U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT

PUBLIC MEETING OF THE DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED GEOLOGICAL AND GEOPHYSICAL ACTIVITIES IN THE MID- and SOUTH ATLANTIC PLANNING AREA

Monday, April 16, 2012
1:00 p.m.

Presented by: Gary Goeke, Chief of the Regional Assessment Section of BOEM

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PROCEEDINGS

MR. GOEKE: We will go ahead and get on the record here.

Good afternoon. Thank you for coming out. We appreciate your turnout of our public hearing this afternoon.

My name is Gary Goeke. I am the chief of the regional assessment section for the Bureau of Ocean Energy Management in New Orleans. Sitting to my right is Tom Bjerstedt. Tom is the EIS coordinator and contact manager for this draft EIS that we're holding this discussion on.

Before we get too deeply involved in our discussion, what I wanted to do was sort of set a few ground rules to let everyone know how we're going to try and pull this off this afternoon.

I appreciate everybody turning out. This is a wonderful turnout. And I wanted to make sure that everybody is clear on our ground rules. Our agency has written a draft and environmental impact statement on the geological and geophysical collection techniques in the Atlantic -- in the Mid-

and South Atlantic Planning Areas.

All of you can see the maps that we're talking about. This EIS is only a discussion of the geological and geophysical data collection techniques. It's not a general meeting on oil and gas. It's not a general meeting that we can answer a lot of different questions.

As we go through the process to build an environmental impact statement, we create what we call an administrative record. The administrative record is what goes to court would be if you're sued. We try to keep our administrative record as clean as we can, and so we would hold our public hearings like this on that environmental document that we're creating.

We have a court reporter who is keeping a verbatim transcript of our discussion this afternoon. And we would ask you to keep your comments to the EIS, to the topic at hand, which is geological, geophysical data collection. And the comments we would like to get are comments on the environmental impact statement that we've created.

Given that, I will open the meeting. I'll turn it over to Tom. Tom is going to run the meeting. We have our contractor, Will Sloger, who Tom will introduce, from Continental Shelf Associates.

And with that, thank you very much for coming.

Tom.

MR. BJERSTEDT: Good afternoon. My name is Dr. Tom Bjerstedt with the Bureau of Ocean Energy Management. I'm the BOEM coordinator for the document that's under consideration today.

After I speak, I'll introduce William Sloger, who is the contractor that we have retained to write the environmental impact statement that we're reviewing today.

This is our public meeting on our programmatic EIS for these activities in the Mid- and South Atlantic. This is the first in a series of public meetings that we will hold in these areas on these dates to take the written comments, take your oral testimony about the document that's available for review at this point.

We have prepared a draft. We've distributed it to required agencies and people who have asked for it. It's been published on our website and posted there. Notice of availability for the EIS was published in the Federal Register on March 30th.

We're here today to collect your comments, any written or oral testimony that you wish to provide that will help us evolve the draft into a final file. As a draft, we put a lot of energy and effort into posing a structure for a decision that the Department of the Interior will need to make.

The result of your public comments is to help us re-analyze some of our assumptions, perhaps to also look at the framing of the issues, and just to give us some information that will help us finalize a document that is, in reality, a decision document. It's an important part of the federal government's process for making decisions.

It's a very important component for the NEPA process, which many people regard as

a pretty important piece of legislation. The purpose of the programmatic EIS is to assess the potential environmental impacts of various types of geological and geophysical techniques that would be conducted in the Mid- and South Atlantic Outer Continental Shelf.

We evaluated the projection of activity that could take place in these OCS areas. We evaluate mitigation measures that are available to reduce or eliminate impacts on affected resources in those areas. And this information provides a data and input for our bureau and for other agencies, federal agencies having responsibilities in environmental law for making the decisions that they need to make before those activities are authorized.

A BOEM document has a proposed action. The proposed action in our case is to authorize geological and geophysical activities required to support the three program areas that the Bureau of Ocean Energy Management manages. These are three primary areas: Oil and gas; renewable

energy; much smaller, but no less important program from marine mineral, acquisition and use, primarily sand and/or gravel, if there is gravel there.

These are the Mid-Atlantic planning areas here. You can see on the maps that are around the room Mid-Atlantic and the South Atlantic. This is the edge of the 200-nautical-mile exclusive economic zone for the United States. This purple line here, that's a little harder to see, is the edge of a possible extended Continental Shelf. That's not territorial waters that we have at states, but there is a procedure in international law for the United States to pursue exclusive economic rights in that area. The United States does not have that provision at this point. But if it should do that, we wanted to have this environmental review include that area until the United States decides to seek that sort of authority.

The types of activities we are talking about are geological in nature and geophysical in nature. They're exploratory.

Geological activities involve coring, which is near surficial sampling of the soft sediments. It can involve shallow test drilling, which would be a little bit deeper, primarily less than 500 feet. Or if you're drilling even deeper still, beyond 500, you tend to preclude that or regard that as a deep stratographic test. That's the kind of activity that would be -- is a geological component. It's under consideration in the document.

The geophysical activities we're talking about are two- and three-dimensional site of surveying with airguns. Also, controlled source electromagnetic surveys, these tend to be used by industry for examining the content for formation fluids.

High-resolution geophysical surveys, these are engineering in nature primarily. The airguns, if they're used in these type of surveys, tend to be much, much smaller. They're used for analyzing the geoengineering properties for shallow, soft sediment for in placing structures or in placing anchors on the sea bottom.

Multibeam echosounders is a device for determining asymmetry. A sidescan sonar is a device for determining construction on the bottom, perhaps shipwrecks perhaps that have hard bottom communities, live bottom communities.

Boomers, contrary to the rather intimidating name, is an electromechanical device. It's not an airgun. It's an electrical circuit -- or electrical charge that's introduced to the water and a metallic diaphragm responds to it and that is sort of a signal that is put into the water column. It's not an airgun type of explosion. That type of technique is simply called a boomer, and also in a family that you can have a tool called a spark.

We're also considering gravity and magnetic surveys, those conducted on the ocean, usually at the same time the site and survey is conducted, but they're also airborne surveys by aircraft.

Now, impact-producing factors is in the NEPA jargon, a stressor on the environment. You are proposing to have a suite of

activities take place on public land. You have to analyze what sorts of stressors or impulses you are introducing into the environment. You have to understand what things are influencing resources. For our circumstance, we are talking about things that are routine, things that are expected, normal course of action, and also we have to consider accidental events.

Things that are expected as a result of conducting the surveys include this suite of activities here of the impacting factor.

Active sound sources would be from an airgun, for example. Electromechanical sound sources are those other tools that don't introduce that kind of impulsive burst of sound into the water. They are much more benign in comparison to airguns.

Aircraft traffic and noise for the conduct of aerial magnetic surveys, for example, or aircrafts, helicopters and lighthouse service, vessels that are working offshore, sometimes they have to carry tools out, and sometimes they have to carry materials out. Those are an impacting

factor, as well.

Drilling and coring that takes place as operational wastes, that could mean cutting from shallow drill coring, the mud cuttings that are brought out. Also, drilling muds that are used to facilitate the drilling shallow holds.

Sea floor disturbances would be those -- any disturbance on the bottom or bottom sampling, actually grab the samples from the bottom itself.

Drilling and coring, which includes those discharges. You have to put anchors on the bottom before you begin your well.

Placement of anchors, cables, sensors, anything that disturbs the bottom is something that needs to be considered.

The onshore support services, these are onshore components of offshore work. Ocean boats have to berth somewhere. They have suppliers that bring -- or from which they buy services. They have crew members that live places. All of these are indirect and cascading events that are part of the proposed action, just a little bit more

indirect.

Vessels cause traffic on the water of noise. They have exclusion zones for safety reasons for setting back from protective species. They also generate waste just by the simple fact of their operation. And human activity on the ocean involves trash and debris, and that's also a potential impacting factor.

Accidental events. In our circumstances here, since we're not going through oil, we're not transporting oil, we're not transporting much of anything. We're just worried about fuel spills that might result from an accident or a collision.

So you have an array of stressors on the environment. What are the environmental resources that are potentially impacted? That's an affected environment. That's one of the components for EIS evaluation.

In our case, we've taken a look at the areas of interest. We're considering the benthic communities. We consider fisheries, commercial and recreation, and also essential

fish habitat which bears on the health and viability for commercial and recreational fisheries.

We're considering marine mammals that inhabit that area, sea turtles, coastal and marine birds, protected species of any of those major groups that I just mentioned.

Also, the socioeconomic issues; archaeological resources, the eastern seaboard has a long history and lots of shipwrecks out there.

Marine protected areas. There are at least two. There is the National Marine Sanctuary in the southern, South Atlantic planning area, Gray's Reef, that's one. And in the Mid-Atlantic planning area you have the National Marine Sanctuary. Those are marine protected areas.

Recreational resources tend to be things done a bit more closer inshore, but they could be happening offshore as well. They take place and they place in the same area.

Human resources and land use. I alluded to the support functions for people

working on the ocean have support that is taking place on land.

Other marine uses, there are large blocks in the Atlantic and South Atlantic planning areas that are used by Department of Defense for various activities that take place on the surface. Activities that take place on the water, and even activities that take place in the air that drop things in the water. There are vast areas of those planning -- OCS planning areas that have military -- potential military uses.

There are also large areas that have a component of NASA programs, National Atmospheric -- NASA -- Aeronautic and Space Administration. There is the Cape Canaveral complex we have at the southern end of the south Atlantic planning area. There's also the Wallops Island Flight Facility, which is on the very northern part of the Virginia coast in the northern part of the Mid-Atlantic planning area. So these areas have national missions that involve private and public funding for space exploration of various types.

The heart and soul of an environmental impact statement is the range of alternatives that are chosen for analyses. For an EIS, you have a proposed action, and the BOEM regulations and the law requires you to -- if you're proposing an action on the federal lands, to try to look at alternatives for how you can conduct that work, gather the information that's in concordance with the need for the information and the purpose that you're doing it.

We have three alternatives that we've structured. They are basically framed around existing regulations and time-area restrictions that currently exist on the OCS and also in state waters. These are primarily set up for northern right whales. There is a critical habitat area. There's also seasonal management areas that I'll show you on a map later that identifies where these areas are. So they have a -- there's an existing time area component and these areas are restricted for vessel speed. When whales are there during certain times

of the year, the NOAH regulations have set up these time-area designations for controlling the speed of the vessels. They want the vessels to go slower so that there's a lessened hazard for striking whales that might be there. We're simply adopting these time-area designations.

Also, the Bureau of Ocean Energy Management, we have existing mitigation and practices, protective measures that we employ for this kind of activity in the Gulf of Mexico. We have a long history of use and activity in the Gulf and we have a series of, I will call them design elements, for how you conduct surveys. In our program, we have what's called notices to lessees, NTLs. And these are documents that are not regulations, but they are explanations for regulations that are not multi-specific. None of our regulations are ultra-specific for all circumstances, and NTLs are a way for our agency to communicate to people working on the ocean that have leases that are exploring how to interpret our regulations.

And in there, there are various practices that have been developed, such as protective species observers, vessel strike avoidance, what you do when you encounter a protected species on the water, marine trash and debris awareness.

All of these are existing suites of guidance that we can import to any sort of new activity that is taking place on the Atlantic. I call them design elements because they ultimately are guidance for how you begin, how you conduct, and how you may even shut down survey once it's actually being deployed.

That's sort of the basis for our proposed action: Existing, regulation, and time-area closures and restricted activities and the proven and used guidances for existing information that we have in the Gulf of Mexico.

Alternative B, the philosophy is to take what Alternative A has and add to it an enhanced component of protection, and also an additional element for time-area activity restrictions that make sense. As part of

the Alternative B, we have expanded time-area closures for the northern right whales, seasonal management areas. And I'll get to a map, again.

A closure area that we're including as part of the alternative for nesting sea turtles offshore of Brevard County in Central Florida. It's a very prolific area for those species, waterhead turtles. There are tens of thousands of nests that have been reported and observed onshore.

For deep-penetrating seismic surveys and separation and simultaneous surveys that are taking place, and also as part of Alternative B, required passive acoustic monitoring, or sometimes you'll hear that referred to as PAM. PAM is nothing more than the deployment of sensitive hydrophone in the water and monitoring by technicians to see if there are characteristic sounds made by marine mammals that infer that they're present underwater.

A marine mammal that surfaces, they have to come up to breathe. You can see them. But if they're under water, you can't see

them. PAM is a technique that might be helpful to help identify when there are animals around that you can't see. That's what it is all about.

Alternative C is the no-action alternative that's required by BOEM evaluation. In our case, since we're considering three program areas -- oil and gas, renewable energy, and marine minerals -- our no-action alternative has been framed that no action would take place for oil and gas activity. There are no current leases on the Atlantic at this point. There's no authorized lease sales. There's been no authorized work on the Atlantic for quite some time, 25 years or more. So the no-action alternative for that program is nothing happening.

Now for the other programs, renewable energy and marine minerals, they are already authorized on the OCS. They're taking place on a case-by-case basis. When someone comes in with a proposal or a project, the renewable energy program, or for marine minerals, we take it up and we process it

through the system. So that is a status quo aspect for those programs. We're not seeking to shut down something that's going on now. We're seeking to analyze whether or not to begin something that hasn't begun.

Alternative A is to -- going back to A, allow this activity out to the 350-mile nautical limit. For the entire area of interest, the survey protocols that I mentioned to you earlier, the NTLs that we used that designed how you design a survey; how you begin a survey; how you conduct it while it's going on and how in some cases you shut it down if something happens. If you see animals in the area, you ramp down. That's part of the type of protocol. They apply -- seismic survey protocols will apply with airgun-type surveys and also through the electromechanical types of high-resolution surveys.

The time-area closures for the northern rights, November 1st through April 30th for the Mid-Atlantic seasonal management area. Again, map to follow. And a little bit later in the year in the southeast seasonal

management area, because these are migrating creatures. They summertime offshore in New England states and migrate down the coastline in the summer months and early fall and they winter offshore Jacksonville in the critical habitat area.

Also, in these seasonal management areas for the periods that are identified here, which also correspond to the vessel speed restrictions that National Oceanographic and Atmospheric Administration recognizes, that no airguns proposed for deployment in those periods of time in those areas.

We would include the guidance for vessel strike avoidance, the NTLs avoidance and reporting for sensitive benthic communities. If you're proposing to disturb the sea bottom in some manner or form in the course of doing G&G activity, you need to do certain surveys, and the reports that result from those surveys are prescribed in NTLs, so our people get to review those surveys before operators go offshore and do anything.

Military and NASA coordination for the

range complexes that are out there, so you have a point of contact with the appropriate military point of contact there, so that those folks know if we're seeking to permit some work that is going on out there, we can coordinate with them. They can tell us, hey, this is not a good idea at this particular time for this particular reason, that's why the coordination is included.

And the passive acoustic modeling that I've mentioned, the PAM, is just recommended under Alternative A. It's not required. It's not part of that particular alternative.

Now, these are seasonal management areas that I had mentioned to you. This hatcheted area offshore Jacksonville extends in a belt here all the way down the Florida coastline to the bottom of the southern South Atlantic area is the critical habitat for the northern right whale. This orangish box here that is containing the critical habitat is what they call their seasonal management area. That's the area in which they have vessel speed restrictions for

those periods of a year because there are whales in there and you want to keep the ships going slow so that they have a fighting chance of seeing whales if they are there.

The south of -- the Mid-Atlantic seasonal management area are these yellow regions. There is a continuous belt from Brunswick all the way up the coast to Wilmington. It extends offshore about 20 nautical miles, and then you will see these small cuspis regions that are located off the miles of bays and large estuaries where there are a lot of vessels coming in and out.

When the whales are migrating down this corridor, they want people to keep their eyes -- keep their eyes clear for whales that might be in the area. We're proposing that that be part of the time-area closure for the deployment of airguns during those periods. That's part of what we're -- our concept with time-area closures in Alternative A.

Now, Alternative B, to amplify what

that's all about, is also to allow these activities off of the 350 nautical miles to include all the mitigations that I just mentioned to you with Alternative A. The expanded time-area closures for northern right whale, an additional closure zone out to 20 nautical miles from the coastline to close the gaps in the Mid-Atlantic seasonal management areas, map to follow. And an additional closure zone out to 20 nautical miles, it extends south of the southeastern seasonal management area that I showed you on the map on the previous slide. And the time-area closure for the sea turtles during nesting season off Brevard County.

I mentioned to you seismic separation for simultaneous surveys. 40 kilometers is what we're proposing, because industry generally keeps a distance of 20 kilometers from any seismic survey ongoing just to avoid interference between airguns array and one seismic survey and an airgun array in another one. So we're proposing to step back that area so that there's a bit of a buffer zone between, just so that it's not

sonicfied with airgun activity.

And the survey protocol includes required passive acoustic monitoring. Required use of the PAM. PAM is kind of considered by many people to be a bit experimental, but it is used. It is used by other countries to various degrees of success, but we're proposing that the industry adopt it and use it.

For this Alternative B time-area closures, these are the areas that I showed you for A. Here is the southeast seasonal management area, critical habitat and hatcher. Here's the Mid-Atlantic seasonal management area. And what we're proposing is to include in a beltway between these cuspis areas that connect up with the existing time-area closure that NOAH recognizes.

Also, from the southern end of the southern southeastern managemental area, if you go down all the way in a similar belt to this southern edge of the South Atlantic planning area, so that in effect what the alternative is proposing is to have a

continuous beltway along the seaboard out 20 nautical miles along -- all the way from the top of the northern part of the Mid-Atlantic planning area all the way to the southern extent of the South Atlantic planning area.

And this is the area where the migrating whales tend to be focused. They can be found anywhere, but they tend to go along the shoreline. They tend to be seen most often along the shoreline. And what we're proposing as part of this alternative is just to exclude airgun activity in that belt for those periods of time. That is what Alternative B is all about.

The area off of Brevard County, I mentioned that there are prolific numbers of loggerhead sea turtle nesting spots here. The seasonal area that's being proposed is out to 11 miles, nautical miles, for this part of the year, because the turtles come in, they lay their eggs, they hatch, they migrate out. It is probably a good idea to keep active airgun sources away from that area for that period of time.

Alternative C, I mentioned to you no

action for oil and gas, but to continue the status quo for the other programs because there is no restriction on them at this point. It is being considered as a total program in this environmental impact statement because we don't have any programmatic consideration of everything we do in this category in this area.

What you will see in the EIS, if you'll take it up and take a look at it, is a rendering for -- a qualitative rendering what we call significance criteria for what these impacting factors are doing to these particular resources.

If you look at the document itself, if you take it up, look at Table 2-2. It's a really good summary where you can go to see all of the resources, all of the impacting factors that affect those resources, each of the three alternatives and how they've been assessed according to qualitative significance criteria.

Each of these qualitative terms are defined in the document. But this is a really good way if you want to see a

complete roll-up, is to examine Table 2-2.

Part of the BOEM evaluation includes consultations that are required by environmental law. Now that we have a draft document on the street open for comment, we've already begun informal consultations for Marine Mammal Protection Act. Also Section 7 of the Endangered Species Act. Once we have formal documentation prepared, we'll begin formal consultations other than the laws.

What are the next steps. The public comment period extends over April and May. Once we have comments from people like yourself, from other federal agencies and gathered in from the other meetings that we will be holding, we'll revise to a final during the summer and early part of the third quarter.

Once we have a revised document, it will go through a review cycle within the Department of Interior and we'll begin to fashion what kind of recommendation we would like to make to the Secretary of Interior for a decision. All of the environmental

consultations are taking place during the period of time between right now and when we're finished.

The record of decision we forecast to be sometime early in December before the end of the calendar year.

I mentioned to you that the comment period closes May 30th. Comments we collect here orally or if you happen to hand it to us in writing as part of the record that we consider.

You can e-mail comments to our dedicated e-mail box GGEIS@boem.gov. This is a link for the -- where the document is posted on our regional web page for the project.

If you choose to do snail mail, you can mail to this address here. These are all of the public meeting announcements. All of this information, our newspaper announcements and the Federal Register, and it's generally available. So if you don't have it right now, you don't have to furiously type to copy it.

In closing, what I would like to mention

is that we spent the better part of a year -- in fact, longer than a year -- putting together this draft proposal. It involves state-of-the practice modeling for noise in the sea for these types of instruments. It's difficult material to digest. What I'm asking of those folks who wish to offer comments is that they take a good read of the document. It is not easy reading. Try to understand the mitigations, try to understand the motivation for the mitigations. Digest the material as best as you can and pass it back to us to help us make a decision, because that is what we really seek.

At this point, I'll introduce Mr. Will Sloger, who will talk about in greater detail how we assess the impacts on marine mammals for this environmental review. I talked about the whole superstructure. He'll talk a little bit more about the modeling that was done and some of the assumptions that are used in order to assess impacts on marine mammals. Mr. Sloger is from CSA International, Inc., located right here in

the great state of Florida, in Stuart.

Bill?

First of all, I have to boot up his presentation.

MR. GOEKE: While Tom is doing that, let me suggest if you are interested in what we are talking about this afternoon, when you got here we asked you to sign in. That sign-in sheet allows you to get added to our mail list, allows us to send you publication notices, allows us to keep in touch with you. If you are interested in that happening, then make sure you sign the sign-in sheet either before you leave or at the break, because we will be taking about a 15-minute break after the speaker. But that's important for you to track what we are doing. We are not trying to track you or track who you are, but if you want to get these news fliers, you have to sign the sheet.

Thank you.

MR. SLOGER: Thank you, Tom. I would like to now describe the assessment of impacts to marine mammals. There were 15

research areas that were listed on one of your earlier slides that Tom had just showed you.

A multistep that was followed in assessing impacts for all resource areas including marine mammals.

The first step in the process was to identify resources within the area of interest by species, distribution, and destiny. The criteria that define the significance of the impact on the resource is then established.

The next step in the process is to identify the factors that could produce the impacts, such as noise. Once these steps are completed, data is collected about the proposed action, resources potentially impacted, and the measures that could mitigate those impacts.

The final step in the process is to analyze impacts by developing estimates of incidental take, if any, and determining the level of impact.

There are 38 species of marine mammals known to occur within the area of interest.

These include seven baleen whales, 27 toothed whales, dolphins and porpoises, three pinnipeds and one sirenian. The sirenian, the West Indian manatee and the pinniped species are not likely to be affected because of their limited occurrence in the area.

To establish impact significance criteria, we must first look at current federal regulations. The Endangered Species Act applies to certain marine mammals that have been designated as threatened or endangered.

BOEM has prepared a biological assessment to comply with Section 7 consultation requirements with the National Marine Fishery Service regarding listed species. In the future, operators will have to apply for incidental take authorizations for their specific surveys.

There is seven species of marine mammals known to occur within the area of interest that are currently listed as endangered under the Endangered Species Act. These include five baleen whales, the blue,

sei, fin, humpback and north atlantic right whale, one toothed whale, the sperm whale, and West Indian manatee.

One species, the north atlantic right whale, was designated critical habitat within the area of interest. Tom has already gone over this slide pretty well. I just wanted to point this out, because it is very important as far as the mitigation program for this proposed action.

The analysis of impacts was designed to address harassment to marine mammals, both Level A and B, as defined under the Marine Mammal Protection Act from project-related activities.

To assess impact levels, categories of significance must be defined. Broad significance criteria were developed for the biological and socioeconomic resources based on the results of the resource streaming and in consideration of recent environmental impact analyses and their respective impact descriptions.

The criteria reflect considerations for both contacts and intensity of four basic

parameters. Detectability, that is, is an impact measurable or detectable. Duration, is it short term or long term. Spatial extent, is it localized or extensive in severity.

For the purposes of this analysis, negative impacts have been classified into one of four levels: Negligible, minor, moderate, and major, as shown here with their general definitions.

All impact-producing factors evaluated in the PEIS were identified earlier in the presentation. These five were identified for the proposed action as having potential to affect marine mammals. All but the first factor have been found to have negligible to minor impact on marine mammals.

The remainder of this discussion will focus on the analysis of potential impacts of noise from active acoustic sound sources.

There are three basic steps to the assessment of impacts: Collection of support of information, establishment of mitigation measures, and the determination

of potential impacts.

Support of information includes materials about the proposed action, information about potentially-impacted resources, and the estimation of the impact to those resources.

The acoustic sources covered in the analysis are divided into two categories: airguns and electromechanical sources. Six sound sources were chosen as representative of various type of surveys, two sizes of airgun arrays, and four electromechanical sources. These six sources are representative of all surveys within the two general categories.

The unit of measure to define the level of survey activity during the time period analyzed during the year 2012 to 2020 is line kilometers. As you can see from the total number of line kilometers for the nine-year period, the majority proposed survey activity would be 2D-sized exploration surveys. Most of the surveys listed here are deep penetration size that involve the use of airgun sound.

This figure provides visual representation of the information on the previous slide. It is a view of where two of the proposed surveys would be located and the relative levels of survey activity. The areas that are darkest represent the areas of greatest survey activity.

Information was also gathered for all potentially-impacted marine mammals species regarding hearing capability and sensitivity. In addition, acoustic impact thresholds for Level A and Level B harassment were reviewed using established National Marine Fishery service approach and the approach proposed by Southhall, et al.

In order to better understand the potential acoustic-related impacts from the proposed activities, a modeling study was conducted to estimate the propagation of underwater sounds within the area of interest produced by representative sound sources.

The sound sources were modeled at 22 modeling sites located throughout the area of interest to depths different in physical

conditions such as water depth, sea floor composition, and seasonal temperature differences which affect relative underwater sound speed profiles.

These combinations resulted in 35 propagation scenarios which, when combined with the different acoustic source configurations, led to 105 different acoustic propagation estimates.

This is one of the intermediate products in modeling effort. These figures show relative differences in predicted sound pressure levels for the two sizes of airguns, the locations on the Continental Slope and the Continental Shelf.

Now I would like to discuss the acoustic integration Model A, which was used to predict the average number of marine mammals that could be exposed to sound levels above a given threshold in order to estimate take.

To accomplish this, a virtual environment was created within which sound sources and animals were placed. Specific circumstances modeled included sound source

properties and movements derived from the acoustic propagation monitoring results.

Species distribution and dive and swim pattern and environmental conditions affecting transmission. Expected effects from proposed mitigation measures were also fed into the software program.

BOEM conducted modeling for incidental takes. Not for incidental take authorization, but for impact analysis and to help in developing appropriate mitigation.

The analysis of impact for marine mammal species was very conservative. While it takes into account certain mitigation measures, take estimates did not include the effects of operational mitigation measures, such as pre-activity surveys of safety zones by a protected species observers, ramp-up procedures or shutdown measures for animals entering the safety zone during the surveys.

It also did not factor in the hearing range for species. That is, some species may not be able to hear within the range of frequencies of sound produced by the

airguns.

This slide summarizes the mitigation measures for reducing potential impacts to marine mammals as implemented in the three project alternatives. All authorizations for seismic airgun and monitoring airgun high-resolution surveys would include the survey protocol as Tom described earlier.

That specifies mitigation measures for protective species, including requirements for visual monitoring of the exclusion zone by its protected species observers and start-up and shutdown procedures.

Alternative A also includes the option we use of PAM, as Tom talked about, to help develop -- to help vocalizing marine mammals, along with the sight and survey mitigation measures.

Use of PAM, of course, is mandatory for Alternative B. Alternative B would also establish the 40 kilometers separation distance between simultaneous surveys to limit its sonification in large areas at the same time.

Geographic separation of current

surveys is not required for Alternative A. All authorizations for shipboard surveys that include guidance for vessel strike avoidance and renewable events.

As you saw earlier, this is a slide showing areas that will be closed as part of Alternative A and, of course, those areas are expanded under Alternative B, both north and south.

I would like to conclude with this table. It lists the impact levels for all of the impact-producing factors applicable to marine mammals under all three alternatives.

Alternative A, of course, is the proposed action, followed through to Alternative C, is the no-action alternative.

As you can see, with the exception of active acoustic sound sources, the impact level is negligible to minor for all of the other impact-producing factors.

Thank you.

MR. GOEKE: Thank you, Will.

At this point, thank you all. I know that this -- we had a lot of information

that needs to be presented and I appreciate your patience with this.

At this point we're going to move to the comment section of our meeting. Do we have any elected officials in the audience? We do? We offer you the chance to speak first, if you care to take it.

MS. HUTTON: I will wait my turn. I'm third.

MR. GOEKE: Okay. All right. Then we will move to the list of speakers as they're signed in. Kevin Doyle is first.

MR. DOYLE: (Tapping mic.)

MR. GOEKE: Sorry. There is a little button on the top of that, that needs to be pressed.

MR. DOYLE: Thank you for allowing me the opportunity to be here today, and thanks for choosing Jacksonville, Florida to be first public hearing.

My name is Kevin Doyle. I am the Florida Executive Director for the Consumer Energy Alliance, a nonpartisan, nonprofit group dedicated to expanding dialogue between the energy and consuming sectors and

ensuring balanced national energy policy. I'm pleased to comment today on behalf of Consumer Energy Alliance.

Considering that more than 30 years have passed since the last estimates 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 technologies, it is likely that current estimates of oil and natural gas resources in the Atlantic OCS will change because the latest technology will allow for the development of resources that were previously thought unrecoverable or because new locations of these resources might be found. 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 Atlantic waters, and we must begin that process as soon as possible. We must recognize the tremendous economic opportunity that safe and responsible offshore energy exploration presents to the citizens of Florida and the nation at large.

According to a 2011 Woods Mackenzie study, oil and gas development in the Atlantic OCS could generate up to 140,000 jobs and $14 billion in government revenue annually.

The U.S. oil and gas industry supports over nine million American jobs -- both directly and indirectly -- and generates nearly $1 trillion in economic activity every year. If access to areas currently off-limits to production were granted, an additional $1.7 trillion in government revenues could be generated.

It is time to implement a balanced, commonsense national energy strategy that creates jobs, improves our national energy security and responsibly allows access to

our abundant offshore resources.

In conclusion, Consumer Energy Alliance feels that with the appropriate mitigation measures, seismic surveys can be undertaken with little or no impact to marine life. As such, we hope that the process surrounding the development of the PEIS moves forward expeditiously so that this essential data can be available as soon as possible to support future lease sales and resource assessments.

CEA thanks the Bureau of Ocean Management for their work on the PEIS. And thank you again for allowing me to speak today.

Thank you.

MR. GOEKE: Thank you.

(Clapping.)

MR. BJERSTEDT: William Boe.

MR. BOE: I would like to thank you for bringing these hearings to the people of the state of Florida. It's certainly a timely topic.

My name is Bill Boe. I'm from Gainesville and speaking as a south Florida

farmer. I moved to Florida as a school teacher in Marion County and I served in the Vietnam War and speak strictly on behalf of myself representing no formal group.

I would like to state with absolutely no reservations that I support the physical processes that you suggested today. Likely accurate, more current data and we'll need to expend the domestic actuator energy production in a responsible and safe manner.

As a Florida public school teacher, I know in our classrooms in this state we have a talent, and I know that the engineering communities provide the technology that we can collect the needed data in a safe manner as you've proposed today.

I believe Alternative A's proposed action is practical, responsible, and certainly needed. I want to see our resources, possibly inventory that lead to new leases that would expand production.

I think Alternative C, which was no-action maintained status quo and no new data collection, is certainly impractical and irresponsible.

I would like to recall an incident from my personal background that I think shows the necessity of having the most available data for a lot of your purposes.

I was a junior at the University of Georgia when I enlisted in the Army Infantry, volunteered for Vietnam, served the Bally (phonetic) Company, First Battalion, 14th Infantry. My final military adventure was on June the 7th, 1968 as platoon sergeant and my patroon was ambushed through the Cambodian border. Out of 27 of us, 17 were killed or wounded. We weren't where we thought we were and we weren't where we needed to be. The reason for that is we had inaccurate maps. We were using maps left over by the French.

I think we're in a very important period of time in our country's development and history where we need to use the most accurate information available to plot our future course.

Obviously, our current scenario as far as energy is certainly unacceptable to me as a consumer, as an American citizen of

Jacksonville, as a Navy town. We send people throughout the world to protect international shipping lanes in the world. We can bring those resources other people create, to bring us, at fairly high rates. I filled up in Gainesville at $3.98 today.

I think it is irresponsible sending our servicemen all over the world to protect other peoples' energy, but to send it to us to sell at higher rates.

I would like to see us as a nation to be responsible, identify our own resources, and use it for own benefit in a responsible and practical manner.

Thank you, very much.

(Clapping.)

MR. BJERSTEDT: Marge Hutton.

MS. HUTTON: Good afternoon. I'm Marge Hutton. I'm a member of the town of Orange Park Council. I'm the immediate past president of the Clay County Chamber of Commerce and I am running for county commissioner, District 3, in Clay County.

Business, especially small businesses, are an economic engine of Florida. And as

the cost of doing business continues to rise, more and more businesses are forced to close permanently, and in this economic climate we must do all that we can to maintain a climate that businesses can thrive.

One way to do that is to help lower the cost that discourage businesses from starting here and prevent existing businesses from growing and expanding.

Energy costs from electric bills to fuel for vehicles to the cost of transporting goods and products have a huge impact on our businesses. And we have an opportunity to help get those costs under control by increasing our domestic energy supplies.

I ask you to move forward with the seismic surveys in the Atlantic outer Continental Shelf for the sake of Clay County, for the sake of Florida, and our nation's businesses.

These surveys are an important first step toward developing domestic oil and natural gas resources that can ultimately

help lower energy costs that greatly affect businesses and the employers. Help Florida businesses stay in business by increasing domestic supplies of fuel and getting our energy costs under control.

I thank you for your time.

(Clapping.)

MR. BJERSTEDT: Eric Hamilton.

MR. HAMILTON: Good afternoon. My name is Eric Hamilton. I'm the associate director of the Florida Petroleum Council, Division of the American Petroleum Institute.

Thank you for the opportunity to speak today about this PEIS, which will support the issuance of permits to conduct geological and geophysical study activities on the Atlantic outer Continental Shelf.

The oil and natural gas industry has a long history of working with the Department of Interior to develop this country's natural resources to the benefit of the U.S. economy and all Americans. Our industry stands ready to invest in exploration off the Atlantic OCS, and this PEIS is a needed

first step to begin the process of generating the data that will allow for more accurate estimates of the potential for oil and natural gas development in this area. Generating new data is very important for the Atlantic OCS, given that current estimates are based on decades-old data and have not benefited from the technological advances in seismic surveying and computer modeling in use by the industry today. Although it is difficult to accurately estimate the amount of resources without the benefit of drilling, current estimates are likely to be conservative, given that history has shown that active exploration and development often leads to increased resource estimates.

However, the belief that moving forward with this decision can quickly lead to filling the information gaps on potential Atlantic OCS oil and gas resources is misguided. This effort falls short in initiating forward-thinking, comprehensive energy policy. In fact, the data-collection activities envisioned by the administration

will not likely happen unless companies are convinced the prospects for leasing in the Atlantic OSC in the near future are real. As we all know, current OCS policy does not allow for a lease sale in the Atlantic until 2017 at the earliest.

It's important to remember that the government does not generate this data; seismic companies do. And they generally do this on a speculative basis, hoping to sell the data to operators who are looking to purchase leases in an area. With no lease sale scheduled in the Atlantic, and thus no potential customers, seismic companies have little incentive to gather new data.

Excluding the North Atlantic Planning Area in this PEIS is yet another short-sighted policy decision. There is a great deal of interest in surveying and eventually developing this area. Oil and natural gas companies need geological and geophysical data that they can use to compare with geological features in other offshore areas where there is current oil and natural gas production. Without this

new data, a significant data gap will remain.

We can create more jobs and generate more revenue if allowed to responsibly develop and produce here in the United States, more of the oil and natural gas we need. But more development, especially on public lands and federally controlled waters, requires that industry and government share a vision of the potential benefits and act as partners to fully realize them. The oil and natural gas industry already supports 9.2 million U.S. jobs and 7.7 percent of the U.S. economy delivers more than $86 million a day in revenues to our government, and, since 2000, has invested more than $2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

To supplement the Wood Mackenzie study that was already mentioned by Kevin Doyle, the oil and gas development would also bring much needed jobs and a variety of industries in Florida.

According to that Wood Mackenzie study,

opening up Atlantic offshore areas and the Eastern Gulf of Mexico that are currently unavailable could bring 161,000 jobs to Florida.

These aren't limited to jobs directly associated with 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 construct the infrastructure required to drill offshore.

In addition, offshore development can generate much-needed revenue to fund critical services, including roads, environmental conservation, and education. According to a Wood Mackenzie study, $24 billion dollars in revenue could be generated for Florida from 2012 to 2030 if offshore development, including the Eastern Gulf of Mexico, were allowed to take place in areas that are currently off-limits from development.

We appreciate the opportunity to comment on the PEIS for geological and geophysical studies in the Atlantic OCS and

the oil and natural gas industry stands ready to invest in safe exploration and development of the OCS should administration policies change to take full advantage of the opportunities that are present.

I will leave these comments with you.

(Clapping.)

MR. BJERSTEDT: Bill Hamilton.

MR. HAMILTON: My name is Bill Hamilton and I live on Anastasia Island south of St. Augustine. I'm a small business owner and I am heavily invested both commercially and residentially in the marine area in this part of Florida.

I attended a meeting hosted by the local business council and the White House Business Council. Ray Mabus, who is secretary of the Navy, was the guest speaker. And the question was posed to him how he assessed the threat both nationally and internationally from climate change and how he answered those who claim that climate change is a hoax.

And he said that he's been all over the world. He had -- including Greenland and

Iceland. He has been under the polar ice caps in a submarine and the affects of climate change and evidence for climate change is everywhere. He said that for those who claim climate change is a hoax, you're entitled to your own opinion, but you are not entitled to your own facts.

The threat for climate change should be the topic of these hearings, not how we can facilitate putting more carbon in the atmosphere. For every gallon of oil that is drilled and turned into carbon in atmosphere instability increases, uncertainty increases, the weather patterns change and the risk globally increase.

He pointed out that roughly half of the world's population lives in areas that are susceptible to flooding due to climate change. Seven billion people, the population of the world now. That is more than three million people.

The consequences for the Navy for which he is responsible for is, he said, that 20 years the global sea ice will be gone, which will open up new areas for the Navy to

patrol and new shipping lanes.

The area that we're talking about here is inappropriate for any exploration, gas or oil. It's totally inappropriate to have any oil or gas drilled here.

And my recommendation is that these hearings, instead of facilitating a future oil drilling, they should be held on how we protect the marine species that are there, how we protect the resources that God put here for all of us to be responsible for.

So my recommendation is not only should there not be exploration, there should never be drilling, and that these hearings, this kind of hearing should be suspended until we get an accurate -- we get accurate information and responsible policy regarding global climate change.

Thank you very much.

(Clapping.)

MR. GOEKE: Please, no more clapping, and certainly no booing, please.

MR. BJERSTEDT: Rachel Bardin.

MS. BARDIN: Thank you, everyone, for being here. I take this opportunity to

educate yourselves and educate us.

I'm originally from the Gulf Coast. I grew up fishing, eating oysters and fish out of it, and I learned to surf on its waves. And after the oil spill there, I know the ocean will always be more important to me than $2.00 or $3.00 gasoline. I would rather have to ride a bike or walk to the ocean and know that I can still get in, rather than drive, and I can still eat the food from it but to drive there and see orange boom or trenches dug in the sand or oil and fireballs in the sand, which is what I saw. This is not worst-case scenario. This is reality. This is what happened.

Petroleum is one of the filthiest forms of energy, and I don't understand why we are so attached to it. The emissions are acidifying our ocean. They're putting mercury into our food. They're putting it into our fish.

People like to call my generation the entitlement generation. But it seems our whole country thinks that we're entitled to cheap gasoline. That we're entitled to

Ford-150s and iPads. But the planet does not owe those things to us.

The only thing that we're entitled to that I hope that future generations are able to see and experience is a clean ocean that's full of life and abundance, not oil rigs and container ships.

And I support Option C, Alternative C, because this conversation is the first step to doing to the Atlantic what we've done to the Gulf.

I hope to -- I think that the other economic aspect is that I work in surfing. I give surf lessons. I work with someone that builds surfboards over on the Gulf. His business was cut by 75 percent after the spill. The fishermen there were -- they had signs up that were pleading with people, "Our shrimp is oil-free."

So if you think it doesn't have a potential negative impact on your assumption, you're absolutely mistaken. And I just ask for us to learn from our mistakes and get more educated in the future.

Thank you very much.

MR. GOEKE: Thank you. I appreciate your thoughts.

MR. BJERSTEDT: Yvonne Norman.

MS. NORMAN: Thank you for being here. My name is Yvonne Norman and I also represent small business. I have a residential cleaning business in Clay County and I'm a Florida resident since the late '60s, and my husband is in construction. So between my husband's position in work and my position in work, the way that the economy has turned around to be less and less affordable for us to work for ourselves.

It's obvious gas prices are up, so to transport from home-to-home and do the business that we do, it's more taking out of the economy than helping us in the resource of making an income.

I appreciate everything that you are doing here to investigate what it takes to save the marine life and work with our country. But as a mother, more importantly than the animals at this point, is the survival of my family. I have five children and two grandchildren and their future is at

risk right now of a nation that we've become to be borrowers. We don't have bargaining power anymore. We don't know what our resources are. We are not prepared for the future. We are behind. And I want my children to have a ground to stand on, and there's only one way to do that, find out what is under the ground we stand on.

Right now I feel that all of the things that we're looking at is preservation for 400 years from now. Well, that's great. But I'm really concerned about what we're going to be looking at the next 5 to 10 years. We're not a nation anymore. We're a borrowing nation. We need to become a bargaining nation.

Thank you for being here.

MR. GOEKE: Thank you.

MR. BJERSTEDT: Patrick Hamilton.

MR. HAMILTON: My name is Patrick Hamilton and I'm a real estate broker in St. Augustine and have been for the last 25 years.

And when we had the BP oil spill in the Gulf, every condominium, every rental house,

every long-term motel filled up Crescent Beach in four days, because everybody cancelled their reservations in the Gulf.

And the people in the Gulf went broke. Lots of people who were in construction, lots of people who were in development, hotels, condominiums, have rental houses, they went broke because there was no business, because no one wanted to go there, and they came to where we are. And the reason they all came and the reason people come is because we live in a very vibrant area. We can see dolphins off the beach every day. You can see them in the intracoastal waterway.

People sat up on the whale patrols, and they allow themselves with the people with the marina and are told where to spot for whales from the different houses. People volunteer money. They bought a plane for the people down there. They've started a new whale festival.

The turtle patrol is the same and lots of the people who live on the beach now get up at daylight and go patrol for the

loggerheads and the leatherbacks that nest where we are. There is not protection here for the leatherbacks or loggerheads in north Florida, only in Brevard. It's a little like saying that the impacts are moderate because you can kill off the rural areas and kill everybody who lives in the county and we'll keep the populations in the city. Well, biologically, you need those diverse populations to spread their genetic pool, and that is probably not a very good way to run environmental impacts for those species, as well as different areas.

An oil spill would put me out of business where I live as a small businessman who has been there for years and years.

But not only would -- again, it is the seismic areas. The figures I've heard were that the airguns noise was loud enough to mask whales' calls literally for thousands of miles, destroy the capacity to communicate and breathe, and it can drive whales to abandon their habitat. If you are a fertilized rooferhead (phonetic) and you're out there in the gulfstream and you

hit the Charleston bulk, if you hit the swirl and you come along the coastal area, you have to come into the intracoastal and go up in the land growth and the spar-tidal marshes and whister (phonetic) reefs. Whatever that's going to do to those fertilized eggs is probably not addressed in your current studies.

I'm also the president of Joe's Fish Camp in Crescent Beach, and the impacts on fisheries, as well as mammals, make this proposal ridiculous.

Selfishly, from my prospects, for my livelihood, this is not a good idea. But also you teach your children to be respectful and for all of the other creatures on earth who we share the earth with, it's not a good idea and it's destructive of us, and we're urging that the administration chooses Alternative C.

Thank you.

MR. BJERSTEDT: Marcella Matthaei.

MS. MATTHAEI: My name is Marcella Matthaei. I am the treasurer of a small nonprofit organization dedicated to

preserving the area of Crescent Beach and further north that we live in and keeping it in the old Florida style and maintaining the resources that would associate with old Florida in such a way the river basin continue to produce fish, places for people to come surf, et cetera, et cetera.

We are extremely concerned about the proposal and strongly urging you to consider Alternative Plan C. There are many many reasons that have not been explored in the Gulf, unfortunately, I'm sorry to say. But there's no reason going anywhere near the Atlantic floor for many reasons.

Airguns noise in particular, it affects fish behavior and fish use on a broad scale. I'm very concerned about what the size of exploration is going to do to our very rich, but eroding southeast fishery area. We are basically a nursery for a great many remaining fish in the ocean, and one blast can injure up to 138,000 marine mammals and disrupt marine mammals feeding, calving, breathing and other activities more than 13 million times.

There are fishermen from Norway that have been seeking industry compensation for the amount of fish they've lost, commercial fish that they've lost, due to seismic exploration.

I would like very much to see you put as much energy as you can into the exploratory and developmental renewable energy and looking for innovative, creative new ways to sustain our needs for sanitation and energy. I would like to use the genius of our students. I would like to use our incredible capacity for innovation and imagination and move forward, rather than respinning the same old wheel over and over again until there is literally nothing left.

Thank you very much.

MR. GOEKE: Thank you. I appreciate it.

MR. BJERSTEDT: David Kaufman.

MR. KAUFMAN: Good afternoon. I'm David Kaufman representing the Jacksonville Port Authority. We're a public agency responsible for managing and marketing public seaport facilities along the Saint

Johns River.

As you know, the marine transportation sectors of our economy are heavy energy users. Cargo ships, land-side cranes, trucks and rail all demand indirectly on safe, secure, reliable, and affordable fuel resources.

A large portion of the goods that are transported by ship are directly associated with the fuel to power that vessel. More than 95 percent of the products we use every day have been carried to this country by ship and have come to one of our nation's seaports.

Ship owners are moving towards increasing size of the vessels and the energy efficient technologies in an effort to reduce transportation costs. It's continued to add to the burden that's escalating energy costs, affordable products on the shelves of your local retailer and quickly it becomes as no surprise that the additional transportation costs be passed on to the American consumers.

This is why the Jacksonville Port

Authority supports efforts to identify environmentally sound and conduct means to secure cheaper energy sources that advocates for a national energy policy.

Along with all of our nation's ports, we must maintain and preserve import/export businesses that we have, along with the critically-needed dollars that businesses create. We need to set our sights on future growth. This vision of the future requires controlling energy costs and seeking alternatives that make sense.

Thank you.

MR. GOEKE: Thank you.

MR. BJERSTEDT: Matthew Padon.

MR. PADON: Good afternoon. My name is Matthew Padon. I am with the Seaboard Exploration, BRA, geophysical contractor. I am here today representing the International Association of Geophysical Contractors.

On behalf of the IAGC and geophysical industry, I wish to express our appreciation for the opportunity to make the following comments which will be supplemented by written comments to BOEM regarding the draft

PEIS and G&G activities in the Mid- and South Atlantic OCS. IAGC commends BOEM for their efforts in advancing the PEIS to this point.

IAGC is the international trade association representing the industry that provides geophysical services, geophysical data acquisition, processing and interpretation, geophysical information, ownership and licensing, associated services and product providers, to the energy industry, including both the conventional and renewable energy sectors. IAGC member companies play an integral role in the successful exploration and development of offshore hydrocarbon resources through the acquisition and processing of geophysical data. In the past, IAGC members have expressed interest in conducting geophysical activities on the Atlantic OCS.

Geophysical surveys are key tools used in oil and natural gas exploration and siting of renewable energy facilities.

Geophysical data is critical to the

successful discovery and efficient development and production of oil and natural gas. Geophysical surveys are one of the very first tools used in the exploration process. And when applied early in the exploration process, will aid E&P companies in focusing their analysis and illuminate the most prospective areas for future oil and natural gas exploration.

The geophysical data is critical for the development of renewable energy, as well. High-resolution geophysical data and geotechnical borings provide important key data required to site renewable energy facilities and design the foundation of structures that will be required for the development of renewable energy.

Geophysical data is also very valuable to the federal government, and even to state government. BOEM utilizes geophysical data to assess the resource potential of the OCS and to ensure the federal government receives the fair value of their resources. Geophysical data is critical in aiding the understanding of the oil and natural gas

resources before the US OCS. This helps both federal and state governments to understand what may be at stake as they make public policy decisions involving the development of the offshore Continental Shelf.

The current hydrocarbon resource assessment of the Atlantic offshore Continental Shelf made by BOEM is based upon data which is over 30 years old. Today, seismic and other geophysical data acquired utilizes more modern technology to produce subsurface images which are much clearer than those from 30 years ago. It is this clear subsurface imaging which will allow for the elimination of areas that are unlikely to be prospective. In addition, this improvement in technology has resulted in fewer dry holes and a smaller exploration footprints, development and production facilities.

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

offshore Continental Shelf. And 40 years of experience in the US Arctic offshore Continental Shelf in planning, acquiring, and processing seismic data in an environmentally responsible manner. During that time, there has been no scientifically-supported evidence that routine seismic surveys result in biologically-significant population-level impacts for any marine mammal species.

Our industry employs operational practices which are designed to protect whales, dolphins and other 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 significant impact to marine mammal population, on and around 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.

Though additional information is needed in some areas, there is a significant amount

of scientific information available, many of it funded by government agencies, regarding the potential effects of exploration and production activities on marine environment. This information and data from the scientific literature, and not speculation, should be used when assessing potential impacts of geological and geophysical activities on the environment.

Of the three alternatives listed, IAGA supports Alternative A. The proposed action which allows the greatest coverage using deep penetration seismic and includes seasonal closure areas for the right whale.

We do not support a 40-kilometer separation distance between simultaneous seismic operations which is included in the mitigation measures proposed in your part of Alternative B.

Notwithstanding that geological and geophysical permits recently approved in the Gulf of Mexico, Western and Central Planning Areas include this mitigation measure as a condition of permit approval. It was not developed using any scientific or anecdotal

evidence.

We believe that PEIS should be expanded to include the North Atlantic Planning Area, as well. E&P companies need geophysical data that they can use to tie past and current production data from offshore Nova Scotia to the U.S. Atlantic basins. This is critical in development of knowledge shared between exploration companies. Without this new data, there will be a very significant gap in the regional work that E&P companies will want to perform.

The incremental cost and time to extend the PEIS to the North Atlantic Planning area would be minimal and would allow for geophysical data acquisition to occur for renewable energy citing 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 E&P 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 E&P companies, without any planned leasing in the next five years, the likelihood of the seismic contractors investing in non-exclusive seismic data acquisition is very uncertain.

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

We have with us today several educational items 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 those in attendance here in the room. I have some CDs with me if anyone is interested.

In conclusion, the IAGC wishes to again express our appreciation for the opportunity to voice our support and commitment to work with BOEM and all stakeholders in the development of the Atlantic PEIS.

As I mentioned, we'll be submitting these comments in writing as well. Thank you very much.

MR. BJERSTEDT: Arlyn Docking.

MS. DOCKING: My name is Arlyn Docking. I've lived in Jacksonville for over 45 years. I believe we need to do offshore exploration to help not only our economy, but to help the U.S. to become an independent energy.

We are all too dependent on other countries for our energy needs. With proper safety regulations, there should be no

problem with the exploration of the ocean, Bureau of Ocean Energy Management. Look into fuel resources for us. We need to get the grocery lines open and the people that work in them back to work.

Thank you.

MR. GOEKE: Thank you.

MR. BJERSTEDT: Brian Paradise.

MR. PARADISE: Good afternoon, gentlemen. My name is Brian Paradise. I'm here to present some comments and documents on behalf of Florida Chapter of the Sierra Club.

We are opposed to the proposed sites to be tested, as we believe there is overwhelming evidence of the seismic testing for the use of airguns causes death and severe injury to marine mammals such as whales and dolphins. We also believe that seismic testing displaces and descries capturing the various species of fish.

As evidence for these comments, we are attaching the following documents. And I will leave all of these documents out at the desk.

First document we have is a report which was published on April the 3rd entitled Dolphin Worry/Stop seismic Tests. And this report is of the Bureau of Ocean Energy Management. It's called Global Geophysical Services Not to Conduct Deep Penetration Seismic Surveys until May, after seven dead dolphins were found along the Louisiana coast. So this is your own agency asking for cessation of tests.

Second attachment we have is a report of April the 11th in the New Zealand Herald News entitled Eight Dolphin Deaths Based on Oil Exploration, which reports about 3,000 dolphins have died on a stretch of the Caribbean coast in recent months. In the article, a veterinarian called Thomas Nathan (phonetic) has expressed the opinion that the deaths were the result of seismic testing in water.

And I have got three attachments of scientific papers which talk about the reduction in fisheries from seismic testing.

I've also got an information sheet on the Natural Resources Defense Council dated

May 20, 2010, entitled Boom Baby Boom, which outlines many of the environmental impacts of seismic surveys. And also an information sheet entitled Seismic Airguns and Fisheries, outlining the impacts of seismic surveys upon fisheries.

Final attachment is a report in the Times-Union of Jacksonville on April 2nd, recording that only six right whales were born this winter making the season one of the poorest calving seasons for the endangered northern right whale in decades.

We believe that the evidence shows that the proposed seismic testing will be very detrimental to our oceans. Because to search for oil and gas, the industry uses an array of airguns which are towed behind ships and releasing intense, blasts, compressed air into the water. This is just about the loudest sounds humans make short of explosives. Imagine dynamite going off in your neighborhood every 10 seconds for days, weeks, and months on end.

Now, imagine that you depend on your hearing to feed, mate, travel, communicate,

and do just about everything else necessary for survival. That is the situation that endangered whales, connatural and recreational fish, and our water life are facing with airguns exploration.

This activity has a huge environmental footprint. Airgun noises loud enough to mask whales calls have literally thousand of miles destroying the capacity to communicate and breathe. It can drive whales to abandon their habitat and cease faring over vast areas of ocean.

For example, a single airgun array in the North Atlantic coast endangered fin and humpback whales to stop singing, a behavior essential for their mating and sparing and abandon habitat over an area of more than 100,000 square miles in size, closer in it can cause hearing loss, injury, and death.

Rig oils already apply to airgun masks to run hundreds and thousands of miles of airgun surveys off the east coast. Over the next eight years, according to the administration's own estimates, seismic exploration would injure up to 138,500

marine mammals and destruct marine mammal feeding, calving, breathing, and other vital activities more than 13.5 million times.

Airgun booming and oil and gas development more generally threatens our fishery and coastal economies. Airguns are being shown to displace the natural species of fish horizontally and vertically in the water column on a vast scale over thousands of square kilometers. The result is being dramatically depressed hatcheries of species of this rock fish and others areas as large as the state of Rhode Island leading fishermen in Norway and other parts of the world to seek industry compensation for their losses.

Seismic testing has negative impacts on commercial and recreational fishermen. Commercial and recreational fishing off the Mid- and Southeast Atlantic, not including New Jersey, generates 7.4 billion annually and support 180,000 jobs. As noted above, fishermen in some parts of the world where seismic testing is already occurring are seeking industry compensation for their

losses.

Green light (phonetic) seismic also imposes a threat to the 20 million whale watching industry in the Mid- and Southeast Atlantic. And if the administration takes the next step and opens up the coastal oil and gas drilling, the entire 22 billion coastal tourism and recreational industries are at risk, just as they are in the Gulf of Mexico.

To reduce harm, BOEM must keep airguns out of sensitive and environmental areas, promote use of green alternatives and require companies to share data.

The only other action that the administration has proposed to protect the critically-endangered right whale is grossly inadequate given the distances noise travels.

Under the administration's proposal, a survey can take place right on the edge of the right whales only known calving grounds, frequently filling it with destructive sound. No other species or fisheries would receive even this much protection.

According to two expert reports, including one funded by the oil and gas industry itself, green alternative energies that can substantially copy the environmental footprint of airguns in many areas are already well into development and can be available for commercial use in 3 to 5 years or less. Yet, the administration is opening the floodgates now in areas it doesn't even intend to consider leasing until well in the future. There is no reason to rush ahead with this dangerous activity before safer greenhouse -- excuse me, greener technologies are available.

Incredibly, the administration's plan would allow seismic operators to reshoot the same areas again and again, so they can repackage the same data as big oil companies. This is so even though the agencies are independent experts that call for data sharing to minimize impacts. And so on top of everything else, the administration is needlessly adding to the impact on wildlife and fisheries

indifference to a wealthy industry's profit, squeezing business model.

Booming and drilling are thought to -- if we care about our fisheries, our marine life and our coastal economies, the right vision is offshore renewable, like wind farms. Scanning the ocean floor for wind farm development uses a technology that is safer than airguns.

We ask the administration to choose Alternative C and release an environmental impact statement focused on the above.

We would also like to request that BOEM review the following reports --

MR. GOEKE: Excuse me.

MR. PARADISE: -- according to the workshop on alternative technology to seismic airgun surveys for oil and gas exploration, which is detailed in the report, existing and future protection plan for reducing underwater sound from oil and gas industry activities.

MR. GOEKE: Excuse me. Are you about to wrap up?

MR. PARADISE: I'm about to wrap up.

MR. GOEKE: Please proceed.
MR. PARADISE: NC report 07001 which is prepared by noise control in an area.
Thank you very much for your consideration.
MR. GOEKE: Are you going turn a hard copy of that in?
MR. PARADISE: Yes, sir. Would you like it now?
MR. BJERSTEDT: That's fine.
Ray Morton.
MR. MORTON: Good afternoon. My name is Ray Morton. I'm a natural born citizen. I'm a former U.S. Army Green Berets. I am an engineer and physicist. I graduated as an ocean engineer from Florida Atlantic University in Boca Raton. I am an applied theoretical physicist.
Formerly I was on the Chevron Corporate Offshore Technology and Planning staff where I handled all high technologies for all of Chevron. I can tell you everyone that I met at Chevron were avid environmentalists. If we had a spill, we couldn't sell it, so we had to clean it and we had to pay fines, so we didn't want to incur that.

I have also done engineering on just about every kind and system of U.S. made in platform, including nuclear submarines and warships to include their sonar sensor suites, both passive and active, so I think I speak with some authority regarding the issue at hand.

Dr. Bjerstedt, I would like to commend you on an excellent high-level summary on this issue. We need acoustic tomography which is a three-dimensional map. CAT scan, in medical terms, is a computerized axial tomography. Now, in order to plan environmentally safe extractions of resources, I listened with interest to your briefing and feel what the mitigation is saying is well-thought. In my experience at Chevron, we had no kills that came to my attention, and I monitored that very closely at corporate direction.

As a rebuttal for some people -- I know this is a little bit off topic -- NASA data showed there was some global warming, but it was on all planets in the solar system. So I wonder how driving my car less on planet

earth reduces global warning on Jupiter and Mars.

We did extensive exploration in geological survey and so forth in the Arctic when I was at Chevron, and subfloor geologically cords clearly showed a solar occipital event of hot and cold, Ice Age and warming. So it seems what we are experiencing is part of such a solar cycle.

Also, in the Arctic Ice there is a black carbon zone from the Industrial Age where wood and coal was being used for energy and the carbon dioxide levels in the atmosphere were huge, much more so than now.

The greatest greenhouse gas is water vapors. Perhaps we should pass laws against water. The next most right down from it is methane and then way, way down on the list in third place is carbon dioxide. So I think that is a foolish remark regarding doing a survey for making a realistic and highly detailed three-dimensional map at Sub C structures and resources.

So I would recommend that you go forward. And I will read the report in

detail and comment if it's appropriate.

Thank you.

MR. BJERSTEDT: Martin Miller.

MR. MILLER: Greetings and thanks for giving me the opportunity to speak. I'm Martin Miller of St. Augustine. And I'm just a citizen, retired civil servant.

I'm here first of all -- I'm going to jump around, but I'm here as a proponent of, I guess it's Option A. We need responsible exploration testing and drilling. Okay.

We heard people talk here about protecting marine species. Well, I'm aware that there is a species called homosapien that's being threatened. A lot of people because of the economic conditions, parenthetical note, Florida and some communities, the unemployment is much higher than the national rate. And there are people that are doing suicides that are from depression because by three weeks $5.00 a gallon gas is a problem for a lot of people. Okay. So we need these resources. We have to go out and find out where they are and get them.

While we're fooling around, I understand that out China through Cuba is doing diagonal drilling and they are drilling into some of our land or whatever, China's expertise of doing this. They are doing it all around the world. We're fooling around and they are taking oil. If we were going to have a moratorium and no drilling, then we would save everybody else, China and go back home. You don't drill. If they drill, we drill. Because they are not -- as far as I know, there is no oil in China. They are taking our oil. Okay.

When people talk about protecting the marine species, I'm remembering the Marines and the Army and the Navy in 1991 in the Gulf War when Saddam Hussein went into Iraq. Okay. As far as I remember, our tanks are not electric or hybrid. They use about 10 gallons to the mile or something like this, so we needed to fuel them.

Let's talk about animals. Saddam Hussein in 1991 went into Kuwait and he devastated their zoos and that was reported in the Readers Digest. They did things to

these animals that I cannot even mention. Okay. So what about protecting those species too? The way we protect them is by having our military, which has to be fueled. Okay.

We're talking about all of these -- I'm an animal lover. We're talking about protecting this species and that species. This is a species that has to be protected because this -- the human species is what makes it all happen. If we go away -- I love the whales, but they can't go out and they can't take care of the ocean, we can. Okay.

There are organizations like Sea Shepard that go out and fight against whaling. Nobody ever mentions Iceland and Japan and what they are doing with whaling. They are always -- nobody -- they're invisible. Okay. It is always us who is the bad guy.

What I wanted to say we have to protect humans first. Okay. We make it all happen. We are the catalyst. And as far as talking about the -- all of these different

turtles -- about two years ago in north Florida we had the longest stretch of winter in years and a lot of these sea turtles froze to death. Now, we're not supposed to touch them by law, but the turtle patrol was taking in turtles to warm them. They were breaking the law, so sometimes if you break the law you are doing compassionate. But they're breaking the law. Nature made it cold. I don't think global warming makes a long stretch of cold in north Florida. A lot of turtles died and we feel bad, but that's nature.

What do we do if there's a volcanic eruption? What about when we had the Tsunami in 2004? Did we go out to rescue the animals? I didn't hear about that. I didn't hear about the Sierra Club talking about well, how many animals did we rescue from the Tsunami? All right. It's always they are doing it like preemptive as far as well, we can't drill because of what might happen. That's not correct. We have to do it responsible. We have to go out and test. And we have to do -- whatever we have to do

and pull the oil out.

And I will say this. The technology that we have today is much better than we had 20, 30 years ago. So a lot of this stuff, the threats and the scare tactics are nonsense. They're just telling us stuff because -- if you live near the beach, then you don't have to worry about it. Like you don't hear too many people that are outskirt talking about the beaches. People next to the beach, they don't want beach driving. They don't want all of these things, because they are where they want to be. It's the other people who aren't. All right.

With the price going up to $5.00 a gallon, we need drilling. We need exploration. And we need to stop China from stealing our oil, because that's our oil. And China is not going by any regulations. We've gone over to Africa and other places and Brazil, they're drilling for oil. Let's not let China step on us. Let's do what we have to do.

Thank you.

MR. BJERSTEDT: LeAnne Kolb.

MS. KOLB: I'm so glad that you guys are here in Jacksonville first, because you're not tired of listening to all of these hearings.

My name is LeAnne Kolb, and I'm actually running for the United States House of Representative in the new congressional District 5. It was 3.

I think it's important to make sure that we have the most current and up-to-date information in order to make the best decisions for Florida and the United States, ultimately.

Our future generation they're watching us, and they're depending on us so that we can leave them better off than we were. And we are threatened right now to be the first generation that has not left a better America for our future generations that are coming up, and I think that's a travesty.

I think in order for that to happen, we need to make energy independence an absolute realty for our future generations coming up. We would be negligent, also, not to realize the immediate need of increased jobs and

lower prices of gas, that is, obviously, something that needs to be addressed. And I think that with the -- what you are proposing with Amendment A, you would definitely be able to increase jobs and I think that would be a bonus for Floridians in general.

In my opinion, not only should it be surveyed, but we should also move forward with leasing and drilling in an aggressive manner.

Thank you very much for your time.

MR. GOEKE: Thank you.

MR. BJERSTEDT: James Arpaia.

MR. ARPAIA: James Arpaia. I'm from St. Augustine. Former marine. Retired.

You can tell it's an election year. I think it was just before the previous election when the Obama administration released the leases on the east coast for drilling or for purchase. Shortly after that, we had the BP disaster, and he removed all of the drilling in the Gulf that had been going on for close to 20 years without an accident, but because of that BP, he shut

down all oil drilling in the Gulf and removed the leases on the east coast.

The same environmentalist who said that it would take a hundred years to clean up the oil spill that happened with BP and that the oil was going to go around the Key West and up the east coast and was going to pollute the ocean for the next hundred years disappeared in six months after the oil spill.

In the meantime, the government wanted wind mills. They were going to get wind technology. I never heard of the EPA going after the thousands of dead birds that lie underneath every windmill and there's thousands of windmills sitting out in Texas and in Nebraska, because they're -- number one, they don't work; number two, there's no place to send the electricity because there is no power lines. So that huge investment into a technology that maybe some day will work, isn't now.

Our economy is based on oil. We can't move a thing in this country without oil. We need the exploration on the east coast.

We need the oil drilling everywhere.

The government I understand now is going to be giving Aleutian Islands to Russia where they will be drilling off the coast of Alaska and not us. Why? Because the EPA says no, you are going to harm the polar bears or something. They have been drilling in Alaska for years without any damage, without any suffering by any animal anywhere.

It's time that this government realizes that we need the oil here and now. This should have been done 20 years ago. The last election they said, Oh, no, we can't drill now. It will take 10 years before we see any oil. Well, it's 10 years later and we still don't have the oil, so now we're having these meetings and we're going to be another 10 years before we see any oil.

In the meantime, the government is asking Saudi Arabia to drill more and to pump more, so that it's price can stay. He wants the price up. He wants $5.00 and $6.00 a gallon so he can sell more electric cars and where is the electricity coming

from?

It is time that we do common sense and drill now and drill here.

Thank you.

MR. BJERSTEDT: Ed Raube.

MR. RAUBE: Thank you for coming to Jacksonville and visiting with us first. My name is Ed Raube and I live at Atlantic Beach on the beach, so yes, I love it. And -- but I'm also an American and I also amongst everyone else here, I don't think anyone rode a bike here today, but I think we all drove. We need to perceive and do the studies, find out what we have and go for it.

Just as the prior gentleman mentioned, the other countries in the world are taking our resources away from us. Just because we are not -- or we don't want to offend anyone by being politically incorrect and doing something that should help America and Americans first.

So yes, I am all in favor of doing the searching, find out what resources we have, doing it in the safest manner possible, and

proceeding forward to help build -- or fix the ills that trouble America.

Thanks.

MR. BJERSTEDT: Kevin Bodge.

MR. BODGE: I am Kevin Bodge with Olsen Associates located here in Jacksonville and I am a coastal engineer.

And my comments are directed specifically to the marine minerals element of the program. The city of Jacksonville, Duval County relies on sand from our Outer Continental Shelf which is included, of course, within this programmatic EIS, that is the sand for our various nursing project comes from the seabed that your organization regulates.

My professional opinion this programmatic EIS suffers greatly from several fundamental flaws, central of which is the alternatives lumped together, oil and gas with the marine minerals program. It lumps all of the acoustic devices together with airguns.

The alternatives as proposed, place a huge cost burden on our local government,

because the restrictions associated with the use of low-energy standard acoustic surveying devices that your leases require us to do. That is, it lumps together airguns with lower energy chirp devices. And, for example, the array of alternative -- or the array of equipment being examined, didn't even consider standard dual-frequency thermometer, which is a standard survey devised used by our surveyors to take these surveys.

It is my opinion that the alternatives that you consider A or B needs to specify a distinction between equipment. That is, you need to recognize the different of impacts between low energy, high frequency sounding devices that are used for mineral management -- excuse me -- for sand and gravel research versus those that are used for the oil and gas industry.

As you noted, the sand and gravel resource is a very, very small part of the oil and gas and renewable energy resources that your organization oversees, yet the alternatives throws this small baby into

shark pool with everyone else and puts an undue burden upon those agencies, like the City of Jacksonville and other communities in Florida that rely on offshore sand and gravel.

Many of the impacts that are cited in the programmatic EIS are not likely based on scientific sound data. For example, where is the data that high frequency sounds, acoustics, that we use for sand and gravel affect marine turtles? There is none. It's speculative. Yet your Alternative B proposal would allow us to survey the offshore bar area in Duval County for only two weeks in the spring and two weeks in the fall. I can't do that. We don't have the weather windows in order to do that. And there is an indication, oh, exemptions will be given on a case-by-case basis. But the record alone clearly shows that this places an undue burden on the government and certainly one upon local governments that are trying to do these surveys.

Getting permission to explore for sand and gravel resources off of the coast of

Florida takes forever. And now, we need to get the same kind of permits and approvals just to do a standard demographic survey? Oh, and how can I ensure that my survey is being taken 40 kilometers away from another survey, when most of the surveys are occurring in state waters? Does that mean that every one has to report to the federal government as to what their acoustic survey devices are and when they are going to be operating?

All of these alternatives, in my opinion, have not been thought through. In closing, I would highly suggest, recommend, request, that the alternatives as formulated specify an exemption. A blanket de minimis exemption for those low energy, high frequency sound devices that don't have significant impact to marine mammals. That is, don't subject those of us using the low impact devices to all of those associated to those that are important for the oil and gas industry.

Thank you for your time.

MR. GOEKE: Thank you.

MR. BJERSTEDT: Karen Morton.

MS. MORTON: Thank you for being here today. My name is Karen Morton. I'm from Jacksonville, Florida.

And I have to say that watching your presentation on the screen, it brought back chills. I used to work for the government myself. I try not to remember the bureaucracy involved in trying to put something together like this. And I was struck by the levels of bureaucracy you had to jump through in order to get this report completed. And I thank you for bringing it to us and I thank you for getting this far. It is huge to at least put on the table the fact that yes, we do have exploration.

I also have been struck, you know, kind of listening to some of the environmental comments. It doesn't appear through the work that you done or the continuing collaboration that you will be doing with the EPA that you have left a thin or a piece of coral unturned in trying to make sure that things are being done in an appropriate manner that are both ecologically and

environmentally sound.

So I don't see any reason for us not to proceed with Alternative 1. I encourage that it be begun as quickly as possible.

And in addition to the exploration, which absolutely has to be done, as American citizens, you know, like I said, it has been several years since we've had any type of mapping. We know with our new technologies that there's a lot more out there. And I think people need to know what we have available so that we can make proper and valid decisions as to what we can access and how we can go about that.

I also urge the government to make the sales of leases available immediately upon determining what's available, and as well as allowing the companies to proceed with actual production, rather than selling the leases and sit on them for years.

I really don't see that there should be a kind of arbitrary time period where we would have to wait prior to the sale of leases and prior to production, you know, once we've determined that the resource are there and

accessible and it can be done appropriately.

So I thank you again and I appreciate your time.

MR. BJERSTEDT: Ray Morton.

MR. MORTON: No, I've already spoke.

MR. BJERSTEDT: Chris Verlander.

MR. VERLANDER: Good afternoon. My name is Chris Verlander and I'm vice president of Corporate Development for Associated Industries of Florida. AIF, as we are known, was established in 1920, and is a voluntary association of diversified businesses, created to foster an economic climate in Florida conducive to the growth, development, and welfare of industry and business and people around the state.

We are not-for-profit organization, and it's solely owned by our members, which hail from every corner of the state and represent every segment of Florida's private sector.

Thank you for the opportunity to speak today about this PEIS, which will support the issuance of permits to conduct geological and geophysical study activities on the Atlantic Outer Continental Shelf.

AIF supports the generation of seismic data that will allow for more accurate estimates of the potential and location for oil and natural gas development in the area. We can create more jobs, as it has been mentioned earlier, and generate more revenue if allowed to responsibly develop and produce here in the United States more oil and natural gas that we need.

As mentioned earlier by the Wood Mackenzie study, it can generate 161,000 thousand-plus jobs. These are not limited jobs directly associated with oil and gas, but created indirectly by the companies that supply equipment and other support service for onshore and offshore.

In addition, as the Wood Mackenzie study showed, $24 billion in revenue could be generated from 2012 to 2030 if this offshore development in the eastern Gulf happens.

To summarize, energy, security, and affordability remain key aspects to successful long-term economic recovery and growth in Florida, and the nation in

general. Recent technological advances in exploration and production have led to tremendous potential in meeting future energy demand with domestic resources allowing the United States to better manage our risks in the global energy market. The development of energy resources will lead to more energy security, more jobs, and more government revenues.

We appreciate this opportunity to offer supportive comments on this PEIS for geological and geophysical studies in the Atlantic OCS.

Thank you very much.

MR. BJERSTEDT: Jineane McMinn.

(No response.)

MR. BJERSTEDT: Jineane McMinn, is she here?

(No response.)

MR. BJERSTEDT: Jason Kischner.

(No response.)

MR. BJERSTEDT: Is there anyone else who wishes to speak? That's the last of the speaker list.

MR. WING: I wanted to speak. Thank

you very much for this opportunity to come here.

My concern, or worry, is that one gentleman was correct when he was saying the endangered species will be the American citizens clambering after we have $7.00, 8.00 a gallon for gasoline, such as they have in Europe right now. It's estimated by the Florida Economic Council that your gasoline is allowed to go up to that point, 7 to 8 euros, as President Obama and Mr. Cheney said, that we will lose the poor people in this state. And I will be specific. I will say Jacksonville, Florida. 42 percent of people in Jacksonville, Florida earn $25,000 or less, 42 percent. If those same people have to pay $7.00, 8.00 a gallon, it's estimated that the unemployment in Florida -- I'm talking about the whole state -- will decrease, because people cannot afford to even get to the jobs. It will decrease by 10 percent. In other words, we will have 10 percent more unemployed people. That would be great, wouldn't it?

I have sources -- and I'm in the oil business in Texas right now. I work with the people that take the big tankers and the 16-wheel trucks and all of that type of thing, pick up the products at the well, and then take it down there, for example, Corpus Christi.

Did you know -- you do, because I told you. There are people right now from China working in Corpus Christi, and certainly the Panama Canal, which they are going to control, wanting to get oil out of Texas right now, as soon as that Panama Canal is finished, and guess where they are going? They are going to take our oil all the way over to China. That is what they are going to be doing.

A truck driver, for example, right now in Texas -- that is what I deal primarily with. A truck driver will make 4- -- it will net $4,000 a week driving a rig right now into Texas oil fields. What we want to do in Florida is we want to hire similar people that they make a very responsible living.

Now, for the people who were worried by

the environmental-type thing, I'll tell you what. When they start going down to Cape Canaveral and start eating turtles because they can't afford to eat because of the price of gasoline, you'll find out where the turtle thing stands. I can tell you that right now.

Or, if they can't afford to get down there in they Chevy Volks, which of course they never bought, and I hear all of these radical environmentalists they start talking about things and you go out there and what do they got? They are driving one of those big Cadillac Seville or something like that. Amazing. But since Dr. Chu and the President Obama, they don't want to explore the oil. They want to put us at worldwide disadvantage so that we can export our dollars over to places like Saudi Arabia, Iraq, Iran, the whole thing. What are we doing? We are diminishing ourselves. We're totally diminishing ourselves.

The other thing is why do we continue? For example, we are worried about production of oil and that type of thing. Why do we

continue the FET test, Federal Excise Tax, on the equipment that we're buying right now use in the oil fields? Why don't we do away with that to make it more economically feasible to be in the oil business and have increased production?

I would say one thing. If I were a company a produce -- BP, Chevron or whoever, and I knew that in that map right there that there was absolutely no guarantee that if I did all of this surveying of the ocean fronts and all that, I would say there is all kinds of gasoline there. Guess what? Nothing is going to happen. Do you know why? Because the Obama administration will kill the drilling. And nobody is going to do all of that research -- and he should be happy (indicating) -- nobody is going to do any of that drilling because -- excuse me, the exploratory work, because they know they will never be able to use drilling.

MR. GOEKE: Sir.

MR. WING: So it's a moot question.

MR. GOEKE: Sir. Please address your comments to the front.

MR. WING: Yes, I'll do that. For as long as he took --

MR. GOEKE: Do you have a clock on?

MR. WING: Thank you. Thank you.

What we have here is by the environmental people a war on what they consider is what carbon produces. It's ridiculous. And like I said, they are all driving their Chevy Escalades or whatever you call it down here and all they want to do is be on TV or something like that.

The job situation is what concerns me the most. We have like 9.4 percent unemployment in Florida right now. If we were to open up these jobs, and not people just actually working in Florida, but I can take people from here in Jacksonville or here in Florida that, for example, have a very good record on truck driving and that type of thing and I can double or triple their income --

MR. GOEKE: Sir. Sir.

MR. WING: -- down in the oil fields. The oil fields are critical.

I want to thank everybody here for your

opinion and your response and all of that type thing. Remember one thing, in November the real decision will be made.

Thank you.

MR. BJERSTEDT: Sir, would you mind giving your name to the court reporter?

MR. WING: I did.

MR. BJERSTEDT: Okay. Thank you.

Is there anyone else? Yes. And could you speak into the microphone you name and spell it for the court reporter?

MR. TRIGUERIO: My name is John Triguerio, T-R-I-G-U-E-R-I-O. I'm just an average citizen here in Jacksonville, and I fully support the exploration, because literally in theory we acknowledge power. How are we going to position our argument for or against exploration and drilling if we don't know what's exactly there? The information and the tools that we have now in order to chart that data is way better than it was before, so we have a better grasp and more knowledge as what to go after.

I'm also a stroke patient and a heart

patient. With the gas prices the way they are right now it's kind of hard to decide whether or not should I go to the cardiologist or can I afford to go to the cardiologist. These medications are expensive, but can I afford to get my medication or am I going to have to pay $6-7.00 a gallon just to get to the pharmacy to try and get the medication?

I'm looking out for the families across this nation. The families itself rely on consumer goods. Everything we have is shipped or transported one way or the other, and if gasoline goes up, so does the cost on these products and services. So if we don't explore and at least see what's available for us to obtain, then we're basically hurting ourselves.

And on a side note, I would love to get the United States independent of foreign oil, because I seen what happened in Egypt during the uprising, and Libia, as well as when Iran was trying to threaten to close the Straits of Hormuz. That oil went up. That is not what we need here.

I'm actually seeing commercials on TV today that say why don't we help Brazil become independent on foreign oil and help jump start their drilling process. I'm not worried about Brazil. I'm worried about the United States and its citizens.

Thank you.

MR. GOEKE: Thank you.

MR. BJERSTEDT: Just speak your name and can you spell it for the court reporter?

MR. MILLS: My name is Jake Mills, J-A-K-E M-I-L-L-S. I drove here with my daughter from Tarpon Springs, Florida, over on the Gulf coast. She is home schooled, so everything is okay.

Since everybody is giving their military background, I'll just give you mine. I'm a veteran of two wars, Iraq and Afghanistan. And even though we had great surveys, we still never knew where we were.

I come from a unique background. I grew up in West Virginia for the first half of my life. I saw mountain top removal for coal. I've seen natural gas exploration. I've seen the regulation of the bi-product,

the toxic bi-products of natural gas. The regulation of that. The limits have been reduced to allow more toxic levels, because they couldn't get it regulated.

And I have also lived in Texas, and I apologize to my kids for that, where they had oil drilling right off the coast, and they have Galveston Beach, which is down there. On the beach they sell tar remover, because the beaches are just disgusting, nobody swims there. And it is because although the drilling is supposed to be safe, it is never truly safe. There is always oil spills, even though it's not always the magnitude of the deep water horizon, but there's always oil being spilled there.

Also my wife's family is all in oil. They are either in the production side, logistic side or the construction side. The jobs that are going to be created in Florida from drilling will be temporary will be temporary and they will be outsourced to the states where they are familiar with this, where companies are already established.

They will move them in. They work here on a temporary basis, and then they go back home whether to Mississippi, Louisiana, or Texas, so that's my view on the jobs.

Like I said, I live on the Gulf coast. I also have a family that lives in Louisiana. As far as gas prices go, there is direct correlation for the supply of gasoline or oil to the cost that we pay at the pump. In Louisiana they not only have offshore oil drilling, but they also have refineries, as well as Texas does. When I lived in Texas, gas was .05 less per gallon than it was in Florida. In Louisiana it was .10 less.

Now, when you look Alaska, they also have oil drilling and refineries. They pay some of the highest prices than anywhere in the country, so there is no correlation.

Also, gasoline is a product of capitalism. It's a free market. The leases are sold to the highest bidder, as well as the product. The product goes to whoever wants to pay the most. If you want to federalize oil drilling and gas production

and gas sales, then you can probably talk about prices going down. But until that happens -- and I don't see it happening, because we live in a capitalist country -- there is going to be no correlation between lower gas prices and where and when we drill.

I apologize. I didn't know that this meeting was going and I didn't know anything about the survey, so I kind of scrambled in the few hours it took me to drive over here, and then wait for the meeting to start.

But some of the things that disturbed me about just the surveys is that this an obvious first step to oil drilling. I also read that your agency is the fifth leading source of money for the government. So, you know, I know we're not really supposed to pose questions here, but I'm just wondering how your agency, if you're just here to survey and see what is available out there, how are you making money for the government?

The environmental impact, obviously, is great. When the oil spill happened, it became my obsession to do -- to learn

everything about oil drilling, so I went to Louisiana. I saw beaches that were closed. I saw news reporters that weren't allowed to ask questions or find out what was going on. I saw people that weren't allowed to take their own water sampling. And then a few months later, I saw that the beaches were open, and yet there were people in full -- like hazmat suits doing oil sampling and there're kids running in and out of the water. Now, if those guys are protected, you know, what's going on with those kids?

And just the other day in my local newspaper, the local college did a survey of the waters in Pensacola and they're still crescent (phonetic) in oil in that water. It is hidden. You can't see it with the naked eye, but when they run it over black light, it was all of these kids' legs. So it's still there, you just can't see it, which is the purpose of crescent to begin with.

The jobs lost, and the jobs, it's kind of a risk/benefit. Like I said, there would be some jobs created, but the jobs lost would

be like in my county. We rely on tourism. And right now I'm a firefighter. I wouldn't be directly injured by the oil spill. You know, I wouldn't go to the beach, obviously. But real estate would go down. That would mean we would have to lay off people. Tourism would close, restaurants would close, and fisheries would close. And that all happens in Texas, Louisiana, Mississippi and Alabama. Those were all things that really happened and would happen in Florida.

I guess that's all I've got. Those are my concerns. You know, I'm open to anything, but like I said, this is a risk/benefit. Florida relies on tourism. We rely on beaches. We rely on the water. Bringing in something that's going to pollute all of that, it's going to be nothing but bad for Florida.

So thank you.

MR. GOEKE: Thank you.

Any other comments?

(No response.)

MR. GOEKE: Well, I want to repeat that I appreciate y'all coming out. This has

been a long process. We are working very hard to make sure we can capture your comments and your thoughts and get this into our document.

Keep in mind that the comment period remains open for a few more weeks. You can go to the website and access an e-mail address. Tom had it on the bottom and it's most of the literature that's been handed out at the front desk.

What we're going to do, unless we have someone else who wishes to speak, we're going to close this down. We are having another meeting this evening at 7:00, so tell your friends.

Thank you. I appreciate y'all coming.

(Thereupon, the meeting concluded at 3:26 p.m.)

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C E R T I F I C A T E

STATE OF FLORIDA)
COUNTY OF DUVAL)

I, Colleen C. Lee, Court Reporter for the State of Florida At Large, certify that I was authorized to and did stenographically report the proceeding and that the transcript is a true record of my stenographic notes.

I further certify that I am not a relative, employee, attorney, or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

Dated this 25th day of April, 2012.

Colleen C. Lee, RPR
Court Reporter

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