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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
7:00 p.m.

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

Tom Bjerstedt, EIS Coordinator

Jacksonville Marriott
4760 Salisbury Road
Jacksonville, Florida 32256

Reported by Colleen C. Lee, RPR

1 PROCEEDINGS

2 MR. GOEKE: Let's go ahead and go on
3 the record. We are going to go on the
4 record.

5 Good evening. Thank you all very much
6 for showing up. We appreciate y'all coming
7 out on a Monday evening.

8 My name is Gary Goeke. I am the chief
9 of the regional assessment section with the
10 Bureau of Ocean Energy Management in New
11 Orleans. To my right is Tom Bjerstedt. Tom
12 is the EIS coordinator for our EIS that
13 we're talking about this afternoon.

14 We have a couple of a little
15 housekeeping details. When you came in, you
16 had the option to sign up, and we use that
17 for a couple of different things. If you're
18 interested in what is happening with this
19 document or other documents as we create our
20 environmental documents, you can get your
21 name on our mail list. Signing in puts you
22 on our mail list where you will get
23 information as the new documents come out.
24 If do you not want to put your information
25 down, if you're not interested in the

1 federal government sending you e-mails,
2 that's fine. We understand that. But we do
3 also use that sign-in process as a head
4 count, so we can keep track of how many
5 people are coming to our meetings tonight.

6 With that, I'm going to turn you over
7 to Tom and let Tom run the evening.

8 MR. BJERSTEDT: Good evening. As Gary
9 mentioned, my name is Dr. Tom Bjerstedt.
10 I'm with the -- a BOEM coordinator for
11 preparation of this draft Programmatic
12 Environmental Impact Statement, which is the
13 subject of our meeting this evening.

14 I was the contracting officer's
15 representative for the contract that we
16 initiated to have the environmental review
17 prepared by CSA International, Incorporated,
18 based here in the great state of Florida, in
19 Stuart.

20 Tonight we're going to be discussing a
21 draft Environmental Impact Statement. I'll
22 just drop "corporate management" and just call
23 it "EIS," or Environmental Impact Statement,
24 that we prepared for proposed geological and
25 geophysical activities in the Mid- and South

1 Atlantic Outer Continental Shelf planning
2 areas.

3 This is the first of a second evening
4 meeting for our first city in Jacksonville.
5 The series of meetings that we have
6 publicly-scheduled -- it's in all of our
7 newspaper notices, Federal Register,
8 et cetera, to announce the availability of
9 this draft document. You can see we'll be
10 having a series of meetings all across the
11 eastern seaboard in towns and cities that
12 are adjacent to the planning areas that are
13 at issue here.

14 We have distributed a draft
15 Programmatic EIS for a 60-day comment
16 period.

17 The Federal Register notice was
18 published on March 30th in the Federal
19 Register where the government publishes all
20 of its business activities.

21 We are here today to record and collect
22 your comments for revision of the draft in a
23 final document that will be, in turn, used
24 for the Department of the Interior,
25 Secretary of the Department of Interior, to

1 make a decision on the proposed action,
2 which I will go over in a minute.

3 The public input is an important part
4 of the National Environmental Policy Act
5 process, the procedure by which federal
6 government exposes its decisions for major
7 federal actions to public review and input
8 before they are finished.

9 The purpose of the EIS is to assess the
10 potential environmental impacts of various
11 types of geological and geophysical activity
12 on these planning areas.

13 We will be -- in the Environmental
14 Impact Statement, we projected levels of
15 activity in the planning areas out to 2020,
16 based on expert review and opinion from the
17 agency and input from industry of what their
18 interest might be.

19 Identify means by which to reduce or to
20 eliminate impacts on affected resources that
21 are in these areas. I'll go over what those
22 are. And the purpose of the programmatic
23 evaluation is to provide information and
24 analyses for the bureau, us, Bureau of Ocean
25 Energy Management, and other agencies have

1 responsibilities under environmental law
2 for -- before decisions to authorize these
3 activities on the Outer Continental shelf
4 are made.

5 The proposed action in the
6 Environmental Impact Statement is to
7 authorize geological and geo -- geophysical
8 activities required to support the three
9 program areas that the bureau manages.

10 These fall into three categories: Oil
11 and gas; renewable energy; and a smaller,
12 but no less important, program for marine
13 minerals, borrowing and use.

14 Mid-Atlantic planning area is this
15 large tract of federal land. The southern
16 Atlantic -- South Atlantic planning area is
17 here (indicating). In the dotted light blue
18 is the edge of the exclusive economic zone
19 for the United States. The more -- the less
20 distinct line, this purple line
21 (indicating), is the limit to 350 nautical
22 miles from shore. These are the territorial
23 seas of the nation. This region between the
24 exclusive economic zone and 350 nautical
25 miles is extended Continental Shelf. Under

1 treaties that the United States has signed,
2 there are provisions for the United States
3 to lay claim to or to apply for having these
4 lands added to the exclusive economic zone
5 of the United States.

6 The procedure is identified in treaties
7 that have been constructed by this country
8 and it involves data gathering and
9 collection and a series of procedures that
10 perhaps a lawyer would know more about.

11 But we decided to include this region
12 in our evaluation because the United States
13 may at one point elect to have this area
14 added to the exclusive economic zone. We
15 figured that it was probably a pretty good
16 idea to include it in our evaluation because
17 it was at hand.

18 The types of G&G activities that are
19 involved include geological and geophysical.
20 Coring is either grass sampling of materials
21 that are on the bottom, shallow sediments on
22 the bottom.

23 Shallow test drilling could be drilling
24 of a bore hole to examine the economic --
25 the engineering properties of shallow

1 sediments, generally less than 500 feet in
2 depth.

3 Deep stratigraphic tests are generally
4 deeper than 500 feet. All of these are
5 matters of either sampling the sea bottom or
6 drilling, rather shallowing into the
7 substream.

8 Geophysical is primarily involving 2-
9 and 3-dimensional seismic survey activity
10 involving the use of airguns.

11 Controlled source electromagnetic
12 surveys include techniques that examine the
13 fluid or gas contents sediments.

14 High-resolution geophysical surveys are
15 primarily geoengineering in nature. They are
16 used to examine bottom conditions for
17 structures that are found on the bottom. It
18 could be either an oil and gas structure or
19 it could be a renewable energy structure.

20 Some of these tools include multibeam
21 echosounders, primarily an asymmetry
22 determining tool; a sidescan sonar, which is
23 used to determine materials that are
24 featured on the bottom. It could be a
25 shipwreck. It could be live hard bottom

1 corals, that sort of thing.

2 And an electromechanical technique
3 that's called a boomer here -- and despite
4 some Canadian-sounding name, it's really an
5 electromechanical device -- imparts an
6 electrical signal, which influences
7 electrical plate. Electrical plate
8 vibrates, imparts signals into the water,
9 and that is the signal that is going into
10 the sediment to reflect off and create an
11 image at the bottom. It's not similar to an
12 airgun in its nature and its effect.

13 Also, we're concerned with gravity and
14 magnetic surveys, both that are conducted on
15 the sea usually at the same time the site is
16 surveyed. It's conducive that these tools
17 are pulled along behind the boat along with
18 the seismic array; also those that are
19 airborne by aircraft.

20 Impact-producing factors is sort of
21 NEPA jargon for these sorts of evaluations
22 that include some kind of a stressor on the
23 environment, some influence on the
24 environment that is causing an impact or
25 potentially causing impact. These tend to

1 fall into categories that are routine or
2 accidental.

3 By "routine," meaning by the nature of
4 the activity you can predict what a normal
5 set of circumstances would be like, what
6 kinds of impacts are being caused by just
7 the operation.

8 For these types of activities, we're
9 talking about active acoustic sound sources,
10 that means airguns. We're talking about
11 electromagnetic -- electromechanical sound
12 sources. They would involve the sites being
13 sonar, the multibeam echosounder and the
14 boomers, and sparklers, what I mentioned in
15 the previous five. Also, aircraft traffic
16 and the ways for servicing of offshore
17 boats.

18 When activities take place on the
19 water, typically there's a land-based
20 component for servicing those offshore
21 boats, especially the larger boats. There
22 could be helicopter trips out bringing men,
23 supplies, crews, crew changes, that sort of
24 thing. That includes both traffic and
25 noise.

1 Drilling and coring would include
2 operational wastes like the cuttings, from
3 the well bore. As you drill down, you pull
4 up cuttings, and those are discharged at the
5 sea bottom.

6 Sea floor disturbances would mean any
7 manner of disturbing the bottom of sampling,
8 drilling and coring, including the
9 discharges.

10 Placement of anchors, cables, and
11 sensors. Anything that's going to disturb
12 the sediment surface.

13 Also, there's an onshore of base
14 support services. This is in addition to
15 things that may be taking place by aircraft.
16 You have boats at a service base and they
17 have a berthing spot. They have a shore
18 base. They have suppliers that bring them
19 food or supplies that they need. They have
20 crews that live on the ship that live
21 onshore someplace. So there is an economic
22 component for offshore activity that's
23 staged onshore, as well.

24 Vessel traffic includes the very sense
25 of the ships on the ocean or boats on the

1 ocean. There is noise involved. There's
2 exclusion zones involved for safety.
3 There's also operational wastes that people
4 working on the ocean generate at sea. And
5 any kind of work in the ocean involves trash
6 and debris of some sort. These are all
7 impacting pretty big factors for G&G
8 activity on the ocean.

9 Accidental events. Since we're not
10 moving oil, we're not moving -- we're not
11 drilling for oil, we're just moving boats on
12 the surface, so they may involve a collision
13 or a fuel spill that results from an
14 accident.

15 Once you have a suite of impacting
16 factors caused by your activity, you have to
17 access what are the environmental resources
18 that are being affected; the biological,
19 physical and socioeconomic resources that
20 are at issue.

21 In the draft of the EIS, we've examined
22 benthic communities, fish and fisheries,
23 both commercial and recreational fisheries,
24 and the essential fish habitat that goes to
25 the health and vibrancy of both recreational

1 and commercial fisheries.

2 Also, marine mammals are at issue. The
3 ocean is full of marine mammals. There's
4 sea turtles. Also coastal and marine birds,
5 and those included protected species in all
6 of those categories that I just mentioned.

7 Socioeconomic issues include
8 archaeological resources. The eastern
9 seaboard is the location for many shipwrecks
10 that have happened over many hundreds of
11 years.

12 Marine-protected areas include two that
13 are national grand sanctuaries in the South
14 Atlantic planning area. You have Gray's
15 Reef, and in the Mid-Atlantic planning area
16 you have National Marine Sanctuary.

17 Recreational resources are human
18 activities generally out to shoreline or in
19 the water. It could be closer to shore or
20 it could be even further offshore.

21 Human resources involve those economic
22 factors of people living on land that work
23 on the sea.

24 And other marine uses include a
25 category that would involve large tracts of

1 the Atlantic seaboard that are reserved for
2 military use. There are large-range
3 complexes in the Atlantic, in both the South
4 Atlantic and the Mid-Atlantic, that involve
5 Department of Defense use, either in-service
6 activities or under-the-water-types of
7 activities. There are also aircraft
8 activities that involve things dropping in
9 the water.

10 There are also two range complexes on
11 the eastern coast. The Cape Canaveral
12 NASA complex there is involved in civilian
13 spaceflight and private development. And in
14 the northern part of the Mid-Atlantic
15 planning area is Wallops Island Flight
16 Facility. Both of these are in the area of
17 interest and both of them involve flights of
18 commercial and spacecraft that are launched
19 out over the ocean.

20 The heart and soul of the Environmental
21 Impact Statement are the alternatives that
22 are constructed and structured for the
23 evaluation. The proposed action tends to be
24 the first alternative, and the hard look
25 that BOEM requires for a proposed means that

1 the agency that is acting -- in this case, the
2 Bureau of Ocean Energy Management -- has to
3 examine the alternatives to the purpose and
4 the need for the activity on the ocean or
5 the activity whatever is proposed.

6 We have three of them in this
7 Programmatic EIS. They are based primarily
8 on time-area restrictions of the ocean
9 surface that are now recognized and current
10 regulations. NOAA fisheries -- NOAA,
11 National Atmospheric and Oceanographic
12 Administration. They have regulations that
13 involve vessel speed controls for the
14 northern right whales and seasonal management
15 areas that they've designated along the east
16 coast. So these areas are being used for
17 restricting the activities and types of
18 activities in our program, the use of
19 airguns. I will show you a couple maps that
20 show where those time-area closures are for
21 the vessel speed control that also
22 correspond to alternatives for both A & B.

23 The philosophy for Alternative B is to
24 incorporate everything that we're
25 considering for Alternative A, but to

1 enhance it and have additional time-area
2 closures act as protective measures for the
3 species that are out there, marine mammals.
4 The northern right whale is just one
5 protected species out there among several.

6 So all of the mitigations that are
7 involved, the protective measures in
8 Alternative A, are incorporated in B. In
9 addition, we have expanded time-area
10 closures for the northern right whales in
11 these seasonal management areas that I will
12 show you on a map coming up.

13 Also, we've identified a closure area
14 for nesting sea turtles off of Brevard
15 County in central Florida, the site for many
16 thousands of nests for loggerhead sea
17 turtles that we've identified for a
18 time-area closure based on the animals use
19 of that area.

20 Also, as part of Alternative B, we're
21 proposing a separation between
22 simultaneously-seismic surveying that may be
23 taking place, particularly the
24 deep-penetrating seismic surveys, the ones
25 that are done for oil and gas exploration.

1 And also for Alternative B, a technique
2 to be required that's called passive
3 acoustic monitoring. This is a technique
4 where a sensitive hydrofoam is deployed into
5 the ocean column, the water column, and a
6 technician is trained for its use and uses
7 it to try to determine some of the
8 characteristic noises of marine mammals,
9 some of their singing, or calls, their
10 creaking, their various noises that they can
11 make in an effort to determine whether
12 they're there. You can see mammals at the
13 surface, if they're at the surface. This
14 technique is one that can try to infer their
15 presence by active noises that they're
16 making that we detect on either one. That's
17 what passive acoustic monitoring is all
18 about. It's also called PAM as an acronym.

19 Alternative C, BOEM evaluation of this
20 sort involves no-action alternative. For
21 our evaluation, we're considering no action
22 for oil and gas activity, but a status quo
23 for renewable energy and marine minerals
24 activities. The reason for the partitioning
25 is that there are no active leases on the

1 Atlantic Coast. There is no authorized
2 exploration activities on the Atlantic Coast
3 at this point. So no-action alternative
4 would simply say these activities won't
5 begin.

6 The status quo aspect of Alternative C
7 means that renewable energy and marine
8 mineral activity both are currently
9 authorized on the Atlantic Coast and both
10 can continue on a case-by-case basis. So
11 that's the structure for Alternative C of
12 the EIS.

13 The time-area closures that I had
14 mentioned to you, this hatched area off of
15 Jacksonville and South Georgia, is a
16 critical habitat for the northern right
17 whale. It extends down the Florida
18 coastline and stopping here at the southern
19 end of the South Atlantic planning area.

20 The orangish block here encompassing
21 most of the critical habitat is the
22 southeast management -- seasonal management
23 area. These are a region that has been
24 identified by NOAA fisheries for vessel
25 speed restrictions. When the animals are in

1 this area, vessels have to slow down to less
2 than a hazard for striking from the vessels
3 themselves. What we're proposing in our
4 time-area closures is to look at taking
5 these vessel speed control areas and also
6 taking off the table a stressor that we
7 would also be introducing by the use of
8 airguns in that area. So that's the nature
9 of why we are saying time-area closure.

10 These whales tend to live up along the
11 New England coast during the summertime.
12 They migrate down the coast to calf and
13 spawn in -- to calf in this area right off
14 of Jacksonville. This is a very highly
15 concentrated area for the northern right.

16 One of the seasonal management areas
17 identified by NOAA is the Mid-Atlantic.
18 This is the yellow in here. It extends up
19 from Brunswick, Georgia, all the way up along
20 the seaboard in Wilmington. And also you
21 see these small cusped areas that are
22 offshore, major bays and estuaries on the
23 east coast. That's because there's a
24 concentrated area for a lot of vessel
25 traffic, and during November 1st through

1 April 30th is a high probability that you
2 have whales migrating through that area
3 transitioning from where they are during the
4 summer to where they go during the winter.
5 Those are the time-area closures that are
6 part of Alternative A.

7 Now, I mentioned that Alternative B
8 consists of enhancement of mitigation by
9 trying to further restrict activity by
10 expanding these areas for our purposes for
11 the kinds of activities we're talking about
12 in the programmatic EIS.

13 So for the time-area closures for B,
14 this is a map that contains the same
15 features I just showed you, the critical
16 habitat and hatcher. The orange, Southeast
17 seasonal management area here (indicating),
18 the Mid-Atlantic seasonal management area
19 here, these cusped areas.

20 What Alternative B does is simply take
21 the area from the northern part of the
22 Mid-Atlantic planning area and creates a
23 belt, a continuous belt that has no breaks
24 in it between that boundary all the way down
25 the coast, all the way down to the southern

1 boundary of the South Atlantic planning
2 area.

3 This purplish zone here (indicating) is
4 an extension of the Southeast seasonal
5 management area. These belts extend out to
6 about 20 miles, 20 nautical miles. There
7 are whales through this whole area of the
8 ocean, but the surveys and whale-sighting
9 trips that have been done report that most
10 of the migration takes place closer to the
11 shoreline, so that's why we're proposing
12 these seasonal -- these time-area closures
13 for airgun activity during these periods.

14 Also, on the next slide, I'll show you
15 that there is a time-area closure for the
16 sea turtles off of Brevard County.

17 This belt here is a highly-concentrated
18 area for loggerhead sea turtles and
19 leatherbacks. This closure area is for
20 airguns. Again, out to about 11 nautical
21 miles, because this is a high-traffic area,
22 high-use area for these species that come
23 ashore and lay their eggs, and they hatch
24 and move offshore, so we're proposing this
25 is a time-area closure.

1 Now, what you will see if you have an
2 opportunity -- when you have an opportunity
3 to look at the Environmental Impact
4 Statement, we've arranged our evaluation to
5 summarize and table, a table like this.
6 It's Table 2-2 in the EIS. If you wanted to
7 see one summary, one roll-up of all the work
8 we've done to try to assess impacts on the
9 affected resources in this area, you'll see
10 a table like this, of course, much larger,
11 that catalogs all of the biological and
12 physical, socioeconomic resources, all of
13 the impact-producing factors that affect
14 that resource, all of the alternatives A, B,
15 and C, and then in a matrix arrangement, you
16 see a qualitative assignment for impact.
17 These are defined in the Environmental
18 Impact Statement in Section 4. They're
19 consisting of what we call the impact,
20 significance criteria, and they range from a
21 negligible through minor through moderate
22 and convenient. None of the impacts that
23 we've assessed in our draft document have a
24 major impact to any resource at all.

25 Now that we have a draft environment

1 impact statement available for public
2 comment, we also begin our engagement with
3 other agencies having roles in environmental
4 law that take place while our BOEM
5 evaluation is ongoing. Those include
6 Section 7 consultations with the Endangered
7 Species Act and consultations with NOAA
8 Fisheries and the Marine Mammal Protection
9 Act. All of these consultations take place
10 during our BOEM evaluation and, hopefully,
11 they're finished by the time our evaluation
12 is done and the Environmental Impact
13 Statement is complete.

14 Now that we have a draft on the street,
15 we've begun informal consultations with all
16 the agencies involved. We prepared or are
17 preparing the formal documentation to begin
18 the consultations. So our formal
19 consultations will be beginning shortly with
20 all of the agencies that are considered.

21 Insofar as next steps, right here we're
22 in the middle or the beginning of public
23 comment period. It will be taking place in
24 April and May. Following comments we'll be
25 getting from folks like you, from other

1 federal agencies, state agencies or anyone
2 having an interest in our proposed action,
3 we'll revise the draft to a final. And
4 following that -- and that would be in the
5 summer and beginning of the third quarter.
6 And the third quarter, fourth quarter of
7 this year, we'll begin to finalize the
8 document and begin the recommendations for
9 the kinds of decisions the department can
10 make.

11 As I mentioned earlier, previously, all
12 during this time will be environmental
13 consultations taking place. These are all
14 intended to be required by law. And towards
15 the end of the calendar year, December, we
16 hope to have a record decision for this
17 proposed action based on the evaluation that
18 we've done.

19 I mentioned that the comment period
20 closes on May 30th. That will be 60 days
21 from when we published the notice of
22 availability for the draft. We can collect
23 comments both orally, oral testimony, or
24 written comments that are dropped off or
25 given to us at these meetings. You may

1 e-mail comments to us at a dedicated e-mail
2 address GGEIS@boem.gov.

3 The drafted environmental statement is
4 posted to our regional website here and most
5 of the public information is at the table
6 outside, has all of this information on it,
7 or it's posted where you can get to it.

8 And also, if you choose to use snail
9 mail, you can mail to the address at the
10 bottom there.

11 In closing, I would like to say that
12 we've spent more than a year putting
13 together this draft of EIS. It involves
14 state of the practice modeling for noise in
15 the ocean. What we're looking for is people
16 to offer comments from folks that have had a
17 chance to digest what we put together, to
18 understand the mitigating or mitigation that
19 are involved, and why we are offering the
20 mitigations that we are, and to offer back
21 comments to us that will help us make a
22 revision to a final document.

23 With that, I will introduce Mr. William
24 Sloger from CSA International, Inc., and he
25 will give a brief presentation to discuss

1 how impacts were assessed on marine mammals
2 for our EIS project.

3 MR. SLOGER: Thanks, Tom.

4 MR. GOEKE: While they're setting up
5 the next presentation, let me try and give
6 you a little bit of the thought process as
7 we go through when we do our environmental
8 documents.

9 One of the things that we have to do as
10 we build our environmental documents is to
11 create an administrative record. An
12 administrative record is the history of
13 everything that you go through while you're
14 building the document, all the analyses, all
15 the compilations, and part of the
16 administrative record are the scoping,
17 meetings in these public hearings.

18 To keep our public hearing and our
19 administrative record clean, what we would
20 like you do as we get to the public comment
21 period of our document, we would like to
22 keep the comments focused on the proposed
23 action that Tom has just discussed.

24 We have folks here, if you have
25 questions about how our agency works, how we

1 do things in general, we would be glad to
2 talk to you offline on those topics. But
3 for the public comment period, let's try to
4 keep focused on the topic that we have
5 tonight.

6 Thanks.

7 MR. SLOGER: As Tom just mentioned, I
8 will give you a brief description of the
9 assessment of potential impacts to marine
10 mammals, 1 of the 15 resource areas that
11 were listed in the previous slide and
12 analyzed in the EIS.

13 The assessment process is a multistep
14 process. The first step is to identify
15 resources within the area of interest. The
16 next step in the process is to define the
17 significance of impact on those resources.

18 Then following that, factors that could
19 impact -- produce impacts must be
20 identified. With that in mind, data is then
21 collected about the proposed action,
22 resources potentially impacted, and the
23 measures that could mitigate those impacts.

24 The final step, of course, is to
25 analyze those impacts by developing

1 estimates of incidental take, if any, and
2 determining the level of impact.

3 The area of interest that you see on
4 the map has potentially 38 species and
5 marine mammals known to occur within it.
6 Several of those, the manatee and the
7 pinniped, would be unlikely to be affected
8 by this proposed action due to their limited
9 occurrence in the area.

10 Tom mentioned earlier the Endangered
11 Species Act in Section 7 of the
12 consultation. Under that Act, BOEM has
13 prepared a Biological Assessment to satisfy
14 the consultation process that will be
15 submitted to the National Marine Fisheries
16 Service.

17 There are seven listed species under
18 the Endangered Species Act within the area
19 of interest. I guess within this area, the
20 most -- Level 1 would be the North Atlantic
21 right whale. The analysis of impacts was
22 designed to address harassment to marine
23 mammals, both Level A and Level B, as
24 defined by the Marine Mammal Protection Act.

25 To assess those impacts -- to assess the

1 impact level, categories of significance had
2 to be defined. Significant criteria
3 reflect consideration for both context and
4 intensity of the impact based on four
5 parameters.

6 The first is detectability. That is,
7 is an impact measurable or detectable?
8 Duration, is it short or long term? Spatial
9 extent, is it localized or extensive in
10 severity?

11 For the purposes of this analysis,
12 negative impacts have been classified into
13 one of these four categories: Negligible,
14 minor, moderate, and major.

15 All impact-producing factors evaluated
16 in the PIS were identified earlier. These
17 five were determined to potentially affect
18 marine mammals. All but the first one,
19 active acoustic sound sources, have been
20 determined to have either a negligible or
21 minor impact to marine mammals.

22 There are three basic steps to the
23 impact assessment process. The first is a
24 description of the proposed action and all
25 the details that go into that. The second

1 is to establish mitigation measures. And
2 finally, using those -- the information from
3 those two, a determination of potential
4 impacts can be made.

5 For this analysis, there are two
6 categories of active acoustic sound sources
7 that have been analyzed. Categories are
8 size of airguns and electro-mechanical
9 source. Six sources were defined: Two size
10 of airguns arrays and four
11 electro-mechanical sources. And those six
12 sources cover all of the potential surveys
13 that might occur.

14 The basic unit of measure to define a
15 level of survey over time that was analyzed
16 in the PEIS is line kilometers. As you can
17 see from the total number of line kilometers
18 for the nine-year period analyzed, the
19 majority of post-survey activity would be to
20 devise exploration surveys. Most of the
21 surveys listed here are deep penetration,
22 seismic, involving the use of airguns.

23 This slide is a visual representation
24 of the information on the previous slide
25 showing two desistance -- potential two

1 desistance survey activity. The darkest
2 areas indicate the areas where the greatest
3 amount of survey activity might occur.

4 The analysis of the PDIS looked at
5 marine mammal hearing and sensitivity,
6 taking into account the frequency range of
7 species, the acoustic thresholds in which
8 they're able to hear. And it also looked at
9 the two different -- well, the primary
10 established acoustic impact threshold used
11 by the National Marine Fishery Service, as
12 well as the approach proposed by Southall,
13 et al.

14 To better understand potential acoustic
15 impact -- acoustic-related impacts, a
16 modeling study was conducted to estimate
17 propagation of underwater sound.

18 As I already mentioned, six sound
19 sources were chosen to represent all G&G
20 surveys. The sound sources were modeled at
21 22 modeling sites located throughout the
22 area of interest to address different
23 physical conditions such as water depth, sea
24 floor composition, seasonal 35 propagations
25 scenarios, which were then combined with the

1 acoustic sources, which led to 105 different
2 acoustic propagation estimates.

3 This is one of the intermediate
4 products of modeling effort. These are
5 sound pressure level diagrams for the two
6 different acoustic arrays, both on the
7 Continental Slope and Continental Shelf.

8 The Acoustic Integration Model, AIM,
9 was used to predict the average number of
10 marine mammals that could be exposed to
11 sound levels above a given threshold in
12 order to estimate takes. To accomplish
13 this, a virtual environment was created with
14 intermittent sound sources and animals were
15 placed. Specific circumstances modeled
16 included the sound source properties and
17 movements derived from the acoustic
18 propagation monitoring results.

19 Species distribution and dive and swim
20 patterns and environmental conditions
21 affecting transmission. Expected effects
22 from proposed mitigation measures were also
23 fit into the software program.

24 BOEM has conducted modeling for
25 incidental takes. Not for incidental take

1 authorization, but rather for impact
2 analysis and to help in developing
3 mitigation.

4 The analysis of impact for marine
5 mammal species was very conservative. While
6 it takes into account certain mitigation
7 measures, take estimates did not include the
8 effects of operational mitigation measures,
9 such as pre-activity surveys of safety zones
10 by a protected species observers, ramp-up
11 procedures, or shutdown measures for animals
12 that enter the safety zone during the
13 surveys. It also did not factor in the
14 hearing range for species. That is, some
15 species may not be able to hear within the
16 range of frequencies of sound produced by
17 the airguns.

18 This slide summarizes the mitigation
19 measures for reducing potential impacts to
20 marine mammals for the three alternatives.
21 As Tom mentioned earlier, active acoustic
22 monitoring is optional for the proposed
23 action, Alternative A required for
24 Alternative B.

25 Another key difference in mitigation is

1 with regard to the separation distance of 40
2 kilometers separation distance would be
3 required between surveys. For Alternative
4 B, that is not required under Alternative A.
5 This is the slide you've seen before.
6 Obviously, this is Alternative A in the
7 areas that would be closed due largely to
8 the presence of the right whale. And as you
9 can see from Alternative B, those areas
10 expanded both to the north and south.

11 This table lists the impact levels from
12 all of the impact-producing factors
13 applicable to marine mammals. As you can
14 see, all impact-producing factors are either
15 negligible or minor with the exception of
16 the active sound sources.

17 And that brings us back to this slide,
18 which is the reason we're all here, and that
19 is to receive your comments. I will go
20 ahead and turn it over to Gary now.

21 MR. GOEKE: Okay. Thanks, Will.

22 Again, like I said, what we're going to
23 do, we're going to have -- according to the
24 order that everyone signed up, we're going
25 to have folks give us their thoughts on the

1 Environmental Impact Statement that we
2 created this evening. I would ask you to
3 keep your comments to three minutes. At the
4 end of the session, once everybody has given
5 their thoughts and their comments, we will
6 wrap around again. If anybody else wants to
7 add on to their original three minutes or
8 something like that, we'll have time to do
9 that.

10 The first speaker, Nathaniel Bell.

11 MR. BELL: Good evening. My name is
12 Nathaniel Bell. And I would briefly speak
13 on those who cannot be here tonight, and, of
14 course, I'm referring to recitations, or
15 whales.

16 I'll first take us on a brief history
17 tour. 19th century, of course, the
18 Industrial Revolution was born and won and
19 people needed certain materials in order to
20 perform industrial processes, such as
21 lubricants, waxes and chemicals. And they
22 found the varying feedstock for all of these
23 materials, and that feedstock, of course,
24 was whale oil, and we all know what happened
25 then. The whales were pursued to literally

1 the ends of the earth and were nearly driven
2 extinct. The only thing that saved the
3 whales from certain extinction was the fact
4 that we found something even better than
5 whale oil to use, and that substance, of
6 course, is petroleum. Petroleum, more than
7 any other factor, preserved whales as an
8 order of animals.

9 And so, therefore, it is my opinion
10 that given the fact that they dodged a
11 massive bullet with -- by the fact that
12 they're still not here and have not been
13 driven utterly to extinction, I think the
14 prospect of potentially annoying them with a
15 little noise, in the face of the
16 alternative, is pretty minor.

17 Therefore, it would be my opinion that
18 seismic surveying, you know, may somewhat
19 annoy marine mammals, is a very minor problem
20 for them to face. And I would endorse
21 Section A.

22 Thank you.

23 MR. BJERSTEDT: Dennis Fleming.

24 MR. FLEMING: I support your
25 Alternative A.

1 Question: When would it be effective?
2 When would people start to do the survey?
3 If it also appeared that leasing is not
4 involved in that, another multi-year study
5 would be required before leasing would be
6 allowed? How does that tie into it?

7 And from a political standpoint, what
8 action by the executive branch or the
9 legislative branch have to take place before
10 this can be enacted? Or does the bureau
11 have the right or the ability to move it
12 forward at the end of the public comment
13 period?

14 MR. GOEKE: The questions I will be
15 glad to answer after the session is over
16 with, because they don't really pertain --
17 the ones to oil and gas -- don't really
18 pertain to our proposal.

19 MR. FLEMING: That's fine. I understand.
20 Thanks.

21 MR. BJERSTEDT: Kyle Bedran.

22 MR. BEDRAN: Thank you. I just want to
23 say I think this is a great plan. I think
24 you gentlemen have put together a lot of
25 research into this and a lot of time and

1 effort and thank you for that.

2 I employ you to anything to not choose
3 Alternative C and go forward with at least
4 either A or B.

5 I think we've listed -- you've listed
6 off many of the regulations and acts that
7 are already in place to protect the wildlife
8 and marine biological life, as well. I
9 think there's already set regulations that
10 will protect them fair enough as far as
11 either A or B goes.

12 But the vast amount of jobs that can be
13 created from this, not to mention the
14 scientific research that can be gathered
15 over the past two to three decades, the
16 advances we've seen from research, much like
17 this, have propelled us into greater means.
18 So I think this would mean a drastic piece
19 of evidence for us to continue on that path.
20 And I think Alternative A or Alternative B
21 would be the wise choice. I stand here
22 today against Alternative C.

23 Thank you.

24 MR. GOEKE: Thank you.

25 MR. BJERSTEDT: Al Miller.

1 MR. MILLER: Hi. Again, my name is Al
2 Miller. First of all, I want to welcome you
3 to Jacksonville. I hope your stay here has
4 been memorable.

5 MR. GOEKE: Thank you.

6 MR. MILLER: I'm a scuba diver. I'm an
7 offshore fisherman. I love that ocean as
8 much as anyone. I have been down in the
9 bottom of that ocean probably 70 times. I
10 can tell you that mammals have lived down
11 there and they are hardy. This would be
12 nothing more than -- what you are proposing
13 for Option A -- nothing more than a minor
14 inconvenience for permanent improvement for
15 our country. I urge you to find out what is
16 out there. We need to know what is out
17 there for the future of this country. If we
18 have no country, this is all our goal is. I
19 urge you for Option A. Please, Option A.

20 Thank you.

21 MR. BJERSTEDT: LeAnne Kolb.

22 MS. KOLB: I'm a little discouraged
23 just because all of the empty chairs and, of
24 course, it represents all the people who
25 will complain no matter what way this plays

1 out.

2 My name is LeAnne Kolb, and I
3 appreciate all of the time that you guys
4 have invested in all of the research. Over
5 a year, my goodness, of one topic. That had
6 to be pretty intense.

7 I'm definitely for Option A of your
8 plan. I believe that it is very important
9 that we become energy-independent as a
10 nation. Last year we sent out \$460 billion
11 to other countries for our oil, and
12 I think that is just astronomical that money
13 could be coming back into our own country.
14 I'm so pleased to proceed with Option A.

15 Thank you.

16 MR. GOEKE: Thank you.

17 MR. BJERSTEDT: Craig Sharp.

18 MR. SHARP: My name is Craig Sharp. I
19 want to thank you guys for coming out and
20 starting in Jacksonville. I think it's
21 great where you start, and we have a lot of
22 environmental-friendly folks around here.

23 I, like the earlier speaker, am against
24 Option C. Pick one, A or B. I think it's
25 been so long since we had any studies. We

1 really need to figure out what is out there.

2 A or B great, just not Option C.

3 Thanks.

4 MR. BJERSTEDT: Jim Fitzpatrick.

5 MR. FITZPATRICK: Again, gentlemen,
6 thank you for your time, your effort and
7 your knowledge and your skill for being able
8 to detect what is potentially down there.

9 Option A or B. It's not up to me.
10 It's up to the more intelligent people than
11 myself. But for the security of our nation,
12 I see no problem of finding out what is
13 available to the American people, as long as
14 it stays for the American people. Too many
15 people have died to create this country, and
16 we should not lose it.

17 Thank you for your time.

18 MR. BJERSTEDT: Chelsi Henry.

19 MS. HENRY: Good evening. And I would
20 like to echo some of the same words. Thank
21 you both for being here and presenting this
22 information and all your hard work.

23 I briefly just want to say that I
24 believe it is our responsibility as citizens
25 to go and find out how much oil and natural

1 gas is actually there in the shell. Because
2 I think it's going to be beneficial for us
3 as a country. It's going to strengthen our
4 energy policy. It's going to continue to
5 keep costs down and control those costs.
6 Possibilities of jobs, building --
7 increasing our revenue, as well. And I
8 think those are all important from the
9 charts that you presented. It's shown that
10 from your research there's going to be minor
11 effects, if any, to the mammals, which I
12 think that's a huge consideration with
13 whatever we're doing.

14 And so those are my thoughts. And,
15 again, I think that is something we should
16 find out the exact amounts. There have been
17 billions of barrels that they have already
18 recovered. And I think there can be even
19 more, if we know the exact amounts that is
20 there. And it's the best choice for our
21 nation and our future. Thank
22 you.

23 MR. BJERSTEDT: That concludes the list
24 of folks who have signed up to speak. Is
25 there anyone else who would like to speak?

1 Ma'am, if you could come up and say your
2 name and spell it for the court reporter.

3 MS. ALEXANDER: Joanne Alexander
4 (phonetic). I just -- didn't quite
5 understand what comments were going to be.
6 But I vote for A or B. I think you've shown
7 there's minimal effect to our mammals, which
8 is wonderful, and we do need to protect
9 them. But there's no reason to do C.

10 MR. BJERSTEDT: Can you state your name
11 and spelling for the court reporter?

12 MS. MEDROS: My name is Diana Medros.
13 First name D-I-A-N-A, last name
14 M-E-D-R-O-S.

15 I voice my concerns as an individual
16 environmental scientist and a member of the
17 North Florida Legal Community. I'm all for
18 drilling of our oil reserves in the United
19 States in our waters. However, I think it
20 should be done responsibly. And I think in
21 order to achieve that, Alternative B would
22 be the best alternative.

23 Although there are regulations in place
24 and the Endangered Species Act to protect
25 potentially the right whale, it covers

1 taking, which is harassing, hunting,
2 capturing, or killing. However, Alternative
3 B takes it a step further to protect the
4 right whale by having those timeout periods
5 in regard to the right whales breeding
6 habits.

7 And I think even if testing or drilling
8 were to be done, I guess out further than,
9 not closer to shoreline where the whales do
10 breed, it would still disrupt their breeding
11 habits. If that is disrupted, the whole
12 population can potentially be at stake.

13 So I think Alternative B, with those
14 minimal additional requirements to be
15 included in the Environmental Impact
16 Statement by these governmental and private
17 entities, would be the most beneficial.

18 Thank you.

19 MR. GOEKE: Thank you.

20 MR. BJERSTEDT: Anyone else wishing to
21 speak? Yes, ma'am. If you would come up
22 and give your name and spelling for the
23 court reporter.

24 MS. GRANT: Shannon Grant,
25 S-H-A-N-N-O-N G-R-A-N-T. I'm for either A

1 or B. We need to find out what is out
2 there. If we don't find out, we'll never
3 progress as a country.

4 MR. GOEKE: Thank you.

5 MR. BJERSTEDT: Yes, ma'am.

6 MS. THOMPSON: I'm Anita Thompson. And
7 I know you said that you won't answer
8 questions. I would like to know if anyone
9 is drilling in that area. Any other
10 country?

11 MR. GOEKE: No, ma'am.

12 MS. THOMPSON: They are not yet?

13 MR. GOEKE: There's no drilling in the
14 Atlantic.

15 MS. THOMPSON: Is there any way to
16 prevent another country from drilling in
17 that area?

18 MR. GOEKE: Yes, ma'am. It's U.S.
19 Federal Waters.

20 MS. THOMPSON: Because I know they are
21 drilling in the Gulf, which is right there
22 on our gulfstream. And the most
23 important -- which if they have an oil
24 spill -- if Cuba has an oil spill in the
25 gulfstream, it's going to impact all of

1 this area.

2 So the most important thing
3 economically and for the safety of this
4 country and for the freedom, continued
5 freedom of this country, we have to be
6 independent in the energy. We cannot
7 continue to rely on other countries for our
8 energy.

9 So I think it is -- the most important
10 thing we can do now is become energy
11 independent, and in any of these --
12 whichever one is going to make us the most
13 energy independent -- and I'm sorry about
14 the animals, but we need to be energy
15 independent or we're going to be dependent.

16 MR. BJERSTEDT: Thank you. Last call.

17 The comment period is open until the
18 end of May. I mentioned to you we've just
19 received your comments and testimony and
20 perhaps some folks have turned some written
21 documentation in. We have an e-mail address
22 for comments. We have a web posting for the
23 document itself. And if you'd like to send
24 it through the U.S. Postal Service, there's
25 the address there and it's in most of our

1 public announcements.

2 One last speaker. Sir? Could you say
3 your name and spell it for the court
4 reporter?

5 MR. DEVIDAL: Steve, S-T-E-V-E,
6 D-E-V-I-D-A-L.

7 And I would like to -- I guess you
8 would say, give a second to the previous
9 commenter. Agenda 1, Agenda No. 1, is energy
10 independence. And I see that Alternative 1
11 has provisions to accommodate those who have
12 concerns about animal rights and
13 environmentalism, and I think when you adopt
14 this, you make both groups consolidated.
15 And once again, the No. 1 agenda is
16 America's energy and dependence. Anything
17 that will help, which is either of those,
18 but especially Option A, should be adopted.

19 MR. GOEKE: Thank you.

20 MR. BJERSTEDT: That would conclude our
21 meeting for this evening.

22 (Thereupon, the meeting concluded at
23 8:02 p.m.)

24 - - -

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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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