrained but

we're talking about our geological and geophysical activities in the Mid- and South Atlantic planning areas. That's the prime of the document. This is the second venue of eight meetings that we'll be holding along the eastern seaboard, cities along the coast that would be most effected by the post work offshore. You can see the schedule for the places we'll be visiting between now and next week.

We've distributed the draft environmental impact statements. There is two volumes and our copies are sitting there so there is objective evidence, so that does exist. I don't just have to point to a website but it's here, but we've put it on to our website. We published a document, formerly announced that it's available in the Federal Register. That's the outlet that discusses federal divisions activities and such. That was done on March 30th.

We have a 60 day comment period that is in process now. We're here today to either record or receive written comments that you may have on the document itself so hopefully you've had a chance to at least crack it open from our website and see what it's all about because what's most

helpful for us are your comments we can use to respond and react to in the document before it goes final. Public input is very important. Aspects of the National Environmental Policy Act, when I say NEPA, that's what that is for people who use that all the time. It will eventually be a decision document used by the secretary of the interior to act on the proposed action, which I'll discuss here is to conduct this work offshore.

The purpose of the EIS itself is to assess the potentially environmental impacts of various types of G&G activities on the outer continental shelf. We evaluate or project a level of activity based on inputs that we receive from industry and based on our own expertise as to what industries and interest might be offshore. We identify mitigation measures for the work that's being proposed and we also project the kind of impact that work would have on environmental resources that are out there.

The EIS provides information and analysis of the impacts for our agency to make decisions and also for other agencies having responsibilities under environmental law or before these permits or activities are allowed to

proceed. The proposed action, that's sort of the way that NEPA structured is that there is something proposed to be done and what we've proposed to do is authorize these activities required to support three program areas that our bureau is responsible for: Oil and gas activity, renewable energy and marine minerals, which tend to be sand and gravel, which is used for beach regeneration and coastal restoration, whatnot.

The maps that you see evolved on easels and here, this is the South Atlantic planning area, offshore Georgia, North Florida, South Carolina; the Mid Atlantic planning areas offshore North Carolina, Virginia and the northern parts are Maryland, Delaware.

This line here is the edge of the exclusive economic zone for the United States. This is all the area inland inshore of that line are waters and submarine, the seabed is owned by the United States. This line here in purple is the edge of an extended continental shelf. It's not, this area between our exclusive economic zone and this extended continental shelf is currently not territorial waters of the United States; however, there are provisions in treaties that

we've signed with other countries and through the United Nations whereby a country if the outer continental shelf has certain type of morphology, the country offshore of where it sits can petition or try to inhabit, incorporate as part of their exclusive economic zone.

The economic zone itself is set up by treaties with other countries so we can extend it out if the United States chooses to do so. It hasn't yet but it's in a data collection phase and if or when the United States decides to do that, as we did this work, we decided to not only look at the resources that are the end of the 200 mile exclusive economic zone from shore but also all the way out to 350 nautical miles. Take a look at that whole area just in case there might be some point the United States might try to pursue adding this extended continental shelf into our territorial waters.

The types of activity that we're discussing here are geological and geophysical in nature. For geological, it tends to refer to either direct sampling of the sea bottom or shallow penetrations of the sea bottom purpose. Shallow test drilling tends to be regarded as

penetrations of the sea bottom less than 500 feet deep and deep stratigraphic tests are penetrations of the sea bottom that are generally greater than 500 feet. This is not exploration drilling for oil and gas, this is research and understanding what might be there.

Geophysical activities, what we're talking about is two and three dimensional seismic surveying. We're talking about control source electromagnetic surveys. These are techniques that industry uses to understand what sorts of gases and fluids are in the rocks and sediments that's below the seabed. Also as part of the geophysical suite are what we call high resolution geophysical surveys. These tend to be more geo-engineering in nature as opposed to direct exploration for resources that might be buried. It's for the placement of facilities on the sea bottom for renewal of energy facilities. It could be also for oil and gas structures.

The kind of techniques that are used are electrobeam echosounders, these determine the symmetry. Also a sidescan sonar is a technique that's used to look at obstructions on the sea bottom, ship wrecks, perhaps or also marine hard

bottoms where you have living animals and corals that are on the sea bottom and a technique here or a tool called a boomer. It's not as intimidating as it sounds. It's an electromechanical device, it's not an airgun. It uses an electrical charge and the reaction is of a plate of metal to have a signal that goes into the water and that's what the energy source is, is to bounce off of the sea bottom and also the layers that are -- the shallow layers in the subsurface.

Also we're talking about gravity and magnetic surveys. These tend to be conducted along with the seismic surveys that are taking place. The tools are brought along with the survey instrumentation. Also airborne site of gravity and magnetic surveys, we also permit those. These are the suite of activities that we're talking about in the environmental impact statement.

When you examine opposed action, you have to take a look at what are the impact reducing factors. It's kind of a fancy word for what sort of stresses are you placing on the environment by doing that work. You have routine activities that are -- that you know will happen

as a consequence of the work by the nature of the tools. You have also accidental events which are unpredictable and by their nature. So you role -- you take a look at both. What are the operational activities that are going on, what stressors are being placed on the environment and what can also result from an accident.

And our routine operations, we expect to have air time sources, active acoustical sound sources, seismic surveying, electromechanical sound sources, these are the tools I just mentioned to use multibeam echosounders, boomers, sparkers, sidescan sonars. Drilling and coring, any time you penetrate the sea bottom you have drill cuttings that are involved especially at any depth and things are brought to the surface and they tend to be discharged at the seabed. Also operational weights of any drilling of that nature are the kinds of chemicals that you use to lubricate the drilling bit to bring the cuttings out of the hole.

Bottom sampling, that's sea floor disturbances is what you imply here any kind of sampling, grabbing, touching, drilling and coring, anything you may discharge on the bottom.

Placement of anchors, cables and sensors; on shore base support services are also a component because the time people are working on the water you have on shore support activities that take place. The ships have to berth somewhere. They buy supplies from suppliers on shore and then the people that work offshore live somewhere. So these are all direct impacts as a result of this kind of work.

Vessel traffic, the noise, exclusion zones for safety issues, any waste generated by the boats on the water and any time you have people working on the water you've got trash and debris issues. As far as accidental events are concerned, since we're not exploration drilling, we're not talking about producing oil and gas, we're not talking about pipeline, we're talking simply about boats on the water so the accidental event that you could conceive of for this activity are collisions or accidents at sea that spill diesel fuel in the water.

Once you have an array of impacting factors that you assess that are part of your proposed action, you take a look at what are the biological, the physical and the socioeconomic resources in the area that you're proposing to

work. For us in our purposes we've looked at benthic communities, we've looked fish and fisheries both commercial and recreational and essential fish habitat, which are the life conditions that are needed for vibrant and healthy fisheries of both types, recreational and commercial.

Birthing mammals; sea turtles; coastal and marine birds; protected species that would be in any of those categories I mentioned; the socioeconomic issues; archeological resources; eastern seaboard have a long history of human activity on it, got lots of ship wrecks out there, that's part of the sort of thing we want to be concerned about. Marine protected areas, the Federal Government has designated special places as marine, natural marine sanctuaries. There are two in the both areas of interest, the South Atlantic has three natural marine sanctuaries and the Mid Atlantic has the monitor national marine sanctuary.

Human resources and land use, as I mentioned, the onshore component of activities that support offshore work and other marine uses would be taking a look at what other sorts of

activities are going on out there at the same time you're proposing to do this. And in our case on the eastern seaboard there are fast tracks of those areas that are used by the military. The Department of Defense has range complexes out there in which they conduct all manner of submarine testing, sea surface testing and even aircraft testing that drops things in the water. These are fast tracks of real estate that are either designated by regulation or other authority that are out there already so we have to look at our proposed action in context.

The heart and soul of EIS are the alternatives that are looked at. In our case we formed three of them. They are based on a structuring for a time area closure that have been identified already on the sea. The National Oceanic and Atmospheric Administration, NOAA, has already designated large tracts in the South Atlantic and Mid Atlantic planning areas close to shore as seasonal activities that have restrictions at certain times of the year primarily for whales that are migrating up and down the coast and that have spawning activities off the Georgia and Northern Florida coastlines.

We've looked at these seasonal management areas and we've said, okay, they are recognized already in current regulation. We'll restrict these areas during the period that NOAA has recognized them for, a vessel speed control. That means during certain times of the year vessels transiting those areas need to go slower because there is a better chance of seeing little sea marine mammals at the surface when the boat is going slower, it's just a physical fact. So our proposed action is saying we'll restrict those areas during those periods that NOAA already recognizes do not have airguns operate during those periods.

The other aspect for the structural alternative is to look the Gulf of Mexico practices and operating procedures. These activities have been going on in the Gulf of Mexico for a long time. We have existing mitigation suites that we apply to operators that are doing this work in that area. We are examining it for applicability in the Atlantic and we call these notices to lessees. These are explanations that are available for operators and industry that explain how we interpret our

regulations.

Our operating regulations are specific to a degree but they don't account for every single thing so we need amplified guidance on certain aspects. They don't identify setbacks as being ultra specific to things. For example, these NTL's tend to do that. They identify, for example, protected species observers for marine mammals that are out there, vessel strike avoidance requirements, marine trash and debris awareness. Together what these NTL's in our operating practices is sort of a design element for surveys. They guide how under what conditions you review a survey, they guide under what conditions you identify -- conditions under which you would curtail that activity and these are all what we call design elements for a survey. Survey protocols is what the document calls them.

We've fashioned our alternatives around timely closure and applicability of the guidance that we use in the Gulf of Mexico. Best proposed action, those primary closures I mentioned, alternative A are considered.

Alternative B, the philosophy for this alternative is an enhanced suite of mitigation and

also is an extended primary of closures that are based on NOAA time frames that I mentioned to you earlier. We also recognize alternative B a closure area offshore Central Florida Coast for nesting sea turtles and separation between surveys that might be taking place at the same time. Required passive acoustic monitoring, what that is tends to be referred to, did you hear of PAM? It's sensitive hydrophones that are in the water that an operator listens to and try to determine some of the characteristic noises of marine mammals under the water, creeks and various things, sounds; therefore, you can have opportunities and know whether animals might be in the area that aren't at the surface. You can't see them, you don't know if they are there or not. This technique gives you some insight whether they're in the area but you can't see them. They are under water.

Alternative C is required by a NEPA evaluation. It's a no action alternative and the way that we defined it that since there is no current G&G activity in the Atlantic, that aspect of our program is a no action alternative. It means that if you don't have it, if you select

alternative C, you're not going to do this work. Those other program elements we've selected a status quo aspect to them, which is they are allowed by NEPA, meaning that we're not seeking to foreclose things that are already happening, we are just examining the wisdom of going forward for things that are not currently permitted.

Removal of any of these programs and sand and gravel work currently authorized across the enter Atlantic seaboard so we're not proposing to top any of that, we are just proposing to let it go on. It's just not covered under the programmatic elements that the EIS is covering.

I mentioned the time area closures and especially for alternative A, if you look at the map here, this hatchered area is critical habitat for the Northern Right Whales has been identified by NOAA fisheries. It's offshore, the Jacksonville area extends along the shore line all the way to the boundary of the South Atlantic planning area.

This orange area that encompasses most of that they call the southeastern seasonal management area and according to identified air seasons you can see that time area closure is

recognized by NOAA fisheries already for activity for vessel speed in these areas. We're saying no airguns for those same time periods.

The middle, the seasonal management area is just north here from the Brunswick area of Georgia along the coastline to Wilmington and these small space areas coastline to regions that enter large estuaries and ports that are busy so there tends to be a lot of vessel traffic there and that's why NOAA has identified primary time speed restrictions for those areas. During these periods of time they are supposed to be going slower. The reason being is that the marine mammals they live during the summer time offshore in New England States and as summer, as the year progresses they migrate down the shoreline usually within 20 nautical miles. Most mammals are safe within that band between shore and about 20 nautical miles out. They are all over the place out there but they tend to go along the shoreline. They migrate down in the summer months and then they over winter in this critical habitat area, seasonal management area.

Alternative B, as I mentioned, the philosophy for B is to lay on an extra enhancement

for some mitigation and expand some of the time area closures for the same rationale that I just explained to you, there are seasonal migration of these animals along the coastline. So part of alternative B involves expanding the north Mid Atlantic seasonal management area to fill in all of these small -- this whole band continuous. So if there is a continuous band from the northern part, from the Mid Atlantic planning area boundary all the way along the seashore to this southern edge of the South Atlantic planning area. For the southeastern seasonal management area to extend that area south so it creates a continuous belt whereby you would not have airgun usage at the same time period NOAA recognizes those speed controls.

Alternative B also includes this area along the Brevard County, Florida with an area that has a lot of activity that has loggerhead seals, loggerhead turtles and leatherback turtles. There are live nesting sites I've identified here, tens of thousands of them and during this time of the year they come ashore to lay their eggs, eventually hatch and go out to sea. What we're saying is that this is probably an area that's

worthwhile to restricting airgun activity for that reason, so that's why it's alternative B.

What you'll see in the EIS if you want to take -- have a good rollup of the work that we've done, take a look at table two, dash, two. What you'll see is a rendering that shows all the resources along one axis, all the impacting factors that apply to those resources. This is just an example, all the alternatives across the top and then an assessment of impact significance for each of those resources for each of those impacting factors. And this is what you'll see: Qualitative descriptors that ranges from negligible minor, moderate to major. All of the assigned impacts have been assessed for the work that's being proposed and none of them have a major impact on any resource. They are all something other than major or smaller. So if you want to take a look if and when you look at the EIS, go to 2.2 to get a good rollup of the whole picture.

Consultations are required to be done under environmental law. These tend to be done when the environmental impact statement is written, drafted and then finally finalized. So

this current activity among them are Section 7 of the Endangered Species Act and the Marine Mammal Protection Act. We've done, we've begun informal consultations under these laws and we'll be carrying them out to conclusion as we finish up the environmental impact statement.

The next steps that are on the table ahead of us here is that we have a public comment period that began. We're in the middle of April and May, 60 days for public comment. We'll take all of the input that are received from folks like yourself, from federal agencies and state agencies that comment on the document; we'll revise it into a final; we'll review and begin to construct a recommendation for management to consider for how to decide what they are going to do and the environmental consultations is taking place concurrently all the time.

Record of decision is what happens at the end of the NEPA evaluation. It's what happened, what's your decision. It's called a record of decision and under the current schedule you project that to be early December before the end of the calendar area. I mentioned to you that the common period closes May 30. We are expecting

testimony in meetings like this, oral testimony that the court reporter takes down also written anything that's submitted in writing, we take that. We have a dedicated e-mail box for comments, GGEIS@boem.gov. A copy of the draft is out there. All the materials that you may have received at the tables in front, they have the website identified where you can go and just click up the documents and take a look at it right there. If you want to comment on using the United States postal, the address is here. It's also in all the literature you may have picked up coming in.

And so in closing what I would say is that our agency has spent over a year preparing this proposal, this evaluation. It involves state of the practice modelling for noise in the ocean, caused by this sort of activity. It's rather complicated. It needs to be digested so what I ask is when you do take a look at it and you do offer comments, paw through the document, take a look at it, try to understand the rationale for the mitigations, understand why they are proposed and then prepare comments that would help us make a better document using that incite, whatever

incite you can bring to bear is what we ask.

Now, I'll introduce Mr. Will Sloger, he's from CSA International, Inc., the contractor that did the modelling for us on impacts on marine mammals and we'll talk a little bit about that so that you can have some idea, get an overview of how we approached that issue of noise in the water. Will.

MR. SLOGER: Thanks, Tom. I would like to briefly describe the assessment of potential impacts to marine mammals from the proposed action. Marine mammals are one of 15 resources that were evaluated in the EIS and you saw a previous slide that listed all 15 of those. Those resourced areas were identified as having potential to be impacted by the proposed action.

The impact assessment process is a multistep process, the first step being to identify resources in the case of marine mammals that involved identifying species, distribution density. The next step is to define criteria that defines significance of the impact to those resources. Once that's done, we then identify factors that might impact marine mammals category of resources. Once all those areas were defined,

data was then collected by the proposed action resources and potential mitigation measures and then with all that the analysis followed to determine takes, intentional takes, if any.

Okay. Now, I'm going in the right direction. In the area of interest -- and I'll probably use that phrase a number of times, as Tom mentioned, the area of interest is two planning areas: The Mid Atlantic and South Atlantic planning areas off the Atlantic Coast. But in the area of interest 38 species of marine mammals are they are all listed here. As you'll see there is a category of Sirenians, which is the West Indian manatee. That and the pinnipeds are unlikely to be impacted as they rarely occur within the area of interest.

To help us in establishing impact criteria you must first look at federal laws that apply in this case, Endangered Species Act and the Mammal Protection Act. The Endangered Species Act, of course, lists mammals that might be threatened or endangered, which comes in play in the consultation process, Section 7 under the Endangered Species Act, acquires consultation, which BOEM is in the process of doing with

National Fishery Service. It's important to note that operators in the future will have to apply for incidental take authorizations for their specific surveys.

Again, within the area of interest there are seven listed species perhaps in this area most notable would be the North Atlantic Right Whale, which Tom talked about earlier. In determining levels of impacts, the Marine Mammal Protection Act is very important as it defines two levels of classes: Level A and level B. Those are used in the impact evaluation process. To help us with assessing impacts criteria must be developed to determine levels of impact. These are done partly by using things like the harassment levels of the MMPA as well as looking at recent other documents and environmental assessments that were done in those. We ended up with criteria that four different levels of impact criteria and those levels were based on a number of parameters first being detectability, that is impact measurable or detectable. Secondly, duration is a short term or long term impact. Next is spacial extend. Impact whites spread that were in a very small area and, finally, severity.

Here we've listed the impact producing factors that might affect marine mammals. There are only five that comes from a larger list that Tom showed earlier. As Tom mentioned, with the exception of first factor of acoustic sound sources is the impact level for all the remainder was either negligible or minor.

For assessing impacts there are three steps, three primary steps that have to be followed: Collection and support of information; establishment of mitigation measures and, finally, determination of potential impacts. The G&G surveys is a proposed factored into the evaluation of the proposed action. To define the sources of sound, we reviewed all those proposals and developed a list of six sound sources that are representative of all surveys: Two airgun values, two seismic airgun arrays large and small and four electromechanical sources, which Tom described earlier.

The measure of the survey as far as overall amount of survey is line kilometers and here we have a table showing the line kilometers the anticipated surveys that occur over the nine year period that the EIS looks at 2012 to 2020.

As you can see two of these surveys are the lyon's share of line kilometers listed here. All of these are -- all of these different types of surveys are seismic surveys. This table is just a visual representation of where surveys might occur. It shows you all the information that was on the previous slide and as you can see there are certain areas, the darker colored areas where survey levels or survey intensity is greatest.

In gathering information one of the areas we looked at was one of the specifics about marine mammals. They are frequency range of hearing the thresholds, which they are able to hear, evaluation also used a couple different methods of assessing those impact thresholds. The primary one, of course, is the nips approach, sound level and there is also a second approach, the proposed assessment.

The modelling study was conducted estimated propagation underwater sound. Six sound sources, as I mentioned, were used. We then looked at 22 different sites throughout the area of interest. Those sites were chosen to address physical conditions such as water depth, the odd compensation also water temperature, which could

affect sound speed profiles. The combination of those 22 areas and the six sources gave us 35 different propagation scenarios, you know, modelling for 105 different acoustic field estimates. This is one of the intermediate products in the assessment process. These figures are sound pressure level diagram showing differences in sound pressures at different points, one on the continental shelf, one out in the continental slope in the area of interest.

The acoustic impact model A was the means software that was used for the assessment and it assesses the levels and number of marine mammals that might be exposed to sound within the area of interest. It does have by creating a virtual environment taking a lot of the parameters listed here into account. It models for sound source properties and movement that comes from the acoustic provocation model. It takes into account key distribution and dive patterns and also the environmental factors that I just mentioned. It also factors in certain mitigation methods, not all the ones that will be applied, but many that can be modelled are input into that model.

This is a summary of impacts from the

seismic airguns. One point that's very important to note is that because the model doesn't take into account certain, certain mitigation factors such as presurvey observers, a couple of the other factors that are going on, it's very conservative in the estimate of take a result. You see in the slide very similar to this earlier, this is a list of mitigation measures and how they are applied to the three alternative. A, of course, is the proposed action, alternative B has different mitigation measures. And I guess it's important to note that alternatives A and B are largely the same as the proposed action. The difference is in the mitigation efforts that are applied and alternative C, of course, is no action. I guess the two points, two mitigation measures most noteworthy here are the passing of the acoustic monitoring, which is optional in the alternative A, required under alternative B and also the separation distance alternative A does not require one. Alternative B requires a 40 kilometer separation distance between simultaneous surveys.

The slide you've seen also showing the areas that are closed largely due to right whale habitat near shore along the area of interest.

Alternative B expands those areas both north and south and also has an area posed due to turtle nesting down at the southern end of the area.

Again, this table is similar to an earlier table showing the level of impact ultimately determined through the assessment for the five factors that might affect marine mammals. All of them, of course, are negligible to minor. Only the acoustic sound sources has the moderate level of impact.

And that's the end of my presentation this takes us back to the beginning of the comment process. I'll turn it over to Gary for that.

MR. BJERSTEDT: Thank you, Will. When you came in today, you had the chance to sign up to speak in order of your arrival. That's what we'll be doing at this point. There is not a lot of people here. There is only five people that are signed up to speak, so I don't think we need to impose speaking limits but be reasonable, please. Mr. Richard Cobb.

MR. COBB: Good afternoon. My name is Richard Cobb. I'm the executive director of the Georgia Petroleum Council, which is the division of the American Petroleum Institute. Thank you

for the opportunity to speak today about this PEIS, which will support the issuance of permits to conduct geological and geophysical studies, activities on the Atlantic OCS.

The oil and natural gas industry has a long history of working with the Department of Interior to develop this country's natural resources to the benefit of the U.S. economy and all to Americans. Our industry stands ready to invest in exploration in the Atlantic OCS and this PEIS is an immediate first step to generating the data that will allow for a more accurate estimate of potential for oil and natural gas development in this area. Generating new data is very important for the Atlantic OCS given the current estimates are based on decades of old data as have the technologies and seismic surveying and computer modelling in use by the industry today.

Although it's difficult to accurately estimate the amount of resources without the benefit of drilling, our past experiences have shown that active exploration and development often leads to increased revenue estimates; however, the belief that moving forward with this decision can quickly lead to filling the

information gap on potential Atlantic OCS oil and gas resources is misguided. In fact, the data collections activities and envisioned by the administration will not likely happen unless companies are convinced the prospects for leasing Atlantic OCS in the near future are real. As you know, current OCS policy does not allow for lease sale Atlantic until 2017 at the earliest.

It's important to remember that government does not generate this data, seismic companies do, and they generally do this on a speculative basis hoping to sell the data to operators who are willing to purchase leases in the area. With no lease sale scheduled for the Atlantic seismic companies have little incentive to gather new data excluding the North Atlantic planning area, the PEIS a short sighted policy decision. There is great deal of interest in surveying and eventually developing this area. Without new seismic information, the significant data gap will remain for the North Atlantic planning area.

We can create more jobs and general more revenue to allow to responsibly develop and produce here in the United States more of the oil

and natural gas we need. The more development requires the industry and government share a vision of the potential benefits and act as partners to fully realize them. The Wood Mackenzie study shows that developing the offshore areas that have been subject to congressional moratoria as well as the resources in Alaska's Arctic National Wildlife Refuge as well as a portion of unavailable federal lands in the Rockies would, number one, lift U.S. crude oil production by as much as 2.8 million barrels a day in 2025; two, increase natural gas production by 6.5 billion cubic feet per day by 2025; create 530,000 new jobs and, finally, add 206 billion in cumulative government revenue by 2025.

While Atlantic OCS leasing and development would also have a significant positive affect on Georgia's economy. It would bring much needed jobs and a variety of industries. The study shows that opening of the Atlantic offshore areas could bring 2,600 new jobs to Georgia.

In addition offshore development could generate much needed revenue for critical services including roads, environmental conservation and education. An additional $285 million in revenue

could be generated for the state of Georgia from 2012 to 2030 if offshore development were allowed to take place in areas that occur off limit.

I appreciate the opportunity to comment on this PEIS for the Atlantic OCS and the oil natural gas industry stands ready to invest in safe exploration and development should administration policies change to take full advantage of our opportunities. Thank you.

MR. BJERSTEDT: Matthew Padon.

MR. PADON: Thank you, Richard. My name is Matthew Padon and I'm here with Seaboard Exploration and here today representing the International Association of Geophysical Contractors, the IAGC. The IAGC is the International Trade Association representing the industry that provides geophysical services to the industry including both the conventional and renewable energy sectors.

IAGC members have expressed interest to conduct some geophysical activities on the Atlantic offshore continental shelf. It is the IAGC member companies who play an integral role in the successful exploration and development of offshore energy resources through the acquisition

and processing of geophysical data. There is a need in value of geophysical data. Geophysical surveys are key tools to use in exploration of oil and natural gas and siting of renewable energy facilities.

Geophysical data is critical to the successful discovery and efficient development in production and oil of natural gas. When applied early in exploration process geophysical data aids E&P companies of focusing their analysis and illuminates the most prospective areas for future oil and natural gas exploration allowing for the elimination of those areas that are unlikely to be prospective.

Geophysical data is critical for the development of renewal energy providing important key data required to site renewal energy facilities and design the foundation of structures that will be required for the development of renewable energy. Geophysical data is also very valuable to the federal government and even to state governments. Geophysical data is critical in understanding the oil and natural gas resources bases off the U.S. offshore continental shelves.

Advancements over the last ten years in

data acquisition and processing technology has resulted in fewer dry holes and smaller exploration and development production footprints. Specific comments regarding the draft PEIS of the three alternatives listed, the IAGC supports alternative A. The proposed action, which allows the greatest coverage using deep penetration seismic and includes seasonal closure of areas for the Right Whale.

We don't support a 40 kilometer separation distance between simultaneous seismic operations which is included in the mitigation measures proposed as part of alternative B. Notwithstanding that geological and geophysical permits recently approved in the Gulf of Mexico Western and Central planning areas include this mitigation measure as a condition of permit and approval, it was not developed using any scientific or anecdotal evidence.

We believe the PEIS should be expanded to include the North Atlantic planning area as well. E&P companies need geophysical data that they can use to tie past and current production data from offshore Nova Scotia to the U.S. Atlantic basins. Without this new data there is a

very significant gap in the regional work that E&P companies will want to perform.

The incremental cost and time to extend the PEIS to the Northern Atlantic planning area would be minimal and allow for geophysical data acquisition to occur for renewable energy siting requirements as well as when this area is finally considered for natural gas and oil exploration production.

If the North Atlantic planning -- if the North Atlantic planning area is not included, we encourage BOEM to conduct individual, project specific environmental assessments as needed that will allow geological and geophysical operations to take place.

Lastly, each of the G&G permit applications currently on file with BOEM are for the purposes of acquiring nonexclusive seismic data which would be licensed to E&P companies as they develop a better understanding of the hydrocarbon resource potential in preparation on pending lease sales. Thank you.

Although the Atlantic PEIS will pave the way for seismic activity in the area of great interest with exploration companies, without any

planned leasing in the next five years the likelihood of seismic contractors investing in nonexclusive seismic data acquisition is very uncertain.

Our sector of the energy industry that is geophysical operators meet the environmental challenges that are upon us. Our industry conducts operations globally in a variety of environments. In particular geophysical industry has 50 years of experience in the U.S. Gulf of Mexico offshore continental shelf and 40 years of experience in the U.S. Arctic OCS. During that time there has been no scientifically supported evidence that routine seismic surveys result in population levels impacts for any marine mammal species.

Our industry routinely employs operational practices which protect whales, dolphins and other marine mammals. With these appropriate risk based mitigation measures, we feel that seismic surveys have and will continue the undertaking with little or no biological significant impact to marine mammal population and to marine life in general. In addition, it's important to remember that seismic surveys are

temporary and transitory and use a low frequency short duration source signal.

The IAGC values the stakeholder process and are committed to participating in a dialogue with all stakeholders to explain what we do, why we do it and the measures that we take to protect the environment.

I have with me several educational items that explain modern marine geophysical data acquisition here at my desk if anyone cares to take some home with you. Measures geophysical industry implements to ensure minimal impacts of our operations on the environment. This information is available for BOEM and those in attendance in the back of the room.

In conclusion, the IAGC wishes to, again, express our appreciation for this opportunity to voice our support and commitment to work with BOEM and all stakeholders in the development of the Atlantic PEIS. Tom, Gary, thank you both very much.

MR. BJERSTEDT: Vicky Weeks.

MS. WEEKS: Thank you for the opportunity to speak here today and make these comments. My name is Vicky Weeks, W-e-e-k-s, and

I'm representing myself as a person who is interested in our environment and our ability for us to support the cohabitation by all of these here.

In the summary of the document I noticed that the BOEM is receiving permit requests for seismic airgun surveys and it was pretty much the reason given for the initiation of this process and this study and the intent is to support the expansion of the oil and gas exploration. And one would assume if one would guess or assume, we don't want to just explore for it, we would actually want to begin producing it and that's where the bigger problems enter into as we look at this process it is the precursor process of the ability of the industry to implement offshore drilling and oil and gas.

As we look at this specific study, I noticed that most of the survey was focused on the seismic airgun but I also notice that electromagnetics are basically involved and in terms of marine mammal navigation I believe we've seen some substantial scientific evidence showing that marine mammals use magnetic orientation in their navigational and biological processes and I

don't see that that was at all addressed here. In terms, that's pretty much your operational events.

In terms of accidental events, well, spills and accidents from those in the process of doing the surveying can be listed as minimal with regard to the survey process but as we've all seen in the Gulf of Mexico, I find it interesting we base so much stuff on all the work that was done in the Gulf of Mexico to ensure the environmental protection and then we had the BP Oil spill, which shows us how well we did in that job.

So, again, while we may not have accidental spills in the process of the search for the oil and the seismic testing for the oil, once, again, the intention here is to build oil and gas exploration wells.

Finally, one of the things that I saw that the report briefly addresses is the broader cumulative impacts those being climate change and the cumulative sea noise. I'm sorry to say that I did not see -- I didn't have time to go through 515 pages of the report to identify what the assessment on the cumulative sea noise was, but I was glad to see you were looking at it.

As we talk about the marine mammal

population here with regard to this specific seismic exploration, I also noticed that it was no mention of the sea turtles here on Tybee and Coastal Georgia, which I believe we do have a fairly substantial population in this area. And, additionally, I noticed, I know that the coastal bottom dolphins are not listed as a threatened or endangered species, but they are in terms of the tourism in this area, a key draw to people coming to visit the area.

And when you talk about the incidental taking, the killing is one level of impact but there is also the behavioral changes and those behavioral changes can be substantial to these populations of other marine mammals that are really crucial to our tourism industry here.

The gentleman who spoke earlier spoke about how leasing, that this wasn't an imminent process that was about to occur because the option and the opportunity for offshore leasing for production wells wasn't 1zgoing to occur until 2017 as thought that was a long time from now. 2015 is five years from now.

In terms of job creation I do not have the specific data here to speak into the record

but I will be submitting a written record, but there are numerous studies to show that the job production capacity of the alternative and renewable fuel industry far exceed the capacity of the fossil fuel industry and do so without the time commitment environmental threats and dangers. As a result of all of those pieces, I will strongly urge that we adopt option C. Thank you.

MR. BJERSTEDT: Jeff Hamling.

MR. HAMLING: H-a-m-l-i-n-g. Good afternoon. My name is Jeff Hamling and I'm the Vice President of Federal Affairs for the Georgia Chamber of Commerce. I'm here to represent the membership of Georgia's business community and voice support for the Bureau of Ocean Energy and Management's decision to allow seismic studies of the Atlantic outer continental shelf. We believe these studies are important because they will determine the potential resources of oil and natural gas available for domestic production.

Georgia Chamber members employ nearly one million Georgians. Our companies span almost every major industry that drives the U.S. economy including agriculture, manufacturing, transportation, technology and healthcare. We

have members that are Fortune 500 companies as well as small businesses that are just starting up.

I'm here because Georgia businesses understand the value of oil and natural gas and the need to produce more of this energy domestically. Our member companies are similar to millions of businesses throughout the country that are relying on oil and natural gas powering factories and offices, transporting goods to market or using the products created by these rich resources.

Producing more oil and natural gas domestically will provide a steady, reliable source of energy helping to keep input costs stable. Studies show that developing oil and natural gas reserves in offshore waters and other federally controlled areas could create thousands of jobs and generate hundreds of billions of dollars in new revenue for government programs. In Georgia alone a Wood Mackenzie study concluded that thousands of jobs in over 285 million in state revenue between 2012 and 2030 would be generated the area off the Atlantic OCS is developed. But we need to begin now. Our Chamber

believes that government policies should be based on sound science and data. With this mind we fully support the government's decision to conduct seismic analyses. The data available regarding the offshore Atlantic area is over 20 years old and new seismic survey technologies would give producers a clear more detailed accounting of OCS resources as they make business decisions regarding exploration.

Our organization understands the important balance between environmental impacts and economic opportunity; therefore, it is reassuring that the seismic survey techniques will be carefully managed by the operator to avoid impacting marine mammals. And as there have been significant strides from both the government and industry to improve offshore drilling safety, we appreciate the continued efforts to safely develop offshore resources.

Thank you, again, for the opportunity to comment and in conclusion we ask that the government allow seismic studies to move forward and to allow the oil and natural gas companies to begin leasing land for development.

MR. BJERSTEDT: Claudia Collier.

MS. COLLIER: I'm going to try not to read but I don't feel so bad, everybody else is reading theirs. I'm a nontechnical citizen activist so forgive me if my comment is going to be simple and common sense. There is an old wise saying that advises against putting all your eggs in one basket. Both of our political parties as well as our current administration have professed to believe in the all of the above energy strategy and since we're already drilling for gas and oil in the north, in the west -- I mean, the west and massively in the south as well as all across our land, I contend that we have many, many eggs in the gas and oil basket.

So on the East Coast we have determined that there is already a lot of win potential on and mostly on the shallow shelves where there is going to be keen competition for the oil and gas exploration as well. I think it will probably be cheaper for both oil and gas to choose these shallow shelves first. And with the corporate elephant in the room, I'm sure you can imagine who is going to win that competition.

So I will read my last statement. I would suggest that we designate the East Coast our

wind energy basket. All your study work, all your great study work here can be utilized to develop a truly diverse energy portfolio that will wisely navigate an uncertain environmental and economic future. Thank you.

MR. BJERSTEDT: Laura Kreski.

MS. KRESKI: Hi. I'm opposed to offshore drilling but I don't think that's what we're discussing today. I think we're discussing the environmental impacts of these surveys and I hope that you will do the best that you can to protect the wildlife in these areas and I think you're really taking steps and I hope you take extra steps as possible. I think option B will be my focus.

MR. BJERSTEDT: That's the end of the people who have signed up to speak. Is there anybody else who would like to say something?

MR. MOORE: My name is Sammy Moore, S-a-m-m-y, and two O's in Moore. I just retired after 32 years in the offshore oil industry, started working off the Coast here back in 1979, ended up -- I worked for Transocean, lost friends over there, but we're not talking about offshore drilling, we're talking about defining our

resources. I'm in favor of proposal B. I think we need to clearly define our resources in this country. I think it could be a good bit of the proposal so I like what I've seen and I think you have done an excellent job on it and I think mitigations are in place. Thank you.

MR. BJERSTEDT: Anyone else wishing to speak? Okay. That will conclude our afternoon meeting.

(The presentation concluded at 2:22 p.m.)

CERTIFICATE

GEORGIA:

CHATHAM COUNTY:

I, Elise M. Napier, Certified Court Reporter for the State of Georgia, do hereby certify:

That the foregoing deposition was taken before me on the date and at the time and location stated on Page 1 of this transcript; that the witness was duly sworn to testify to the truth, the whole truth and nothing but the truth; that the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed by computer-aided transcription; that the foregoing deposition, as typed, is a true, accurate and complete record of the testimony of the witness and of all objections made at the time of the examination.

I further certify that I am neither related to nor counsel for any party to the cause pending or interested in the events thereof.

Witness my hand, I have hereunto affixed my official seal this 2nd day of May 2012, at Savannah, Chatham County, Georgia.

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ELISE M. NAPIER CCR-2492

D I S C L O S U R E

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