BUREAU OF OCEAN ENERGY MANAGEMENT

Public Meeting

Programmatic Environmental Impact Statement
Proposed Geological and Geophysical Activities
in the Mid and South Atlantic OCS Planning Areas

April 26, 2012, 1:04 p.m.

Hilton Wilmington Riverside
301 North Water Street
Wilmington, North Carolina 28401
Session reported by: Glynde M. Jones

BY MR. GOEKE: My name is Gary Goeke. I'm the chief of the Environmental Assessment Section with the Bureau of Ocean Energy Management in New Orleans. Sitting go to my right this afternoon is Doctor Tom Bjerstedt. Tom is the project manager for the EIS that we're here to discuss this afternoon, and so what we're going to do, we wanted to -- we appreciate all of you showing up. This is a very good turnout. First things first, bathrooms are out -- down the hall to your left just beyond the stairway, emergency exits here and out in the hallway.

And if there are no general questions about how we're going to run the program tonight, I want to give you just a little bit of background. We have created an environmental document that looks at geological, geophysical data collection techniques that may or may not be permitted in the Atlantic Ocean. Tom will go into much greater detail. What we are doing here is creating an administrative record so that we have legal support, legal documentation which will back up our documents as we move through our process.

What we would appreciate from all of you this afternoon is to try and keep comments focused on the proposed action. The proposed action is the collection of geological, geophysical data offshore. Again, it may

or may not happen. This EIS that we're looking at and that we're discussing this afternoon does not allow anything to happen unless there will be additional environmental work done to evaluate potential effects of these permits, of these -- of the project that we're talking about. This is a programmatic document, which means it's sort of an overview of the potential impact that -- that these different types of processes may have in common.

Given that brief background, again, if you can keep your comments focused on what we're -- what we're here for this afternoon, geological and geophysical data interpretation, it helps our -- it helps create our administrative record, helps create a stronger document.

Tom Bjerstedt.

BY MR. BJERSTEDT: Good afternoon. Can people hear me?

AUDIENCE MEMBERS: Yes.

BY MR. BJERSTEDT: I am the NEPA coordinator. NEPA is an acronym that stands for the National Environmental Policy Act. The coordinators of the document which involves the work by our Bureau scientists and also our contractors that we engage to carry out the noise in the sea modeling that's an important part of the environmental impact statement --

I was the contracting officer's representative for that contract. For the -- that work was carried out by CSA International, Incorporated based in Stuart, Florida.

What I'll talk to you about now is give you an overview for the document before we open the floor to comments from folks -- this is a public meeting schedule that we have laid out for this environmental review. You can see that it's a two week period of time. Today we have two groups in the field. We have a meeting like this going on in Wilmington, Delaware while we're here today in Wilmington, North Carolina. So by the end of the week, we will have visited all of these places to receive comments from people like yourself that we use in the process to revise the document from a draft into a final.

The purpose of the meeting today is to report that we've prepared the draft. We have distributed it. It's available on our website. The information materials that you've picked up coming in reports where you can -- you can download it or just pick up the document, take a look at it. It was published -- notice of its availability was published in the Federal Register on March 30th, and it's open for a 60 day comment period from March 30, closes May 30th.

We're here to collect your oral testimony or

anything in writing you wish to submit that we would -- help us prepare our final draft from this -- final version from this draft. And I mentioned the National Environmental Policy Act. It's an important process to receive public input on draft documents, because that law, NEPA, is really the Magna Carta for the Federal government in imposing decisions that it's going to be making to -- a thorough and studied review before the decisions are made. And part of that review is the analysis by experts, but it's also input from state and Federal agencies and people like yourself who have an interest in the outcome of the decision.

The purpose of the document is to assess a potential environmental impact of geological and geophysical techniques in the Mid and South Atlantic Outer Continental Shelf. We've evaluated the activity level based on permit applications that the Bureau has received since about 2009 for permits in this area. We've been holding them in abeyance because we don't have a review like this that we've carried out in this area that was oil and gas leasing and seismic activity that was carried out in these -- in the late '70s and early 1980s, but nothing since then.

The EIS ultimately will be used by our agency to make a decision by the Secretary of the Interior and

also for other agencies that have responsibilities under environmental law. They will use the analysis that's in it that's part of it for their decision that they have to make for the resources they are responsible for.

The proposed action here is to authorize geological and geophysical activities that are needed to support the three areas that the Bureau of Ocean Energy Management manages. They would be oil and gas, renewable energy and marine minerals, generally sand that's used for onshore coastal restoration or beach -- nourishment.

On this slide here, you can see the South Atlantic planning area, this large tract, and the Mid-Atlantic planning area. These are the boundaries that have been established. This line here -- this line here -- this line here is the edge of the exclusive economic zone for the United States of America, extends out from shore 200 nautical miles. All of these waters and seabeds inshore from that line belong to the United States.

In -- on this map of this scale, you won't see that the state waters here extend out from shore to three nautical miles, and all of the states have state waters extending out for that distance. This line here a little less distinct is 350 nautical miles, and it is the edge of the extended Continental Shelf Under the

United Nations convention of the Law of the Sea. There are means by which the United States could lay claim to this area between 200 and 350 nautical miles. It has not yet done that, but we are including this area in our evaluation if and when the United States decides to pursue this region being exclusive territorial waters for the country.

The types of activities that are involved -- geological activities involve a coring -- shallow test drilling. Shallow test drilling is less than 500 feet deep with -- stratigraphic tests are deeper than 500 feet. These are wells that are drilled to exam the stratigraphic layering of the rock there. They're not exploration wells, and if anything is discovered, you cannot produce from it, because there's -- there's no lease that's involved. You cannot produce oil or gas without a lease on Federal land.

Geophysical activities involves two and three-dimensional seismic surveying that involves the use of airguns. Another technique is controlled source and electromagnetic surveys. That's a industry technique to examine the gas and fluid content for rocks at depth. High-resolution geophysical surveys are geoengineering in nature. They're used for preplanning, the installation of structures on the bottom of the sea to

examine geoengineering properties, the strength of the sediment, whether you have falls, whether you have gas pockets, things of that nature.

Multibeam echosounders are used to establish -- sidescan sonar is used for examining the nature of the bottom, whether you have hard bottom conditions or you have a sea wreck -- shipwreck, for example.

Also at issue would be gravity and magnetic surveys that are -- that tend to be run at the same time that seismic surveys are run. Impact-producing factors are a term of art in NEPA, National Environmental Policy Act, that talks about -- or that refer to stresses on the environment for the proposed actions. You have routine operations. These would be the things that you could predict based on the nature of the techniques that are involved, seismic airguns, for example, and the electromechanical sound sources that I mentioned on the previous slide.

Aircraft noise and traffic refers to the support services that onshore operators provide to ships that are working offshore. These large boats require crew changes. They require certain types of equipment that have to be sent out, and we examine that as an impacting factor as well.

Drilling and coring involve operational waste.

When you drill into the seabed, you pull up rock cuttings that tend to be discharged on the surface of the sea -- the surface of the seabeds. Seafloor disturbances, that would be any touching of the bottom, bottom sampling, drilling and coring, placement of anchors, cables and -- sensors.

(Whereupon off the record.)

BY MR. BJERSTEDT: It's a bit distracting, but I'll carry on.

The onshore base support are activities that are conducted on land that are necessary to support activity on the ocean. For example, boats have a place that they berth. They have a place that they obtain supplies from, and, of course, people -- working on the ocean, they have to live somewhere on land, so that's an aspect of onshore activity that's supporting offshore work.

Traffic and noise by vessels, exclusion zones that are necessary for safety or for observation of endangered species -- and also ships generate waste when they're on the ocean and trash, and debris either by the ships themselves or as a consequence of the operation -- any operation on the water has to be aware of trash and debris.

Accidental events are those things that are accidental. They're -- in our case -- we're talking

about ships on the water. We are talking about accidents that could take place where some fuel could spill on the water or into the ocean, and we're -- we're not talking about producing oil and gas. We're not talking about pipelines. We're not talking about anchors. So we're not talking about oil spills. We're just talking about this -- activities and an accident that could result from it, which would be a small fuel spill from a vessel.

The resources -- we looked at benthic communities, fish and fisheries, marine mammals, sea turtles, coastal and marine birds and protected species that are a part of many of these populations.

The socioeconomic issues would include archaeological resources. The Atlantic seaboard is an area of intense historical activities with -- with humans, lots of shipwrecks that are -- that are out there. Marine protected areas can refer to areas designated under law or a national marine sanctuary. In the Mid-Atlantic, we have the Monitor National Marine Sanctuary, and in the South Atlantic, we have Gray's Reef that's been designated. These are special places that have been designated in law that we have to account for in our evaluation.

Human resources and land uses I mentioned, and

other marine uses would be the large military components that tend to use the surface of the water and below surface -- range complexes that are off the Mid-Atlantic and the South Atlantic, virtually the entire seaboard has military range complexes there. We -- we have to analyze all our activity in the context of those already authorized activities.

The heart and soul of an environmental impact statement are the alternatives that are created that are part of the evaluation. For -- for our -- our EIS, we -- we have alternatives. We constructed them based on existing regulations that the National Oceanographic and Atmospheric Administration has designated along the East Coast for the protection of the Northern Right Whale during certain times of the year that they transit through these areas. NOAA has recognized vessel speed restrictions in certain parts of the Atlantic seaboard area. I'll show you a map for that.

What we're saying for Alternative A is that during the periods of the time that National Marine Fisheries recognizes vessel speed to be reduced that we would restrict airgun activity from those same areas.

And also a component for Alternative A would be the protective measures that have been used to -- develop in the Gulf of Mexico over many years of

practice. They involve the procedures for starting a survey or conducting a survey and under what conditions a survey would be terminated. We have vessel strike avoidance. We have guidance. We have marine protecting -- marine observers that are authorized and trained to be observing marine mammals on the ocean that are constantly watching while surveys take place. Also marine trash and vessel -- trash and debris awareness is a component of the guidance that we use in the Gulf of Mexico.

What we're saying for Alternative A, we incorporate these areas that are under known regulations and also include the protective measures that have been recognized and used in the Gulf of Mexico. In some cases, there are some modifications that are required, and they are explained in the document.

For Alternative B would be -- a philosophy for it is that we take all of these protective measures for Alternative A, incorporate them into B, but also expand some of these marine protected areas. These time/area closures is what we would call them. I will be referring to them that way as I proceed -- or to add additional types of mitigation to the standard mitigations that we use in the Gulf of Mexico, expanded time/area closures for the Northern Right Whale, a closure area for the

nesting sea turtles off of Central Florida, separation between simultaneous seismic surveys, which is not part of Alternative A, and for Alternative B, required passive acoustic monitoring.

This is a technique that employs sensitive hydrophones in the ocean to listen for the characteristic sounds of marine mammals underwater. If you have marine mammals at the surface, you can see them by observers on a boat, but if they're underwater, you don't really know if they're there. This is a technique that would -- your chances of understanding or knowing whether marine mammals might be in the area.

Alternative C is a requirement from -- for a environmental impact statement. It's a no action alternative. It simply says there's a proposed action. Now, what if that proposed action doesn't take place? What are the environmental impacts from that decision? And for -- for us, since we have no oil and gas activity in the Atlantic and we have not had -- for a very long time, we've constructed Alternative C to be a no action alternative, meaning that we wouldn't allow any activity of that -- of this nature in the area for -- for seismic testing, G&G activities.

For the renewable energy and marine minerals programs, since these are already authorized under

current regulation or statute, we would say they can proceed because they can come to us now with an application or request for a lease for renewable energy project and we would process it. So the nature of Alternative C is examining whether something that hasn't happened in this area is allowed to go forward as opposed to stopping something that's already authorized. That's how we constructed this particular alternative.

UNIDENTIFIED SPEAKER: Sir, can I ask a quick question as a point of clarification?

BY MR. BJERSTEDT: If it's a short, informational question, yes.

UNIDENTIFIED SPEAKER: You mentioned that Alternative A, that those restrictions would only be for airgun surveys.

BY MR. BJERSTEDT: Yes.

UNIDENTIFIED SPEAKER: -- does Alternative A not apply to high-resolution geophysics?

BY MR. BJERSTEDT: Alternative A, the closure areas do not apply for high-resolution geophysics, no.

UNIDENTIFIED SPEAKER: There would be no scheduled closures for high-resolution geophysics?

BY MR. BJERSTEDT: No.

UNIDENTIFIED SPEAKER: Okay. Appreciate that.

BY MR. BJERSTEDT: This area here offshore,

the -- Jacksonville to New Hampshire is the critical habitat for the Northern Right Whale. It extends down the coast of Florida to the other boundaries of the South Atlantic planning area designated by NOAA.

Critical habitat is a special place that's important for the viability of the species, and for the Northern Rights, like many whales, they summer over New England states, and during the course of the year, they migrate down the shoreline into this area and they tend to have their calves and -- and -- and feed their -- their calves there. Then they come back to the northern area as the course of the year progresses.

These areas that are identified with color here, this orange one is the southeastern seasonal management area that NOAA has recognized in their vessel speed restriction regulation. And in yellow is the Mid-Atlantic seasonal management area recognized by NOAA. You can see where they -- these tend to be areas where the whales are concentrated in their migration. There are whales through the whole area, but they concentrate along the shoreline generally in a belt that extends from shore up to 20 nautical miles. That's where they concentrate.

The areas that have these small cuspid colors are offshore major estuaries or bays that have a lot of

vessel traffic, so NOAA is saying during this period of time where there might be a high probability of whales transiting through the area, slow down.

What we're saying for Alternative A is that -- no airguns in these regions during these periods of time. For Alternative B, I mentioned that we expanded some of these area closures to the south of the southeastern seasonal management area. This band from shore out to 20 nautical miles -- also we filled in the areas that are discontinuous along the coast here, so in effect, what Alternative B is proposing is to have a continuous band from Delaware Bay all the way down the shoreline, 20 miles from shore all the way to 20 miles out to Cape Canaveral that would be restricted from airguns during those times of the year that are shown on the map.

For Alternative B, we also recognize that offshore Cape Canaveral is a well-used area for Leatherback and Loggerhead sea turtles. They come ashore, lay their eggs. There are tens of thousands of nests that are reported from these areas by observers, and we're saying that this band from shore off to ten nautical miles, those airgun act -- activity in this area during the period of time that these turtles are coming ashore, laying their eggs and as their hatchlings

are emerging from the sand and working their way offshore.

What you'll see in the document, if you open up Chapter Two and look at Table 2-2, this is a good way to see a roll up of the evaluation that we've done. What you'll see on the table, this is just a sampling -- all of our effective resources along the left hand margin and the impacting factors that correspond to them, and then Alternative A across the top -- and what you've got here is a matrix that uses what we call significant criteria that are qualitative descriptors for a level of impact for that particular resource for that particular impacting factor. They range from negligible, minor, moderate and major. Those are all defined in the early sections of Chapter Four exactly what those words mean. We can't -- we can't place a quantitative limit on them, but we try to define them as best we can qualitatively.

All of the resources that we've looked at for evaluation, none of them for any impacting factor reaches a level of major. It's something less for all of them. It's either moderate or something less, and many, many of them are negligible.

While an EIS is in progress, we conduct consultations that are required by environmental law, which would be Endangered Species Act. We have

consultations with Fish and Wildlife Service. We have Marine Mammals Protection Act, in consultation with NOAA Fisheries about that, and these are conducted in parallels, and they'll -- if all works well, they intend to be finished by the time the EIS is done. They are beginning at this point, now that we have a draft EIS on the street. We can begin these consultations.

The next step in -- showing you on the bar graph are -- are comment periods in April and May. Following that, we'll take comments from everyone that we received -- people like yourself. Federal and state agencies can revise the document. We use comments to constructively modify what we propose, because all the time, good ideas can come from anywhere. We'll revise the document and prepare some recommendations for management -- are mentioned that the consultations are taking place all the while that the EIS is being finalized, and at the end of it, we have a record of decision. That is a bulletin in the Federal Register that reports what is the decision based on this environmental analysis that has been done. We're planning on having that done before the end of -- of this year, in December.

I mentioned that the comment period closes on May 30th. We can receive your oral comments here, oral

testimony or anything in writing that you wish to provide. We have a dedicated e-mail address, ggeis@boem.gov. You can send comments to us in that way. A draft of the EIS is available on our website, and the materials that you've collected coming in reported where you can go to find that. If you want to send us comments by US post, you can -- an address there which is also on the materials that are available outside on the desk.

And in closing, I would mention that we've spent more than a year preparing this evaluation, and just so there's objective evidence that it exists, there's two volumes right here. It involves some state of the practice modeling for the noise in the sea caused by this instrumentation, airguns electromagnetic -- electromechanical sources, and it can be rather complicated.

What we ask of folks who wish to make comments is to take a look at it and formulate your own opinion as to what you -- what you believe and what you think -- that we've done here, because ultimately this will be a decision document for the Secretary of the Interior to use to decide what we're proposing here.

The last thing I would mention is that the -- this evaluation was directed by the Congress in -- appropriation language in 2010. Because we had permit

applications in hand from industry and no way to process them, the Congress told us and authorized us to conduct this evaluation. So it's rather -- it's a directed study directly from -- Congress, so I probably should have mentioned that early on, but it's important to know it's not something that we just decided to do. It's something that we were directed to do because industry has expressed interest in the area based on the permits that we have been receiving.

And with that -- with that, I'll have -- will open the floor to comments, but before I do, I want to state some guidelines for fairness. Our goal is to allow comments from everyone who is here who signed up to speak until we're done today. Federal or state representatives and other elected or appointed officials will speak first with no restrictions. We ask the members of the public to police themselves to a limit of three minutes.

When all who wish to speak have spoken, we will open the floor again for people who wish to amend their comments or people who haven't signed up that want to say whatever they want to say.

We're here to receive comments on the draft document. If you comment on anything else, it's really not serving our purpose in being here to help us revise

this document. We ask that people that make comments address the folks at the front of the room, address us as opposed to addressing other people in the audience, and if you are speaking form notes, the court reporter would appreciate a copy of your notes, or if you can just -- when you're finished, if you can give them to the court reporter, it will help her make sure she has an accurate record of what's happened here today.

And with these guidelines, I can call the first speaker, Newer Hanover County Commissioner Jason Thompson.

(Whereupon off the record.)

BY COMMISSIONER THOMPSON: -- thank you for allowing me to speak. I am Jason Thompson, local elected official. I'm currently New Hanover County Commissioner. I served two terms as a Wilmington Council member.

I prepared my comments. I don't want to miss anything, so I'm going to read -- thank you for this opportunity to speak today. I'm here to represent the interests of my community and to publicly support the proposal to conduct seismic studies of the Atlantic Continental Shelf --

(Whereupon off the record.)

BY COMMISSIONER THOMPSON: I am here to represent -- this is a long overdue activity that is

also an important step forward to developing our domestic oil and natural gas resources.

Energy development is a proven economic generator that will also increase our nation's energy security. Current estimates of the Atlantic OCS offshore resources are 3.3 billion barrels of oil and 31.3 trillion cubic feet of natural gas. These estimates, however, are over 20 years old. They're derived using antiquated technology. I was in elementary school when some of this data was collected. These estimates, however, don't change the facts.

New technology to analyze, explore and produce oil and natural gas will increase the amount that we can recover, and, therefore, the energy to supply our growing demands will improve.

North Carolina is a state whose economy is driven by agriculture, aerospace, technical markets, research and tourism, and as such, oil and natural gas will help North Carolina's industrial transportation and distribution. It'll power factories and offices that are used as a feedstock for thousands of products which are integral to North Carolina businesses, including computers, plastic, composite materials and fertilizers.

Increasing domestic production of oil and natural gas would provide North Carolina's economy with

stable, reliable sources of energy. Atlantic OCS exploration and development would also have significant positive effects on our state's economy by bringing new jobs and new revenue.

According to a recent -- study, opening up Atlantic offshore areas that are currently unavailable could bring more than 35,000 jobs to North Carolina. These jobs would not be limited to oil and natural gas production -- oil and natural gas development but jobs created indirectly by those companies that supply equipment and other support services both offshore and onshore as well as to construct the infrastructure required to drill offshore.

In addition, offshore development could generate much needed revenue to fund critical services, including roads, environmental conservation and education -- according to a -- study, nearly four billion dollars in revenue -- four billion dollars in revenue could be generated for North Carolina for 2012 -- 2030 if offshore development were allowed to take place in areas that are currently off limits.

It's evident that oil and natural gas development is beneficial to our nations and to our state, but we need to begin now. We need to understand that resources that are available -- but more

importantly, we need to begin leasing the land for further exploration and development. The Federal government is currently indicating that leasing in the Atlantic OCS will not be possible until we have more data on potential resources. This will be a major roadblock to the entire process, because without leases, companies -- companies would not be able to explore -- for and develop these valuable offshore resources, stymying the benefits additional energy, jobs and revenue that offshore oil and natural gas developments will bring.

Thank you again for the opportunity to comment, and please allow the seismic studies to move forward as soon as possible and advance the leasing process on the Atlantic Outer Continental Shelf so our nation can strengthen our energy and economic security. I appreciate your time. Thank you.

BY MR. BJERSTEDT: Thank you. Robert Greer.

BY MR. GREER: Thank you. My name is Robert Greer. I'm not an elected official. However, I was a county commissioner in this county for 21 years up until about a year ago -- lifelong resident, owned a small business for a number of years, enjoys the water, enjoys the environment, but I as an individual am tired of us being held hostage for our energy needs.

I think it's imperative that we move forward with this exploration at least to see what we have. I think if we can find out these resources and then possibly use them, our demand and cost of energy will go down just when they do that.

I have a small boat, 115 horsepower motor on it. Right now, to fill up the gas tank, it's about $300. I used to enjoy fishing a lot. I have fished a lot. I now enjoy taking my grandchildren out, enjoy the water, but at $300, it gets pretty expensive, so you can imagine what -- the economic effect that has on our region if people can't even afford to put gas in their cars to get here, people -- I think twice when I go out to eat now. I used to say well, now it's going to cost X dollars to buy a meal. Now I figure in the cost of the gasoline. The gasoline -- it cost me $8 to come here today just to speak, so I think it's imperative that we -- that we get a handle on this.

We think about the revenue that can be generated. As a county commissioner, we would rely -- we would -- the state would be hard up for money if they would put that responsibility on the local government. We would be responsible. They put more responsibilities on -- on local government without the dollars. With the royalties from gas, from all the jobs that are created,

I think it's a -- it's a no -- a no-brainer to do this, and I strongly support it and hope you certainly move forward with haste to get it done.

Thank you for allowing me to speak.

BY MR. BJERSTEDT: Before I call the next speaker, may I ask that folks don't demonstrate and clap? The reason for that is that it might intimidate people who may wish to speak and might not speak otherwise.

Bill Kopp.

BY MR. KOPP: Thank you for being here today and having me to speak. My name is Bill Kopp, and I'm a lifelong resident of this area. I have been an elected official, but I am not today.

I'm here today to represent my nine grandchildren. If we do not start today exploring our natural resources, we are going to be behind the eight ball for our future. As the speaker just said, I am tired of depending on foreign countries to supply our needs. We need to use our own natural resources.

I do not represent big oil, big business or big anything, but I know that knowledge is powerful. These studies, once they are completed, will give us the opportunity to determine if we can use our natural resources, and only then can we have that intelligent

discussion.

Thank you for letting me speak.

BY MR. BJERSTEDT: Jason Thompson.

BY COMMISSIONER THOMPSON: You want me to go again?

(Whereupon off the record.)

BY MR. BJERSTEDT: Tom Neugebauer.

(Whereupon off the record.)

BY MR. NEUGEBAUER: Thank you. Good afternoon. I timed this, and it was five minutes, so I'll -- I'll trim it back as I -- I read through it.

But good afternoon. My name is Tom Neugebauer, and I am with TGS-NOPEC Geophysical Company and here today representing the International Association of Geophysical Contractors, the IAGC. And the IAGC is the international trade organization that represents the industry that provides geophysical services and energy to the energy industry, including both conventional and renewable energy sectors. And as pointed out by -- by the BOEM, the IAGC members have expressed interest in conducting geophysical activities on the Atlantic OCS.

So someone, you know, would say why the need for this geophysical data -- geophysical data. Geophysical surveys are key tools used in oil and natural gas exploration and also with the siting of

renewable energy facilities. Geophysical data is critical to the successful discovery and efficient development and production of oil and natural gas.

When applied early in the exploration process, geophysical data aids exploration and production companies in focusing their analysis and illuminates the most prospective areas for future oil and natural gas exploration. This also allows for the elimination of -- of areas that are unlikely to be prospective.

Geophysical data is also critical for the development of renewable energy, providing important key data required to site renewable energy facilities and design a foundation of structure that will be required for the development of renewable energy.

Advancements over the last ten years in data acquisition and processing technology have resulted in fewer dry holes and a smaller exploration, development and production footprint. I have with me today seismic data examples that illustrate the advance in seismic acquisition since 2000. The majority of the Atlantic OCS seismic database was acquired during the mid '60s to late '70s.

Regarding the position of the IAGC and the draft PEIS, of the three alternatives listed, IAGC supports Alternative A, the proposed action which allows

the greatest coverage using deep penetrating seismic and includes seasonal closure areas for the Right Whale. We do not support a 40 kilometer separational 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 Western and Central planning areas of the Gulf of Mexico include this mitigation measure as a condition of permit approval, it was not developed, however, using any scientific or anecdotal evidence.

We believe the PEIS should also be expanded to include the North Atlantic planning zone -- planning area. Exploration and production companies need geophysical data that would be used to tie past and current production data from offshore Nova Scotia to the US Atlantic basins. Without this new data, there will be a very significant gap in the regional work that exploration and production companies will want to perform.

The incremental cost and time to extend the PEIS to the North Atlantic planning area would be minimal and would 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 and production.

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 purpose of acquiring non-exclusive seismic data which would be licensed to exploration and production companies as they develop a better understanding of the hydrocarbon resource potential in preparation of pending lease sales.

Although the Atlantic PEIS will pave the way for future seismic activity in an area of great interest with the exploration and production companies, without any planned leasing in next five years, the likelihood of seismic contractors investing in non-exclusive seismic data, seismic acquisition is very uncertain.

In meeting environmental challenges, our industry conducts operations globally in a variety of environments. In particular, the geophysical industry has 50 years of experience in the US Gulf of Mexico OCS and 40 years of experience in the US Arctic OCS. During

that time, there has been no scientifically supported evidence that routine seismic surveys result in population level impacts for any marine mammal species.

Our industry routinely employs operational practices which protect whales, dolphins and marine life. With these appropriate risk-based mitigation measures, we feel that seismic surveys have and will continue to be undertaken with little or no biologically significant impact to marine mammal populations and to marine life in general. In addition, it is important to remember that seismic surveys are temporary and transitory and use a low-frequency, short duration source signal.

In conclusion, the IAGC values the stakeholder process and we 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 today DVDs that explain modern marine geophysical data acquisition, underwater sound and the measures the geophysical industry implements to ensure minimal impacts of our operations on the environment. This information is available for BOEM and for those in attendance today.

IAGC wishes to again express -- 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, and as previously mentioned, IAGC will be submitting written comments as well.

I thank you for the opportunity today.

(Whereupon off the record.)

BY MR. WALL: -- being here. I appreciate it. My name is Marvin Wall, and I was a -- thank you for being here. I appreciate it. My name is Marvin Wall. I'm a school counselor for 25 years and I have a son here who lives in Wilmington -- as well.

In the beginning, I just want to turn the tables on this situation just for a minute, okay? And that is let's say that the dolphins and whales were deciding whether to have seismic testing or not in our neighborhood on land, okay, and they were to set off a stick of dynamite a block away from us. I wonder how we'd feel about that.

Okay. The second thing I want to mention is -- and this is directly associated with these proceedings, whatever I mention -- is what went on down in the Gulf. We would like to say and lots of people say that the Gulf is all fine now and it's all clean, okay? That's not true. There's tons and tons of oil resting on the bottom of the Gulf. There are dolphins down there with

oil in their lungs and their digestive systems. There's lots of oil in the marshlands effecting birds and wildlife there. We have to think about what we're doing before we do it.

The last thing I want to mention is is the environment in general, okay? During March, that was the warmest recorded month in recorded weather history. We have droughts that are occurring all over the earth. We have record rainfall that is occurring in other places. The bottom line is we have to stop pouring carbon into our atmosphere. If this is just the beginning, what will it be like in ten or 15 years from now?

We need clean energy sources. We could have wind off our coast and we could have thousands and thousands of jobs manufacturing the parts to the turbines right here in North and South Carolina. We would have clean energy from wind, not more planet disrupting activities.

This planet is actually speaking to us in clear and unmistakable terms that says change. Change what you're doing or otherwise -- there's a couple little children over here. Their world in 20 or 30 years is going to be a very difficult place to live in.

You have a decision to make. The decision you make will affect the lives of all our children and

grandchildren.

Thank you.

BY MR. BJERSTEDT: Thank you. Jack Spruill.

BY MR. SPRUILL: Good afternoon. Yes, I'm Jack Spruill. I live in Hampstead, in neighboring Pender County, and I'm speaking on behalf of Pender Watch and Conservancy.

Before I get into the substance of my comments, I have two administrative questions for you. First, do you plan to post a transcript of these hearings and all written comments on the website?

BY MR. BJERSTEDT: Part of the file EIS will be a treatment of the testimony that we receive and comments that come in. There will be a matrix in the back of these documents, so we will be tracking what comments were made and how they were dealt with in the document, how we modified the document as a result of that.

BY MR. SPRUILL: Well, I realize that NEPA requires you to consider these comments, but my question is will you post the comments and transcripts in -- in verbatim on websites so all of us citizens would have the benefit of them?

BY MR. BJERSTEDT: That tends not to be a requirement for the NEPA evaluation, and we don't do that. There is a means by which you can receive all that

information if you wanted to receive it under the Freedom of Information Act.

BY MR. SPRUILL: I realize that, but I think the fair thing to do for your agency is not -- drag us citizens through the knothole of a FOIA request and volunteer to post -- and volunteer to post it. I've worked with other Federal agencies on DIS and EIS matters, and they do that.

BY MR. BJERSTEDT: Did you have a comment, sir?

BY MR. SPRUILL: Yes, but I'll ask you to reconsider this and be fair to us and you -- you'll have the transcript. You'll have all the written comments. Please post it on a website and make it available to all of us.

BY MR. BJERSTEDT: We'll consider it.

BY MR. SPRUILL: Thank you. The second administrative comment is the fact that for several years the US Navy considered construction of a 23 square mile sonar range in the Onslow Bight off the general Morehead City area. There was extensive research done on fish and marine mammal and sea turtle movement through that area and the impact of -- of sonar type systems, of scrubee (phonetic) and explosives on those creatures. Well, the Navy decided not to build that range there, but that data exists. Have you made yourself available

of that research?

BY MR. BJERSTEDT: Is that the form of a comment?

BY MR. SPRUILL: That was a question.

BY MR. BJERSTEDT: Thank you for telling us about it.

BY MR. SPRUILL: No. It was a question.

BY MR. BJERSTEDT: These types of instruments are not in the same frequency category as marine sonar.

BY MR. SPRUILL: Scrubee and explosives are, and the fish patterns and the sea turtle patterns and the marine mammal patterns are -- are totally independent of this. It's very good information that should help your document be more complete. Will you get access to that and consider it?

BY MR. BJERSTEDT: Thank you for your comment, sir.

BY MR. SPRUILL: You mind answering my question?

BY MR. GOEKE: If there is pertinent information, if it has a bearing on our proposal, yes, we will look and see if the information is available and if it has bearing on our proposal.

BY MR. SPRUILL: Well, I can assure you information about marine mammals and fish and sea turtles and the impact of explosives and scrubee on them is pertinent to what you're considering, and the US Navy

has it available for your use.

BY MR. GOEKE: Thank you. And we'll look into it, the information -- and see if it's -- to what we're doing. Did you have some -- comments --

BY MR. SPRUILL: I do, but I think I'm entitled as a citizen to ask questions about the process, am I not?

BY MR. GOEKE: You are, indeed. We have a lot of people here who can answer your questions.

BY MR. SPRUILL: Well, that's why I'm asking them.

BY MR. GOEKE: Okay. What we would like -- what we're trying to do at this point is to get comments directly related to the proposed act and EIS that we've prepared --

BY MR. SPRUILL: The availability of extensive information in the US Navy is very relevant to what -- what you're considering here.

BY MR. GOEKE: Yes, sir, you're right. You're right, and a lot of -- is top secret information, too. We will look to see if the information is available and we will make a determination as to whether it pertains to our proposed action --

BY MR. SPRUILL: Well, it's available to me as a citizen. I once held a top secret clearance, but I don't

now. So if it's available to me, I assume it's available to your agency.

BY MR. BJERSTEDT: Okay. Thank you.

BY MR. SPRUILL: You're very welcome.

The -- the position of Pender Watch and Conservancy is to recommend Alternative C. We realize that this proposed activity under this EIS is information gathering, and it's pretty hard in anything you do in life to turn your back on better information. However, the fact is developing this information is costing us all billions of dollars, correct? And we believe that the bottom line of -- let's assume that reserves are found and they're -- they're -- appear to be economically feasible is that to go forward with oil and gas exploration off the North Carolina coast would not be good public policy.

Before I unfold the reasons why for that, I'd like to point out two flaws in the slide presentation you just gave.

BY MR. GOEKE: Sir, --

BY MR. SPRUILL: That's a comment.

BY MR. GOEKE: Sir, you are limited to three minutes.

BY MR. BJERSTEDT: If you'd like to amend your comments after everyone has spoken, you're free to do

that.

BY MR. SPRUILL: Okay. Will you allow me to point out the two errors in your slide before I have to sit down?

BY MR. GOEKE: If you do it quickly, yes, sir.

BY MR. SPRUILL: I will, indeed. I'll do 'em quicker -- stop interrupting me. I'll do them even faster.

Under Alternative B, you mentioned sea turtles nesting on the Central Florida coast. Extensive numbers -- I don't know how many hundreds of sea turtles of all species in the Atlantic range nest on the North Carolina coast from Hatteras southward. It's not just a Central Florida issue.

You mentioned the Northern Right Whale spawning off Florida. They also spawn off the Southeastern North Carolina coast, not in the numbers they do off Florida, but they give birth -- I'm not -- sorry -- spawn -- they calve off the Southeastern North Carolina coast.

And I'll pick up with the rest of my comments when I'm allowed to at the end. Thank you for listening.

BY MR. BJERSTEDT: Carina Barnett-Loro.

BY MS. BARNETT-LORO: Hi. I'm Carina Barnett-Loro. I'm here today on behalf of the 22,000 members and supporters of the North Carolina Sierra

Club. Thank you to Mr. Goeke and to Mr. Bjerstedt for the opportunity to speak regarding the draft PEIS for Atlantic -- geological and geophysical activities.

We at the Sierra Club believe unequivocally that seismic surveying for oil and gas off the Atlantic coast will harm marine life and fisheries and will not solve our energy problems. The people of North Carolina will be much better served if this administration stops allocating time and resources toward oil and gas exploration and instead focuses on the development of clean, renewable and significantly less invasive offshore wind farms.

While the oil and gas industry may want the public to believe that testing and drilling offshore can be done in an environmentally sensitive manner, we know that's not the case. The Sierra Club stands opposed to seismic testing in its own right, but also as the first step in a series of processes that collectively wreak havoc on the environment and public health of our people at every step.

From the seismic testing which this draft EIS specifically addresses, to potential blowouts during drilling as we saw just a few years ago with the BP Deepwater Horizon disaster, to explosions during the refinery process, as we saw last month in Memphis, to

massive spills during transportation and piping, as we saw with the Exxon Valdez and Yellowstone just last summer, to the millions of tons of carbon dioxide and thousands of tons of particulate matter that combustion of oil creates every day -- as this administration well knows, seismic testing has serious impacts on marine species. In fact, just last month, you called for protecting -- protecting the Gulf to be -- in causing the deaths of thousands of dolphins in the Gulf of Mexico. I'm sorry -- dozens of dolphins in the Gulf of Mexico.

Compressed air exploding underwater every second for days, weeks, even months at a time destroys whales' ability to communicate, disrupting their feeding, migration and breeding patterns. Here in North Carolina, endangered Right Whales, but also Sperm, Humpback, Pilot, Finback -- and Finback Whales as well as Bottlenose, Short-Beak and Atlantic spotted dolphins, among others, all migrating through the waters off our coast, by this department's own estimation, seismic exploration will injure up to 138,500 marine mammals and seriously disrupt their vital daily activities.

There are only about 400 North Atlantic Right Whales left in the world, and under the current proposal, seismic testing could take place right on the

edge of known calving grounds, filling it with disruptive blasts that can travel for hundreds to thousands of miles. The sole habitat protection that this administration has proposed in regards to endangered Right Whales is -- inadequate and needs to be addressed.

In addition, Loggerheads, Green, Leatherback, and even Kemp's Ridley sea turtles migrate through and nest along our coast in North Carolina. As someone who's grown up here in North Carolina and lived my entire life here, I've had the privilege of watching those turtles hatch and be rehabilitated and released again. And impact on some of the seismic testing on sea turtles is not as well-documented as on marine mammals, but turtles are certainly able to hear noise, and their predator avoidance instincts depend on their ability to detect tiny vibrations underwater, which could be overwhelmed by seismic testing blasts.

Airgun blasts have also been documented to displace commercial fisheries thousands of square miles from where the test occurred. Fishermen in parts -- fishermen in parts of the world where seismic testing is occurring have already begun to seek compensation for their losses.

We recognize the administration's desire to

develop secure and domestic sources of energy, but seismic testing for offshore oil and gas that could ultimately lead to drilling off of North Carolina's coast is not the answer. North Carolina has the best offshore wind resources of any state on the East Coast, and a shift in focus of this Bureau from dirty, harmful and non-renewable fossil fuels toward clean, abundant and renewable alternatives is not only prudent, but environmentally and economically beneficial to the people of the State of North Carolina.

Where offshore seismic testing and drilling for oil and gas would put tourism, fishing jobs and our -- our delicate marine ecosystem at risk, offshore wind development would create thousands of permanent jobs, reduce pollution, and even benefit ocean life through artificial reef creation.

For the members and supporters of the Sierra Club that I represent today as well as for myself, the choice is clear. We want offshore wind, not offshore drilling in North Carolina, and we call on the administration to choose Alternative C, the no action alternative, keeping harmful seismic testing operations away from our coast and maintaining the moratorium on East Coast offshore drilling beyond 2017.

I thank you again for the opportunity to submit

these comments, and I'm going to leave you with a copy of these comments. Thank you.

BY MR. BJERSTEDT: Thank you. Mike Brown.

BY MR. BROWN: Good afternoon. My name is Mike Brown, and I'm here representing the Southeast Energy Alliance, the Southeastern Chapter of Consumer Energy Alliance, a nonprofit, nonpartisan group dedicated to expanding dialogue between energy -- sectors, ensuring balanced national energy policy. I am pleased to be here today, and I thank you for the time to speak. Considering that 30 years have passed since the last estimate of Atlantic OCS energy resources were completed, we must allow for seismic studies to be conducted in an environmentally friendly manner so that proper resource assessments can be made to support future lease sales. With the availability of newer and better seismic exploration -- that resulted in the current estimates of oil and natural gas resources will change.

The latest technology will allow for development of resources that were previously thought unrecoverable as well as locating new resources and new location. In fact, further exploration has led to increased resource estimates in parts of offshore Alaska and the Gulf of Mexico, where oil estimates increased by 400 percent and

natural gas estimates doubled between 1995 and 2003.

Quite simply, there is much for us to learn about the energy resources contained within the Atlantic waters, and we must begin that process now. We must recognize the tremendous economic opportunity that safe and responsible offshore energy exploration presents before the citizens of North Carolina and the nation at large.

According to a 2009 report -- 2009 from the Southeastern Energy Alliance, oil and gas development off North Carolina could add approximately 659 million gross domestic product annually, generate almost 150 billion in revenue for Federal, state and local governments, as well as create thousands of jobs in the state. If current and Federal laws were amended to allow for royalty revenue sharing, the state could receive up to 577 million annually from offshore exploration production. Without a cohesive recent strategy for the Atlantic, there is little incentive for the industry to collect seismic data and move us forward.

In conclusion, SEA feels that with the appropriate mitigation measures, seismic surveys can be undertaken with little or no impact to marine life. As such, we hope the process surrounding the development of PEIS moves forward expeditiously so that the essential

data that -- can be available as soon as possible to support future lease sales and ensure development -- we thank you for your time and your work on this project.

BY MR. BJERSTEDT: Thank you. Dan Cameron.

BY MR. CAMERON: I just want to say thank you for the opportunity to be here. We really appreciate it.

One thing that I'd like to clarify right away is there's no dynamite that's going to be used offshore, is that correct?

BY MR. GOEKE: Yes, sir.

BY MR. CAMERON: Okay. So there will not be any dynamite explosion, any of that in our vicinity at any time in the --

BY MR. GOEKE: No.

BY MR. CAMERON: Thank you. I appreciate that clarification.

My name is Dan Cameron. I'm representing the people that had to work today and tonight and tomorrow. I'm not representing anybody offshore. I'm representing the people of North Carolina that work.

Transportation is our lifeblood. Everybody has a car and drives. We have no viable bridge fuel that will get us from oil to alternative fuel. Which everybody talks about solar -- don't have cars that run on solar, don't have cars that run on wind, but there is something

that cars can run on today that are viable that will cut our emissions in half that will cost us half if we go get it, and it's natural gas.

For people to come here and talk about dynamite being used, talk about emissions, talk about wind, talking about solar, I applaud them for being here and talking about it. We have to have something happen in our generation, our lifetime that is going to get us from a bridge between Point A and Point B. Natural gas is that viable source.

There's no way I can run my automobile on wind or solar. It's just not going to happen in my lifetime. Maybe it will. I hope it will eventually, but in the meantime, I have to get to and from work -- I didn't do that to anybody here, so please don't heckle while I'm speaking. That would be so nice. I would like to have a viable energy source that I today can put in my car, pay half the price and have half the emissions. Progress Energy is doing that right now with their power plants. They're going to cut electricity and cut emissions almost by half when it comes to emissions with natural gas.

So please give us an opportunity and the knowledge and the understanding, the information to go out and see what we have available to us. If it comes up

off the floor of the ocean, it bubbles to the surface and dissipates. Natural gas does not leave a blemish on our shoreline. It does not go into a big glob on the ocean. It bubbles up and dissipates. Natural gas is the one fuel that will bridge us to the next level, so please -- it's abundant -- inexpensive. It's fairly safe, and it is going to help us get power and electricity with less emissions, so please give us that opportunity.

The other thing I'd like to comment on just very quickly is we get a lot of print in this area. One of our print media said that y'all are going to use dynamite, so thank you for coming and clarifying that dynamite is not in your program to be used.

The other thing is they comment that you can drill all you want, but it won't lower the price of gas. Oh, really? Natural gas has dropped dramatically over the last few years in price because we've gone and found it and now producing -- it's half the price of gasoline, so when people talk about dynamite being used and you can't reduce the price of gas, natural gas can be reduced and the price can come down dramatically.

So please give us some options instead of just standing and not doing anything, because people that work three jobs, have a family, look after their kids

and their elderly parents, they can't be here today to talk to you. We need somebody to represent us to give us options that we can understand and proceed upon hard facts, not talking about dynamite.

So thank you so much for your time and for being here and for clarifying some of this misinformation that we get in our print media. Thank you.

BY MR. BJERSTEDT: Thank you. Ed Beck.

BY MR. BECK: Thank you. I'm Ed Beck. I'm a resident of North Carolina, lifelong resident of North Carolina, and it was unclear to me, looking at the handout information today and also listening to the presentation, you know, exactly who the applicants were. I just hear the industry, but I'll -- I'll look forward to looking at the EIS and see if it's mentioned there.

And it's also unclear to me who's going to be funding and doing the testing, but we've proposed to do that, so I hope that's also included in the EIS. But, anyway, what is -- what is pretty clear is that it's -- you know, the focus is to -- to get support for offshore drilling and extraction of petroleum product. While petroleum products continue to be a tremendous value to humans, it's time, I think, to look elsewhere. It's come at a tremendous cost, environmental cost and health cost, and it's time -- time to look elsewhere. The risk

of environmental impact -- involving extraction, handling, processing of the product is just too great. We need to be looking and it's time to just be looking at alternatives.

It's also become clear to me that the -- the companies or that -- that further extraction of product offshore here will not result in better energy security to the citizens of this country or this state or this region. What is pretty clear to me is that those products will be sold on the world market to the highest bidders by companies that don't -- don't have -- don't feel responsibility to this country and -- but, anyway, I -- I -- I -- I doubt the claim of additional energy securities that would result from it, so I would support Alternative C. Thank you.

BY MR. BJERSTEDT: Thank you, sir. I might mention just by way of information we have 11 permit applications for 2-D seismic surveys, seven permit applications for magnetic survey and seven applications for gravity survey. During a seismic survey, magnetic surveys and gravity surveys tend to be run at the same time. Those were submitted from nine operators. They're not in the environmental impact statement, but if you wish to provide me with your e-mail address, I can e-mail you back when I'm in the office and send you a

hyperlink to where they are -- the public portions of the applications are posted on our website. They're just not in this document because it's not terribly relevant.

By way -- yes. The question now -- the government doesn't do this work. It allows it to happen by private industry on public land, so it's private industries and contractors that seek the data that are performing the work. They're -- they're paying for it themselves, and they tend to sell it to industry for industry to use for their own purposes, whether they want to express interest in the area or pursue a lease there.

Ann Sullivan.

BY MS. SULLIVAN: I guess I'll hold it, because I'm short. My name is Ann Sullivan. I'm from Goldsboro, North Carolina, and unlike the man that said it costs him $8 to drive down here, it cost me 60.

I would like to opt for option number -- A, and the reason is this. I think that the United States and North Carolina should especially go after all means possible to reduce the price of gasoline and our natural resources, and that includes natural gas. It has been said here that natural gas is the cleanest energy that we have, and it dissipates.

And I have a question for you. I heard someone

say that these things can be -- when you're doing the seismic test, it could go for thousands of miles. If that's true, I think y'all need to turn that technology over to the military so that we can defend this country, because I don't think we have that type of technology that exists today.

Also I wanted to let you know that I'm originally from South Carolina, and these studies used to be called geological surveys with natural resources, and the same test that y'all had done before that had been done offshore and all around this country that showed that we had less resources than what we actually do -- someone else brought up about the studies in the midwest that showed we actually have more oil and gas deposits in the midwest than we ever dreamed that we had, especially in Alaska.

Well, here's a little example -- I'm from South Carolina. This same geological survey that was done 30, 40 years ago showed that there were no marketable resources, mineral resources in South Carolina. Anybody ever heard of Ridgeway, South Carolina? The Japanese came in where there was nothing that would benefit South Carolina and just literally bought the whole town of Ridgeway. They moved 'em out temporarily and they mined these resources -- and it was gold, by the way. All that

gold went to Japan. We didn't get any of it here in the United States.

Not only it -- would it bring down the price of gasoline and our cost of living, it would also help with our national security. We wouldn't have to beg, borrow and steal and bow down to any foreign nation to keep our country safe. And it's all about keeping my grandchildren safe.

And -- and someone was talking about that our way of life would be destroyed for the grandchildren. Well, you know, I have that very same argument. If we don't do this, if we don't allow y'all Option A -- and I think you all ought not to be limited to just where you can do it. I think if the technology exists where it is safe, where we're going to have jobs for this country and it's going to help our way of life, I think we should go after it and go after it full force.

Thank you.

BY MR. BJERSTEDT: Ken Wilson.

BY MR. WILSON: Thank you. Just shooting from the hip a little bit, because your clarification remark at the beginning sort of threw me for a loop -- the document is pretty voluminous.

And to give you a little bit of intro, I work for a firm that has local offices here in Wilmington. We

specialize in beach nourishment projects. We -- that the -- do offshore sand investigation for these types of projects, and our main concern is limitations on the high-resolution geophysics that -- that might come out of this programmatic EIS. And so the way that we've been reading the document, we -- we believe that -- that -- that the same restrictions that -- that apply to the airgun surveys would apply to the high-resolution geophysics.

And we were concerned about the economic impact on local governments that are funding these beach nourishment projects and additional limitations and when they can perform these surveys, so I don't know if there's somebody here in the back from your agency that can talk to me a little bit more about the specifics there, but I guess in general we would hope that as you all continue to modify this document to -- try to tease out and make it a little bit more clear what the specific implications for high-resolution geophysics would be on those marine mineral surveys for -- for beach nourishment sand.

Just, you know, right now, we do a lot of work in the Gulf of Mexico, these types of studies. We do work on the Atlantic coast, and right now when we do these surveys in -- you know, outside of state waters in

Federal waters, you know, on the Atlantic coast, we're asked to abide by the same types of mitigative restrictions that they have for the Gulf of Mexico, so we have marine mammal observers onboard that -- go into mitigative measures that have been -- that have been established in the Gulf of Mexico when we are doing these types of surveys in the Atlantic now.

So just to -- to make sure that it's very clear as to any additional mitigative protocol that might be put in place for the high-resolution geophysics through this programmatic EIS, we would ask for those clarifications to be in the document. Is there someone in the back that I can talk to that's --

BY MR. GOEKE: We certainly can chat with you after.

BY MR. WILSON: Okay. Great. Thank you -- appreciate that.

BY MR. BJERSTEDT: You may also take a look at the executive summary in the document. There is a table there that discusses all of the survey protocol measures and the -- the seasonal closure areas and the technique to which they apply, so that's a good place to go -- executive summary.

Bill Weatherspoon.

BY MR. WEATHERSPOON: Gentlemen, thank you. My

name is Bill Weatherspoon. I'm executive director of the North Carolina Petroleum Council and in that job represent the American Petroleum Institute here in North Carolina.

The work that you are doing is extremely important, and I want to commend you and I want to applaud the level that you have achieved already. We very much appreciate your bringing your series of public hearings to North Carolina so that we can participate in giving you some comments and some input. Thank you.

I would say for starters that are Alternative C is unthinkable. Alternative C would not lead to employment. It would not lead to new government revenues. It would not lead to more safe, secure homegrown energy, so I would encourage you to focus on Alternative A.

Let me say that the data that we have is now 25 to 30 years old. That point has been well made by previous speakers. Frankly, I have lived the last 25 to 30 years in the petroleum industry. One of my first assignments was a meeting on scoping hearing in, of all places, Wilmington, North Carolina in the mid '70s. We talked through all these issues at that time. There's never been a well drilled.

I would say to you that my feeling and my

experience is that voters in North Carolina are growing weary with energy inaction and energy delay, and, candidly, we see that a lot of the calls for studies are really disguised. They are simply a strategy of delay, and that delay has won the day for the last 40 years. And over this period of moratorium -- we could not drill in the Pacific and could not drill in the Atlantic and could not drill in segments of the Gulf of Mexico.

The proof of the pudding is in the data. Imported oil over this period of time increased from 30 percent to 60 percent. Now, 30 percent to 60 percent on any elementary school blackboard is a 100 percent increase, not an increase in jobs, not an increase in revenue, but an increase in the dependency. That was the result of a strategy of saying no.

And what I'm here to tell you with confidence is that North Carolina voters are saying in increasingly dramatic fashion that they support the search for more homegrown energy, more homegrown oil and gas, and 90 percent of the people reflected in our public opinion surveys -- 90 percent of North Carolina voters are saying that they recognize that more oil and gas development will produce and provide benefits to the nation. They understand that there will be more jobs. They understand that there will be more revenue. They

understand that there will be safe, secure energy here.

Now, all of us are creatures on this planet. All of us need to protect our fellow creatures and critters. We need to be responsible and caring. I'm pleased to see the words negligible, minimal and no impact in your Alternatives A and B. I urge you to focus on those alternatives when you bring this plan to the nation.

And for those of us in North Carolina who are totally dependent upon energy from other states, we suspect because of an earlier lease sale that's been referenced from the '70s -- we suspect that when we see a company bid 103 million dollars for one tract -- we suspect that there was some excitement somewhere one day by a geologist about what may lay 40 miles off our coast.

We know that our people need that energy. We prefer to get it here. We prefer to get it through American jobs. We prefer to pay taxes here, and we now know that we need it to be safe, secure homegrown energy.

I think you're on the right track. I hope that you have heard this message in other public forums on this particular issue. I commend you in the direction that you're headed. You have our full support, and I

believe that you have the support of the people across the State of North Carolina.

Thank you very much.

BY MR. BJERSTEDT: Thank you. Bobby Greer.

BY MR. GREER: I'd like to speak again, but I've already spoken -- my name came up twice.

BY MR. BJERSTEDT: That's why I was looking -- looked familiar.

Paul Duval.

BY MR. DUVAL: I was -- back in the mid '70s, '75, '76 -- it says on the water welding -- they done -- done tests down here back then. They found oil and gas, yes, but I ain't saying everybody -- they had -- on the water -- water -- no -- they already -- test out there. They know we got gas.

I urge everybody to say no test or drill on our coast here. We don't need it. What's wrong with going on the land and getting your oil and gas? We don't need it -- out -- the ocean. We need the oil in land took out. We got plenty of oil and gas on the land. Go on the land and get your oil and gas and you won't -- right now, we can't even keep a fish out in the -- I go to -- I've been going out in the Gulf fishing. Now we've got -- to throw 'em back in. There's a -- just a few that we can keep. Black bass, all kind of fish -- we

can't keep. We've got to throw 'em back in, so there ain't no use to go out there no more -- do your drilling on the land, not in our water and ruin our -- that water out there belong to everybody, and oil companies should not be out there putting oil drilling there to ruin our water.

That's all I've got to say. Thank you. We have plenty of natural gas on the land --

BY MR. BJERSTEDT: Jean Hampton.

BY MS. HAMPTON: Thank you so very much for this time. I am a mom. I'm not a politician. I'm not with the oil companies, but I do have a voice, and I am grateful for the opportunity to use it.

I'm Jean Hampton, and I'm from Myrtle Beach, South Carolina, and thank you so much for this opportunity.

My statement is pretty brief. We need information, not just assumptions. We need to protect our national security while safely exploring our natural resources. Other countries from which we are dependent on oil do not respect our natural resources or anything else, including our freedom, which scares me.

I'm a mother, and I would like to be able to hand my daughter a nation that is secure in every aspect. This is much more urgent than protecting our

environment. We need to protect our environment, but we have the technology and the means to do that and still explore our natural resources.

I would encourage you to consider Alternative A in your decision. This type of exploration that we have now and the resolve of the United States to use our own resources will send a global message to the rest of the world. It is time for action, not just more talk, committees and all these things that are going on behind closed doors and lobbying. We need action.

We are Americans. We love our country. We love our resources, but it's time for someone to step up and be the adult in the room and do something productive for our country. This will improve jobs and will bring increased revenue not only to North Carolina, South Carolina, but to every state up and down the Eastern Seaboard, in my opinion.

Other nations are already producing these kinds of viable energy resources, and I don't think the United States of America needs to be left in the dust. It's time for us to stand up and do the right thing.

Thank you so much for this opportunity.

BY MR. BJERSTEDT: Paige Freeman.

BY MS. FREEMAN: Hello -- I moved to North Carolina about four years ago. I moved here with my

husband to raise a family, and at this point now, I'm really questioning if I want to live here.

I know that the seismic testing is a precursor to fracking, and if you guys did find the oil that you were looking for and you chose to perform the fracking -- I know that in Ohio thousands of people are getting cancer there. I have seen e-mails where -- and people can actually light their tap water on fire with a lighter, and that really, really scares me, and I really hope that you guys consider not doing this.

And I'm just going to read some information here. Seismic testing is harmful to the wildlife and fishing economies all along the coast. Airgun booming could disturb and harm the hearing of endangered Right Whales and other marine wildlife. Airguns have been shown to displace commercial species of fish horizontally and vertically in the water column on a vast scale over thousands of square kilometers, and this result has been dramatically depressing the catch rates of species such as cod -- and rockfish across areas as large as the State of Rhode Island. This is leading fishermen in Norway and other parts of the world to seek -- compensation for their losses. This of course, does have an -- impact on commercial and recreational fishermen.

Commercial and recreational fishing off the Mid and South Atlantic -- Southeast Atlantic -- excuse me -- and this is not including New Jersey -- generate about 7.4 billion dollars annually and support over 180,000 jobs. Fishermen in some parts of the world where seismic testing has already occurred, they are now seeking industry compensation for their losses.

We're also receiving information here that we don't need more drilling. Oil and gas rigs have increased 150 percent in -- and the biggest oil companies have saw over a 75 percent jump in their profits just last year alone.

And according to the US Energy Information Agency, which is an independent division within the Department of Industry -- is indicating that fully developing all of our recoverable offshore oil reserves everywhere would lower pump prices by exactly three cents and it would take 20 years to do so, so I know, ma'am, the woman that's sitting next to me, you thought that it was going to make it go -- gas would be less expensive, but that's really not going to happen.

So I really hope that you guys will -- considering -- with what I'm saying. I thank you so much for allowing me to speak.

BY MR. BJERSTEDT: That's the end of the list of

people who have signed up to speak. At this point, if anyone else wishes to speak -- yes, sir. Come up to the microphone and please state your name and spell it for the court reporter.

BY MR. WALL: I spoke briefly before, but you said we could add an addition to our comments.

My name is Marvin Wall, and I have an addition and two points of clarification. The addition is that I am strongly in favor of Alternative C. I did not mention that in my previous comments.

My points of clarification are that I did not say that dynamite would be used in this testing. I merely referred to it as an analogy as to the sound impact that could occur with whales and dolphins. An addition is is that we already have vehicles, the Volt, Nissan -- and others -- coming that run on electricity which can come from solar and wind power.

I just wanted to make those points of clarification. Thank you.

BY MR. DILLON: Thanks for coming. Your -- my name is Todd Dillon, (phonetic) and the information that you guys had provided us is incredibly deep and very detailed.

I'm an automotive enthusiast. I -- I'm also an AMA superbike pro marshal, really involved in

motorsports racing. I race myself. I own a landscape company, and I using fuel constantly, diesel. I'm using regular gasoline. I'm using mixed fuel in a lot of my equipment.

As a landscaper, I go out of my way to find gas stations that sell non-ethanol based gasoline, and in my -- in my two stroke equipment, we have to mix oil, and I'm paying about $7.34 a gallon to run my equipment right now, and I'm just one guy with three helpers, and it's me probably times millions of other guys like me who are spending about seven bucks a gallon to run their equipment.

If there's any way that we could get ethanol out of gasoline -- because ethanol is a solvent, and what it does, it erodes the gas lines in our tanks and erodes the gaskets in our equipment, and instead of having the small equipment repair shops repairing the equipment, they just throw it in the garbage and replace it. That's where we're at now. We're at -- disposable parts with our small equipment.

And, you know, in here in front of a Federal board, I'm just one little guy, you know, and I don't know how many people that I could be representing in front of this microphone -- I can tell you if there's some way -- and I'm an advocate of trying to find

alternative methods of fueling our vehicles, fueling our homes, getting ourselves from Point A to Point B.

I envision some day of having magnetic transportation -- a highway has rails in it, vehicles have magnets in them and they are based on a system that gets our vehicles across just like a trolley, but I know it's a way down the road.

I -- I really enjoy watching a show on Velocity Channel called -- Auto Week covers every single episode of municipalities in the United States that has transferred its garbage trucks, dump trucks and service vehicles to LP. It's already in place, which means at least in the past year with each episode that I've watched, which comes on every week, there's at least 50 cities in the United States that have already migrated towards this method of fueling their vehicles. With that, we already have the technology. It's already here. The engines are already being built.

Progress Energy has said or provided information that with homes that have gas -- from the street to their house, all they need to do is put in a small station. They can plug their car in and compress the gas into the tanks and fill it up overnight, ready to transport the next day. However, with that, we still need more stuff.

I've tried to convert my own home to -- wind powered energy, did my research and discovered that NOAA has a chart that runs the entire East Coast of all the strengths of the wind of sustained mile an hour over the entire course of a year. North Carolina does not have the wind to support windmills offshore. Other states do, but this state does not, based on the geographic information that NOAA has provided us.

So, you know, what drives me crazy more than anything else is standing behind -- sitting behind somebody -- they flick their butt out the window and I look down and the ground is covered in cigarette butts. It's not good stewardship to pollute this planet.

I believe that we have the technology to capture this natural resource that we have off our coast and convert it into uses of our daily life. It's there. We can do it, but we need to utilize the safest practice as possible and go -- thank you.

BY MR. BJERSTEDT: Thank you. Yes, sir?

BY MR. HUNT: -- I didn't plan on speaking, but I just wanted to address -- this information here --

BY MR. BJERSTEDT: Give us your --

BY MR. HUNT: My name's Scott Hunt, a lifelong resident of Wilmington, North Carolina. I'm probably the only person in the room that actually has worked in the

oil and gas industry. I worked in the seismic industry for a number of years -- as a matter of fact, I did some of the last work off of the coast here, using the antiquated equipment somebody referred to. I hope they didn't mean the people operating it, too. I worked in that business for ten years or so every day, and I can tell you firsthand I never witnessed any ecological damage, injury to marine mammals, fish or birds.

The way behind the eight ball on this thing when you -- out, continue the exploration that we started years ago. I'm sure the equipment is much better now. I would love to know where we are with that -- let's find out what's out there and go get it -- the guy who was concerned about the fishing, try the Gulf. Fishing is much better -- they love those offshore platforms. So that certainly can be done without harming the environment. So that's my -- say on it.

Thank you.

BY MR. BJERSTEDT: Thank you, sir.

BY MR. BALLANTINE: My name is Patrick Ballantine and -- may not have made the list to speak.

I just want to speak on behalf of the general public that I believe that this is just common sense, and I appreciate you being here. I want to thank you all for doing this. I understand you're from New Orleans, so

thank you for making the trip up and down the Atlantic seaboard.

I think you'll find North Carolina to be the best of all those states, but we love our environment here, and I'm certainly one that loves the environment. I grew up here on the coast and I've been a big part of environmental stewardship in North Carolina. I've won awards for -- Keep America Clean and Beautiful. I cosponsored legislation in the North Carolina Senate to help the sea turtle hospital receive funding.

You know, again, I think it's a matter of common sense and extreme on both sides -- what we're looking for. No one wants to just go in and have a thousand people drilling holes everywhere and sticking dynamite everywhere. On the other hand, I would hope that no one would want us to go back to the pre-industry age, so let's have some middle ground and some -- I think that's what we're looking for.

It seems to me that you all are being very diligent and reasonable. I don't know enough, but it seems to me that Option A and B are very reasonable. Option C is not really an option. That's just saying no, and no is not an option.

President Obama, I understand, says that he's -- the above energy -- if that is true, and I hope

it is, then we can explore other options. At the same time, we can utilize our own natural resources. I understand also that this is just a first step. I mean, drilling is going to be a long way off. You were directed to do this over two years ago, and your report's not even going to be due for another nine months, and then somebody's got to go through the permitting process and all that, so it's just the first step.

We're trying to gather information and see what's out there, and with this new technology, it makes sense to me that you would want this, because you're not going to have hundreds or dozens of people out there doing something without knowing where something is. This is going to let them know exactly where it is so they can drill and bring something up. It seems to me that that would be better for the environment, not just drilling somewhere where there's nothing.

I also understand that this is not something that's going to be right off our coast. It's -- you know, in living here, I believe you can see 12 or 13 miles from the shore out on the horizon. We're talking about two or three horizons away, so we're talking about exploration out there that won't be seen from inshore. Natural gas is what most people expect is plentiful out

there. So, you know, one of the Exxon Valdez issues that may be brought up I think are not as relevant with all the new technology.

So in -- I just want to say that I -- I believe that this is a reasonable, logical, common sense first step. All it is is information gathering. I trust as a -- taxpayer and a citizen of North Carolina and the United States that you all on the environmental side are going to do the right thing to protect the environment -- and that's what we have to do. I mean, I have -- I saw your presentation -- you didn't even give anything as far as cost/benefit. You didn't say anything about the economic impact and jobs and revenues to the state. Your job is for the environment, and we expect you to -- if you say yes to this to protect our environment, and we assume that A and B is going to allow for the exploration and for the protection of the environment.

I think you can have a balance. I believe that you all, if you do your jobs -- to allow the companies to explore in the right areas, bring the natural resource up, help us create thousands of jobs in this state, bring maybe revenue to North Carolina and other parts of the country and also help us wean ourselves off the foreign oil dependency -- and that's a national

security issue.

So for all of these reasons, I want to say thank you for -- for doing this. I believe you're on the right track. It's just one more small, slow step, but it's a step for common sense, and I appreciate it.

Thank you.

BY MR. BJERSTEDT: Thank you, sir, and I apologize if we overlooked your name in the sign-up sheet. Yes, ma'am?

BY MS. CARMEN: Good afternoon, sir. Thank you for being --

BY MR. BJERSTEDT: Could you state your name?

BY MS. CARMEN: My name is Colleen Carmen. (phonetic) I'm also a -- I agree with what a lot of people are saying, that we should be for -- and using Alternative A or B -- I don't know which one was better, but either one -- but not C. That's not an option either.

I think that there was also in that -- had -- it also had a study in science that we need in this country for college students that are wanting to study more science that will have this going into a science technology and that would create the jobs for the college funds to -- and even give some -- some opportunities for the college level students to get

scholarship programs and that will add to -- the more college fund students that want to go to college, and so we need more science. That will add to science studies, because we are failing in science. We're failing in mathematics. This will also add to that, and we need to have that in our country.

As far as what some people are saying about maybe wind power, I came from a state, Rhode Island, moved down to South Carolina. I'm a resident now of South Carolina, and because I had to move down from Rhode Island, they had the wind power energy going on up there, but it was not working at all. I can tell you, because I was from that state, wind power does not work. It would cost the state over 500 million -- went into bankruptcy. The state had to go from seven percent to eight percent tax. People were not liking it at all. There was a lot of people that were upset about the wind power machines being done up in Rhode Island, so it's not working.

This will work. Natural gas will work. It will work for the country. It will work for the people. The people of North Carolina and South Carolina and all over will need the jobs. You need to have this work. You need to get on this as soon as possible, because more countries may look into it and they may grab that

natural gas before you do or we do and we won't have it. We'll have to be dependent on some other country again if they grab that natural gas from us, so they need to get on this right away before another country gets in on it. That's what we want.

Thank you.

BY MR. BJERSTEDT: Is there anyone -- sir?

BY MR. SWEGO: My name is Al Swego. (phonetic) Several people have talked about the fishing industry, about what this will do to the fishing. Well, I've been a commercial fisherman over half my life, and I've seen a lot of changes in the industry. Over half my family, uncles and aunts and grandfather were all fishermen. The oil industry in the Gulf -- has flourished with oil wells in the Gulf. Shrimpers are doing really good. It has very little affect on the fish that are around these wells.

One thing that I think a lot of people don't realize is that fish are very much smarter than we are in a lot of ways. If they don't like the -- noise or smell or something, they'll move away. They're not going to stay there and be bothered by it -- that was pretty smart. We stand around and complain about it.

I think as a fisherman, I say do it, drill it, get it out of the bottom before somebody else does.

Thank you.

BY MR. BJERSTEDT: Yes, sir?

BY MR. WRIGHT: My name's Curtis Wright, from Wilmington, North Carolina. I wasn't going to speak today.

I have the -- I have the benefit of being on the air for 20 hours a week where I can control the amount of time and anything I want to say on the air, and I'm very -- I'm very fortunate to be able to do that as a broadcaster.

I think there's a point that's been missed here today, and I want to bring it up as just that. I have been asked over the years by the North Carolina Coastal Federation -- I have been asked over the years by the Pender Group -- I've been asked over the years by the Sierra Club -- I've been asked over the years by dozens of educational research institutions, public and private -- I've been asked over the years by small groups that had asked me to be an advocate for studies by some of the elected officials or past elected officials that are here so that we can better inform ourselves where we were going with business and development and issues like that.

What I'm amazed at -- what I'm amazed at is that the issue here today is very simple. We're talking about

going and gathering information. In my previous career, I had an office in the shadow of what was the -- works at Lockheed, one of the most renowned, worldwide renowned research and study organizations as where -- technology of unbelievable and tremendous advances took place.

In our state, we're proud of the UNC system and many other -- institutes we have that are all about study and research, and that's where our decisions are to come from. That's what I'm told by the Sierra Club and all these organizations that come to me and ask me for -- Curtis, advocate on our behalf, because our research, our knowledge needs to be presented to our elected officials so we as a people in this state, in this country can make the right decision.

What I'm amazed at is we are here today debating whether we should go seek knowledge. I am, and I seriously mean that. That's what it's about. The course of human events is always -- unfurled by trial and error. That's what we've learned since we were kids. Well, we're not going to understand trial and error unless we study, and that's what I've been asked to do as an advocate is to please study, then stand up for my research, stand up for what I've learned, stand up for my study, and I have done that.

Even as a conservative talk show host that is often attacked for having a very narrow-minded approach to many issues, I've always stood up for the environment in North Carolina.

This issue's simple. We need information to protect our environment, to protect our people, to protect our economy and, beyond all of that, so that we can move forward as a people. That's what research and knowledge is about, to move forward as a people.

And we live in the greatest state in the United States, and North Carolina has always led the way in research and development -- studied important decisions. I'm proud to be a North Carolinian, very proud, and we need to move forward, and we need to study and we need to do it responsibly, and then we need to be able to make the right decision, an informed decision, not an emotional decision.

So I advocate for what I've always been asked to advocate for, study and research so we can make an informed decision, and hopefully with your help, we can do just that and finally, finally understand where we are on this issue and what's best for our people in North Carolina. Thank you.

BY MR. BJERSTEDT: Yes, ma'am?

BY MS. SPENCER: I appreciate you all being here

today and everybody else that's taken time off to come and support this important issue. My name is Janet Spencer, and I live in Horry County, right across the coast -- right across the state line, rather.

Our unemployment rate in Horry County is over nine percent, and gas prices increase daily, and as those gas prices increase, our tourism decreases, so it affects our overall economy.

These United States of America should not be dependent on foreign countries to supply us with a basic need for gas and for oil, and I strongly encourage that this testing go forward. Anything we can do, if it doesn't lower the price of gas that much significantly, at least we'll be paying that price to the United States of America and not to some foreign country that really doesn't like us a whole much. Thank you.

BY MR. BJERSTEDT: Is there anyone else? Yes, sir.

BY MR. NEUGEBAUER: Just real quick. Tom Neugebauer again -- talking about the comments previously -- just spoke about.

Now, as a geophysicist and being in this business for over 30 years, I've been involved in the acquisition, in processing, in the planning of projects. The data that we have of -- East Coast is just not good

enough to do a proper evaluation of the Atlantic OCS -- the technologies that were used back in the '60s and '70s and then given -- '83 -- that's the last year I remember, maybe '84 -- the -- the type of equipment in those -- the sources were just -- were just not providing us with information that we needed -- we have to understand it's our -- it's our -- it's our responsibility to -- to us now, to our children later, to our grandchildren to really understand the resource potential in the Atlantic OCS.

We really don't know the -- prospects off the coast of North Carolina -- has four TCF of natural gas, four trillion cubic feet of natural gas -- tremendous resource. It probably is -- it probably is more, but what is needed is modern seismic testing. I can show examples from 2000 to 2007 that can show you the lift, and just that amount of time -- we're talking about 2000. That's fairly modern seismic technology, and then we're coming back to 2007 -- seismic data in that same area when we show increase in illumination of subsurface which eliminates the need for drilling -- you want to reduce the risk, drill the least amount of -- as you possibly can in order to achieve the maximum resource potential.

We are now today -- as I speak, we are acquiring

again in that same area another seismic program because we can improve the -- that much better. Just over the last five years -- so here's a region -- in the Gulf of Mexico where in the last 12 years we've acquired three seismic -- seismic surveys which have now -- now benefited industry and also government, because the BOEM uses this information to give the proper resource evaluation because it's their responsibility to the American people, taxpayers to understand what the true resource is for this -- for these hydrocarbons.

So the -- the responsibility is to the United States to really do a full evaluation to fully understand what we have offshore -- is we need to do this, and in order to do it properly, we need to use the most modern seismic techniques, and we have to do it in a very environmentally responsible manner.

The change from when I worked offshore back in the early '80s -- we didn't have MMOs -- or we didn't have passive acoustic monitoring. These are techniques we're using today and actually employ three, four people in a vessel. We use -- to sense -- that are -- are off -- that off the -- off the vessel -- location so that we're not having that degree of -- impact to these marine mammals, and so we have -- we have people actually spending all day visually looking 360 around

this vessel for the -- and if there are mammals within the exclusion zone, the operation is shut down. There are very strict guidelines that the BOEM puts on the industry in putting a seismic program together.

We -- we spend a lot of time working with BOEM on permits, on environmental assessments which will be carried out for every specific program, and today I just wanted to just make that point, that the data we have -- and I have some examples if people -- in looking. It's just not good enough to make that evaluation, and -- and we owe it ourselves to understand fully what resources we do have.

The question of drilling, the question of production, that's another discussion that has to happen, but we have to understand what do we have offshore in North Carolina. What do we have offshore in New Jersey? Questions have to be answered and have to be answered with the best data that we can get our hands on today.

So I thank you for the opportunity.

BY MR. BJERSTEDT: Yes, sir?

BY MR. SPRUILL: I'm Jack Spruill again. Thank you for allowing me to conclude the -- my comments. I promise no more administrative questions.

My reasons for stating that offshore oil and gas

exploration and development is not in the public interest with public policy for North Carolina is based on onshore effects, so that's what I'm going to speak to, not offshore issues, but onshore effects, and this is based on my firsthand observation and knowledge from living in New Orleans for nine years.

During that time period for six years, I did management consulting in the oil and gas industry. For four years, I was a Navy reserve officer assigned to a destroyer, and one weekend a month we made the long, six hour transit to the Gulf down the river and of course back on -- Sunday afternoon, and I did recreational fishing and still do from time to time from south of Houma -- east to the Pearl River. I spent a lot of time in those waters and observed the infrastructure that is necessary in Louisiana in order to support offshore oil and gas exploration and development, and I'd like to give you a thumbnail sketch of that and at the same time for the people that know the North Carolina coast to start thinking in their mind's eye what -- how would this fit on the coast of North Carolina. Would it be a good marriage?

Now a few points about the infrastructure needed in Louisiana and would, in turn, be needed in North Carolina to support offshore exploration and

development. There have to be docking and loading facilities to support large crew boats, mud barges and work boats and storage capacity for the chemicals that are needed in drilling and for the -- the -- drilling the mud.

The boats that come into these -- into these operating facilities are relatively deep draft, and so dredging has to be done to create channels and mooring space for them. Pipelines have to bring the product ashore. Pipelines are almost always laid in canals in shallow water through the marshes. Canals bring in high salinity water into low salinity and freshwater. High salinity kills plants that cannot thrive in that salinity.

When plants die in the marshes and the wetlands, the marsh breaks down. Valuable habitat gets destroyed. The marsh disintegrates, creates silt. The silt goes on top of oyster beds. Oysters smother and die.

Pumping stations and compressors are needed to move the product through the pipelines. Gas treatment plants are needed to do preliminary dehydration of the gas and to separate out the valuable condensate which is highly marketable. Sometimes -- are needed to flare the -- or vent the unneeded or undesirable gasses into the atmosphere or burn them. Storage tanks are needed

for condensate. All this also requires more boat docking facilities and channels.

For oil production, there has to be tank farms of 500 to 750 barrel tanks. Again, more -- boat and barge docking facilities. And, of course, there are occasional leaks and spills, and there are major spills that happen after hurricanes. These large 570 -- 750 barrel tanks will rip loose and roll like crab floats across the water. I've seen that. I know it goes on.

A big issue is boat wake created from work boats and crew boats. These are, as I said, a -- large, relatively fast boats. They have to be all weather -- obviously especially to go, you'd have to be -- to go into the North Carolina coast where we often have much heavier sea conditions than the coast off Louisiana. The wakes these boats create are far in excess of any wakes we see on the Intracoastal Waterway in North Carolina from pleasure boats or from shrimpers.

BY MR. GOEKE: Sir, excuse me. May I ask a question?

BY MR. SPRUILL: Yes.

BY MR. GOEKE: We were listening, because I want to hear where you were headed with this.

BY MR. SPRUILL: Right.

BY MR. GOEKE: None of this has anything to do

with the proposal that we've written our EIS on. Do you have additional comments on the EIS --

BY MR. SPRUILL: Yes, I do --

BY MR. GOEKE: If you could get to those, I would appreciate it.

BY MR. SPRUILL: Could I just make a point? I don't want to be argumentative, --

BY MR. GOEKE: I --

BY MR. SPRUILL: -- but I am the only speaker you have interrupted and said that when people are talking about national security and the economy -- you didn't interrupt any of those and said this is not about this geological and geophysical EIS.

Now, I've waited. I'm at the end, and I think I deserve the same courtesy you allowed other speakers. Fair enough?

BY MR. GOEKE: You've had a fair amount of time. We really would like to bring it back to the topic at hand.

BY MR. SPRUILL: Okay. Thank you. As I was saying, the wakes created by these boats is far in excess of any wake that we now have on our North Carolina coast, and in -- in the transits down the Mississippi, I can remember my 375 foot 2,200 ton destroyer being shaken by the wake from these boats.

Fishermen and duck hunters out on the river that passes in the bayou live in fear if they're out in -- in poor visibility and -- and before dawn about being trapped by these giant boat wakes with nowhere to go. Where does this boat wake go as it rolls out from these large boats? It crashes into the marsh.

Again, what happens, the marsh breaks down, falls into the water, creates silt, goes in the oyster beds, smothers and kills the oysters. This EIS needs to speak to boat wake issues.

Now the North Carolina coast. Let's think about how this overlays on the North Carolina coast.

BY MR. GOEKE: As it pertains to seismic --

BY MR. SPRUILL: Yes, exactly. We have only two places on the North Carolina coast where there is heavy commercial activity dependent on the water. One is the state port in Morehead. The other is the state port here in Wilmington. We have nothing at all like the industrial infrastructure that's along the Louisiana coast.

We have a few commercial fishing houses with boat dockings and boat yards. We have boat marinas, pleasure docks and ferry docks. Otherwise, the North Carolina coast is characterized by wonderful natural and state parks, thousands of acres of marshes, second only

to Louisiana, by the way, wetlands in the nation -- thousands of acres of marshes and wetlands that -- that we hold sacred, shallow water sounds that are second to none in the US, public access to all of our shorefront below the high water lines, wonderful waterfront towns like Southport, Beaufort, Manteo and Ocracoke Village.

We have permanent residents, second homes, vacation homes, last, but not least, a hugely thriving retail business that's serving second homes, tourism, recreational and commercial fishermen. And I ask where does this offshore exploration and the eventual drilling and development fit into this model? I don't think it fits in. This is a totally different inshore coastal environment than is true in Louisiana.

I want to talk about the pipeline issue alone --

BY MR. BJERSTEDT: Sir, there are no pipelines associated with this proposed action. Please speak to the issues that we are here to discuss.

BY MR. SPRUILL: -- have only two more points.

BY MR. GOEKE: There are no pipelines proposed --

BY MR. SPRUILL: I'm smart enough to know what geological and geophysical exploration is.

BY MR. GOEKE: Yes, sir. That is what we are talking about, geological and geophysical --

BY MR. SPRUILL: Pipelines from -- shore will not

come through our inlets, because our inlets have to be dredged, and dredging and pipelines aren't compatible. Therefore, the pipelines have to cross our barrier islands, and crossing our barrier islands could create geological instability where we already have this exposure to breach -- our islands.

Let me just name a few of these islands and think about this. There's Oak Island. There's Bald Head. There's Masonboro. There's Wrightsville. There's Figure Eight. There's Topsail. There's Shackleford Banks, Ocracoke and Hatteras. Which of these islands make sense to pass a pipeline over 'em? I say none of them.

BY MR. BJERSTEDT: Excuse me, sir. We've given you a very -- lot of time. We do have another lady in the back who would like to speak. Ma'am, would you like to speak?

BY MS. PRINCE: Hi. My name is Ann Prince, and I'm from Myrtle Beach as well, and I do appreciate you being here. I've listened to all -- everything that everybody said today and I've made my notes.

One thing that comes to my mind, my simple mind, I might add, is that in Genesis, God gave man dominion over the animals, and while we are to protect them, I don't believe -- allow them to take precedence over human existence.

Since 1973, over 54 million babies have been aborted, and without -- scientific information, I dare say that the mammals, the lives of many -- birds or anything else that would be effected by this don't come any place close to that number. Thank you.

BY MR. BJERSTEDT: Is there anyone else? Upon -- information for commenting, you can pick up the fliers on the way out or the address. All of these addresses and hyperlinks, and with that, I would close the meeting.

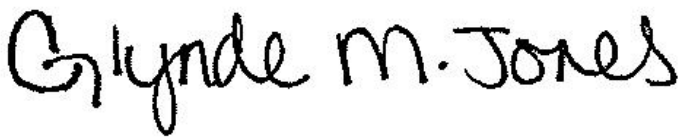
(Whereupon, the hearing was concluded at 3:22 p.m.)

CERTIFICATE

I, Glynde M. Jones, a Notary Public in and for the State of North Carolina, do hereby certify that the proceedings were reduced to typewriting under my direction and are a true record of the proceedings.

I further certify that I am neither attorney or counsel for, nor related to or employed by, any attorney or counsel employed by the parties hereto or financially interested in the action.

IN WITNESS WHEREOF, I have hereto set my hand and seal.



GLYNDE M. JONES, NOTARY PUBLIC

Notary Public Number: 20022120063

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