

Subject: From Meeting

From: "Barbara.Hess" <Barbara.Hess@noaa.gov>

Date: Wed, 02 Apr 2008 16:07:57 -0400

To: Kathy Watson <Kathy.Watson@noaa.gov>, Terence Lynch <Terence.Lynch@noaa.gov>, Danielle Stuby <Danielle.Stuby@noaa.gov>, Virginia Dentler <Virginia.Dentler@noaa.gov>, Ashley Chappell <Ashley.Chappell@noaa.gov>

Thanks, everyone, for taking time for that HSRP meeting just now.

Public Access FACA database:

<https://www.fido.gov/facadatabase/logon.asp>

NOAA HSRP website: <http://nauticalcharts.noaa.gov/ocs/hsrp/hsrp.htm>

Ashley/Kathy: Here are the general public folks:

Joseph Scolari, USACE

John Perez, Port of Miami

Bahar Barami, Volpe

Brian Walker, Nova Southeastern University

Don Ventura, Fugro-Pelagos, Inc

David Larimer, NCL

Donald A. Roman, University of Southern Miss

(the rest of the folks who signed in were speakers and I have their email addresses; I'll send them a quick email.) Attached is the Federal Register Notice that gives details about the meeting.

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1 HYDROGRAPHIC SERVICES REVIEW PANEL

2 HELD: Doubletree Grand Hotel, Biscayne Bay, Miami

3 DATE: Friday, March 7, 2008

4 AGENDA: Public meeting

5 TIME: 8:00 a.m. to 4:00 p.m.

VOLUME II of II

6 Pages 152 - 330

7 CHAIRMAN: Tom Skinner, Durand & Anastas  
8 Environmental Strategies, Inc.

9 VICE CHAIR: Edmund B. Welch, Maritime & Ocean Policy

10 PANEL MEMBERS PRESENT:

11 Captain Thomas Jacobsen, Jacobsen Pilot Services, Inc.

12 Michael W. Szabados, Director, CO-OPS

13 Captain Sherri Hickman, Houston Pilots Association

14 Captain Minas Myrtidas, Norwegian Cruise Line

15 Matthew J. Wellslager, South Carolina Geodetic Survey

16 Elaine L. Dickinson, Boat Owners Association of the U.S.

17 Captain Steven R. Barnum, Director, OCS  
18 Jack Dunnigan, Assistant Administrator, NOS  
19 Jon L. Dasler, David Evans & Associates, Inc.  
20 Dr. Gary A. Jeffress, Texas A & M University  
21 Andy Armstrong, Co-Director JHC  
22 Rear Admiral Richard D. West, USN (Ret.); CORE  
23 Adam McBride, Lakes Charles Harbor & Terminal District  
24 Larry Whiting, Terra Surveys, LLC  
25 David B. Zilkoski, Director, NGS

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1 (Continued from Volume I.)

2 CHAIRMAN SKINNER: We will have two more  
3 public comment periods this afternoon if any of you  
4 change your minds or if we have new members from  
5 the public wishing to make a comment.

6 I should also mention that we have two panel  
7 members who have been delayed getting here.  
8 Captain McBride, I believe, is due this afternoon;  
9 and John Dasler was held up due to weather. He  
10 tried to make it here last night.

11 Next up is -- Panel, what we've tried to do  
12 today is in the past we've heard a fair amount  
13 about navigational services and that certainly  
14 remains a focus of the panel.

15 We tried to mix it up a little bit with  
16 today's panel, and we have five -- I think five  
17 people who will be making brief presentations and  
18 are available for questions and answers. And if we  
19 could have them -- I believe you're supposed to

20 present from up here. It's very hard having  
21 Barbara around the corner here.

22 MS. DENTLER: Yes, please come up here.

23 CHAIRMAN SKINNER: She's the stand-in  
24 teleprompter, and I have no idea where you are.

25 We have on the panel Bruce Carlisle from the

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1 Massachusetts Office of Coastal Zone Management.

2 Chantal Collier from the Florida State  
3 Department coral reef Conservation Program.

4 Becky Hope from -- the Operations Director  
5 with the Port of Miami.

6 Chuck Husick, who's a journalist and active in  
7 recreational marine areas, and is also the Ask  
8 Chuck for Boat dot U.S. -- or boat U.S., sorry,  
9 swift kick under the table here from Elaine.

10 And we also have Jeffrey Andrews, who is --  
11 I've lost my cheat sheet -- so I -- you're -- can  
12 you explain?

13 JEFFREY ANDREWS: I'm with Coastal Planning  
14 and Engineering. We do hydrographic surveys. I  
15 was asked to come here by Tom Waters from the  
16 Department of Beaches and Shores and to go over  
17 some of the state.

18 MS. DENTLER: Can you please speak into the  
19 microphone so the court reporter can hear?

20 JEFFREY ANDREWS: I was asked by Tom Waters to  
21 come speak to some of the stuff that the state is  
22 doing with NOAA.

23 CHAIRMAN SKINNER: Great. Sorry to not have  
24 that in front of me. I think we'll just go in  
25 order of how I have you listed on the agenda, so,

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1 Bruce, if you could start off, that would be great.

2 BRUCE CARLISLE: Good morning. As Tom said,  
3 my name is Bruce Carlisle. I serve as Assistant  
4 Director for the Massachusetts Office of Coastal  
5 Zone Management. I assumed the Cabinet of  
6 Executive Officer of Environmental Affairs,  
7 Commonwealth of Massachusetts.

8 I would like to thank Jack Dunnigan and  
9 Captain Steve Barnum and Chair Thomas Skinner and  
10 the entire Panel for inviting me here today and  
11 having the opportunity to share some of the  
12 thoughts.

13 I do understand that the primary focus of the  
14 Panel is on navigation and aspects related to.  
15 There's a couple other aspects I'm going to touch  
16 on. In particular, recommendation number two which  
17 is the coordination and integration of hydrographic  
18 services among federal agencies, especially as it  
19 relates to sea floor and shoreline mapping.

20 I will also touch very briefly on  
21 recommendation number five, the importance of  
22 NOAA's hydrographic services to non-navigation user  
23 groups. I have some prepared remarks, hopefully, I  
24 will try and keep them brief.

25 In Massachusetts, the seafloor and shoreline

1 mapping are increasingly important to Massachusetts  
2 coastal and ocean management efforts.  
3 High-resolution data on bathymetry and topographic  
4 elevation, seafloor and shoreline morphology,  
5 substrate types and sediment thickness are all  
6 critical pieces of information that will  
7 dramatically improve management efforts.

8 The goal of Massachusetts' seafloor mapping  
9 program is to generate high resolution data  
10 required to map the distribution of marine habitats  
11 in the coastal and ocean environment of the  
12 commonwealth.

13 The seafloor Mapping Cooperative in the  
14 Commonwealth was initiated in 2003 with CZM and the  
15 U.S. Geological Survey working as co-leads to  
16 produce high-resolution maps and geospatial data of  
17 seafloor topography, or bathymetry, and surficial  
18 geology. Other state and federal partners include  
19 NOAA and our state Division of Marine Fisheries.

20 To date, the state has invested more than  
21 three million dollars in this effort and this  
22 state-level investment has been matched  
23 dollar-for-dollar by federal funds.

24 As you can see from the handout that I  
25 circulated. Did you you get the hand out? Okay.

1 Good. We've made significant progress with a large  
2 chunk of our state waters have been completed.  
3 There's a URL, it's kind of hard to read, but to  
4 the left of the USGS logo where you can obtain the  
5 open file reports for those areas.

6 And although we do not have an established  
7 shoreline mapping program, the Commonwealth worked  
8 with NOAA and USGS in 1994 and 2001 to conduct  
9 comprehensive shoreline change surveys. We  
10 currently have a very strong interest in obtaining  
11 high-resolution LIDAR data and multi-spectral  
12 imagery for coastal shorelines, floodplains and  
13 habitats. We would welcome the development of a  
14 shoreline mapping initiative partnership parallel  
15 to what we have with USGS cooperative seafloor  
16 initiative. In particular, we are very interested  
17 in linking the near shore seafloor information, as  
18 you can see there, up to the dry side. So it's  
19 that very narrow band there which is sort of a  
20 missing link right now.

21 One of the things I want to emphasize is that  
22 states are playing an increasing role in many of  
23 these mapping efforts and are looking to be  
24 partners. We bring state, regional, local and even  
25 private dollars to the table and have direct



1 experience in the application of this mapping data  
2 data.

3 As the panel report found in recommendation  
4 number two, one of the issues that can stand for  
5 some attention and action is the coordination of  
6 similar or related mapping efforts. It is  
7 understandable that different federal agencies and  
8 programs have different mission goals, use  
9 different mapping equipment and generate different  
10 data streams. That said, it is not unreasonable  
11 for coastal and ocean managers, like me, to ask  
12 that concerted efforts be made to reduce  
13 duplication and maximize efficiencies.

14 To illustrate, in Massachusetts, we had two  
15 situations over the past year and a half  
16 coordination efforts, both between federal agencies  
17 and with the states that could have been improved.

18 In one case, in our ongoing USGS seafloor  
19 mapping project, there were areas that we had  
20 mapped in 2006 and had planned for in 2007. And if  
21 you flip over, you can see this, where NOAA mapped  
22 over a portion of this in 2007. We were able to  
23 reconfigure and work with the USGS and NOAA to  
24 maximize the efforts in 2007. We are trying to  
25 reduce that type of duplication.

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1 On a related example, last year the CORE was  
2 flying the northeast to collect bathymetric and  
3 nearshore topographic data. When we heard about

4 this effort, we requested that the CORE consider  
5 expanding flight lines to cover a few small  
6 priority areas. Communication was not ideal, and  
7 at the 12th hour, we were informed that if we could  
8 come up with some dollars, they would fly to these  
9 priority areas. Unfortunately, our fiscal  
10 operations do not allow for such short notice  
11 expenditures. If we had been able to coordinate  
12 this sooner in the process, we could have built  
13 this into our budget and gotten this done.

14 One of the difficult parts of this issue is  
15 that all three federal agencies do a great job. So  
16 it's not a question of one versus the other. It's  
17 a question of making sure that federal and state  
18 hydrographic resources are used to the maximum  
19 advantage.

20 Touching now on the fifth recommendation in  
21 the HSRP report, there's so much data that can be  
22 and should be collected, and while it's imperative  
23 that NOAA address navigation issues, hydrographic  
24 data would be increasingly important as we look  
25 toward the ocean for energy, for food, for

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1 agricultural and other needs.

2 Could there be efficiencies in the integration  
3 of different acoustic data streams. For example,  
4 could our seafloor bathymetry data be used for  
5 charting in the areas where there are not hazard or  
6 liability areas? The compatibility of methods and



7 data, for example, interferometric versus  
8 multi-beam is something worthy of additional  
9 discussion.

10 Clearly, the Panel's aware of the issues among  
11 federal agencies in terms of coordination and the  
12 compatibility of data, although these may not be  
13 examples that you're aware of.

14 Fortunately, and maybe through your report,  
15 federal agencies are taking steps to minimize this  
16 type of problem and have created the **Interagency**  
17 **Work Group on Ocean and Coastal Mapping with NOAA,**  
18 **the Army Corps, MMS, and USGS as agency co-chairs.**

19 Our project manager for the **seafloor mapping**  
20 **initiative** attended this group's meeting last week  
21 here in Florida, and I was very pleased to hear him  
22 report back that discussions on the challenges of  
23 coordinated and effective mapping have led to  
24 specific next steps, including the **development of a**  
25 **national strategic plan, promoting a one-stop shop**

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1 **for viewing and distributing the data, identifying**  
2 **who the mapping community is, organizing ideas to**  
3 **better coordinate the mapping and communicating the**  
4 **value of coastal and ocean mapping in context with**  
5 **other national initiatives, IOOS.**

6 We commend the agencies in their leadership  
7 and the steps in this effort and **we are very eager**  
8 **to see the results of this coordination and**  
9 **collaboration.** We hope that as part of this

10 effort, partnerships with the states are enhanced,  
11 and that the states are invited to be involved  
12 early in the planning processes for mapping  
13 missions so that we can increase the utility and  
14 the use of the data collected. Thank you very  
15 much.

16 CHAIRMAN SKINNER: Thanks, Bruce. Any  
17 questions or comments? Bruce, if you take a couple  
18 of minutes and maybe explain what some of the  
19 seafloor mapping is used for from the state  
20 perspective?

21 BRUCE CARLISLE: In Massachusetts, we're about  
22 to embark, either through legislation or through  
23 some other authorizing vehicle, a comprehensive  
24 ocean management planning effort.

25 And this has largely been a response to

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1 projects in increasingly competing demands for  
2 marine and ocean resources and space. So the  
3 application of this information is going to be  
4 multi-purpose. For start, it's going to provide  
5 the base map for our marine spatial planning  
6 efforts. So similar to the land side where you  
7 must have a USGS topographic map, it shows your  
8 elevations, it shows your developed areas, it shows  
9 your roads, that's going to be a similar base map,  
10 for our marine spatial planning efforts.

11 It's also going to be able to really push our  
12 habitat classification areas, so we're going to be

13 able to start filing to show areas on the map in  
14 terms of both the geology, as well as some of the  
15 surficial biology. It's going to help us in the  
16 siting and review of major projects and minor  
17 projects, but major products.

18 For example, two deep water port L & G  
19 facilities both are proposed in Massachusetts Bay,  
20 were actually permitted. Both of those have to do  
21 underground laterals to tie into the pipeline  
22 infrastructure, so obviously finding out where the  
23 siting of those pipelines is most appropriate is  
24 driven by the information that we would be able to  
25 get from something like this.

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1 And then, finally, for example, I think it was  
2 mentioned earlier on the CORE'S effort, the  
3 regional sediment management is a really big issue;  
4 so dredging, beneficial reuse, beach nourishment  
5 and shoreline protection for, you know, sea level  
6 rise and storm protection is another major thing.

7 CHAIRMAN SKINNER: All right. Thank you very  
8 much. Other questions? Chantal?

9 CHANTAL COLLIER: Good morning. Almost  
10 afternoon, I guess. Thank you very much for this  
11 opportunity to address you, Chairs of the  
12 Hydrographic Services Review Panel, as well as  
13 Panel Members, my fellow guest panel members and  
14 members of our local community who are able to join  
15 us here today.

16 I'm pleased to be here representing the State  
17 of Florida and the Department of Environmental  
18 Protection and the coral reef Conservation Program.

19 I will be speaking specifically about resource  
20 management and vessel safety applications of  
21 hydrographic services here in Southeast Florida.

22 NOAA has been a wonderful partner in the  
23 conservation of Florida's coral reefs. Our  
24 collaboration in the Florida Keys National  
25 Sanctuary goes back several decades. And more

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1 recently, here in Southeast Florida, through the  
2 Southeast Florida coral reef Initiative and South  
3 Florida's participation in the U.S. coral reef Task  
4 Force, members of the community and federal and  
5 local and state partners have been working together  
6 to address our resources here.

7 One of the earliest commitments through the  
8 United States coral reef Task Force was to map all  
9 shallow water reefs by 2009. And these habitats  
10 are very critical to our ability to address  
11 pressing resource management needs and to evaluate  
12 the effectiveness of our management actions.

13 Unfortunately, we've been told that, due to  
14 the current budget constraints, it may be another  
15 decade before Florida's maps are completed. While  
16 this is disappointing generally, it also prolongs  
17 the potential for serious damage to coral reefs and  
18 vessels navigating the waters of Florida.

19 I would like to bring your attention to two  
20 handouts that I passed out during the break that  
21 should be on all the panel members' tables, and  
22 there are additional copies on the back table for  
23 anybody from the audience who would like to see  
24 one.

25 The first is actually a poster that speaks to

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1 a wonderful action that just took place yesterday,  
2 which was a redesignation of the anchorage areas  
3 off of Port Everglades. Going back into 1993, two  
4 large ship anchorages were designated by the U.S.  
5 Coast Guard on the State of Florida's submerged  
6 lands offshore of Port Everglades in  
7 Fort Lauderdale, Florida. The purpose of these  
8 anchorages was to eliminate random anchoring on  
9 nearly coral reefs by ships that were in transit or  
10 awaiting shipment orders. However, because of  
11 their proximity to the shore and to the coral reef  
12 resources in the area, the location of these  
13 anchorages led to the unintended consequence of  
14 significant coral reef injuries from ship  
15 groundings and anchors drags, as well as the  
16 attendant ship damages that come with those  
17 incidents.

18 Since 1994, the location of these anchorages  
19 offshore of Port Everglades has contributed to over  
20 44,000 square meters -- nearly 11 acres -- of  
21 injury to Southeast Florida's coral reefs

22 ecosystems, from at least 10 separate ship  
23 grounding incidents, and there are additional  
24 anchorage drag damages that have contributed to  
25 them as well. The estimated value or cost,

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1 depending on how you look at it, of these reef  
2 resources and the injuries that they've incurred is  
3 nearly half a billion dollars.

4 Yesterday, on March 6th, a reconfigured  
5 anchorage area was enacted by the United States  
6 Coast Guard. The changes to the existing Port  
7 Everglades commercial vessel anchorages include:  
8 Elimination of the section of the anchorage closest  
9 to sensitive living coral reefs, expanding the  
10 anchorage in deeper waters further away from the  
11 reef, and the elimination of the time that a vessel  
12 can stay in the anchorage to 72 hours.

13 This action was a direct result of  
14 recommendations by the Port Everglades Harbor  
15 Safety Committee's Anchorage Working Group  
16 following a review of commercial vessel groundings  
17 off the Fort Lauderdale coast. And the  
18 consultation, very importantly, was with local  
19 stakeholders, including again, local, state and  
20 federal agencies, anchorage users, pilots and a  
21 research institution in the area. This was done as  
22 a management solution to attempt to prevent further  
23 damages to ships and injuries to the reef.

24 Notably, the publication of the proposed and



25 final anchorage rules could not have proceeded

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1 without the full-bottom coverages hydrographic  
2 services provided by NOAA in 2007. These surveys  
3 identified potential anchorage obstructions on the  
4 seafloor within the footprint of the new anchorage  
5 area, and enabled the delineation of the final  
6 anchorage footprint that was proposed in the final  
7 rule. Subsequent charting of the anchorage area,  
8 that will come now that it has been enacted.

9 I would like to next bring your attention to  
10 the second handout that I brought, and that is of  
11 the Port of Miami current anchorage area.  
12 Currently, the State of Florida and its partners  
13 are working to develop alternatives to the  
14 anchorage off the Port of Miami which presently  
15 sits directly over a large portion of coral reef  
16 habitat. This coral reef, which is an extension of  
17 the Florida Keys' coral reefs further to the south,  
18 is a valuable part of the marine ecosystem in  
19 Southeast Florida and must be protected.

20 I would like to point out that the value of  
21 resources in Florida's extremely important. We  
22 heard a little bit about the economic importance of  
23 surety, and absolutely, we need to look at the  
24 balances of the needs of the state in terms of its  
25 tourism dollars and in terms of the industry that

1       it generates through maritime shipping.

2               But I'd like to point out that for the  
3       resources in Southeast Florida, we had a  
4       socioeconomic study done in 2001, and then again in  
5       2004; and cumulatively at that time, so the value  
6       is certainly much greater now, we know that the  
7       reefs in Southeast Florida, from the Dry Tortugas  
8       to the Florida Keys and Southeast Florida,  
9       generated 6.4 billion dollars annually in sales and  
10      income and supported over 71,000 jobs in the  
11      region.

12             Currently, ships in Miami are directed to  
13      anchor on the reef off of Miami, causing extensive  
14      damage from anchors and anchor chain. In order to  
15      make an emergency rule change, the federal  
16      registry -- it would be necessary for NOAA to  
17      hydrographic survey the area so we can examine  
18      potential alternatives to the current anchorage  
19      configuration.

20             The anchorage area off the Port of Miami is  
21      approximately four square miles and contains about  
22      one square mile of coral reef habitat. To  
23      facilitate moving the Port of Miami anchorage off  
24      of this coral habitat, and to prevent further  
25      destruction, on behalf of the citizens and

1 stakeholders of the State of Florida, I urge the  
2 Hydrographic Services Review Panel to strongly  
3 consider elevating the Port of Miami area on its  
4 list of priority survey areas to be completed  
5 before fiscal year 2008 -- or 2009.

6 I understand that there has been a  
7 decommissioning of the Rude in this region, and so  
8 I hope that this panel can look to this issue and  
9 see if there are some creative ways we might be  
10 able to address that. Thank you.

11 CHAIRMAN SKINNER: Thank you very much.  
12 Questions? Comments?

13 CAPTAIN HICKMAN: Sherri Hickman. For Port  
14 Everglades, the 72-hour limitation at the  
15 anchorage, is that to keep congestion down? Is  
16 that what the hope is for that?

17 CHANTAL COLLIER: In part, yeah, but also to,  
18 I think, try to discourage vessels staying in that  
19 area unnecessarily. One of the things that we  
20 learned through the process of the working group  
21 and the intended study that was done, to evaluate  
22 alternatives to the existing anchorage  
23 configuration. And currently, until yesterday, was  
24 to look at the use of those anchorages by vessels.  
25 And not all of them are actually vessels that are

1 coming into the port. Many of them are awaiting  
2 shipment areas and they're just stopping there

3 temporarily.

4 CAPTAIN HICKMAN: Who's going to enforce that,  
5 do you know?

6 CHANTAL COLLIER: Coast Guard designation.  
7 But we are looking now, that's obviously a very  
8 important next step, to make sure that that  
9 anchorage area is enforced. So we will be working  
10 closely with our fellow officers, with the Florida  
11 Fish & Wildlife Commission and NOAA, as well as the  
12 Coast Guard, too, making sure that it's enforced,  
13 and information about the new designation in  
14 addition is well advertised to mariners.

15 CAPTAIN HICKMAN: Thanks.

16 MR. WELCH: Ed Welch. I know that some of the  
17 vessel groundings in the Florida area over the last  
18 few years have been either negligent navigation by  
19 the mariners or some mechanical problems that calls  
20 the vessels to drift; but have you been able to  
21 quantify or could you quantify what proportion of  
22 the damages and costs that you described might be  
23 indirect or directly attributable to lack of proper  
24 charting or mapping?

25 CHANTAL COLLIER: Well, that is actually a

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1 challenge. We don't actually have that information  
2 directly, but one of the big difficulties that we  
3 do have is that the location of the reefs is not  
4 actually currently on charts. There are notes in  
5 the charts that indicate the presence of the reefs,

6 but they're not actually delineated on the charts  
7 relevant to the position of the anchored areas.

8 And so that's something that we've actually  
9 spoken about with our regional coordinator, Todd  
10 Hobbs, who was the individual who assisted us in  
11 getting these areas surveyed for Port Everglades,  
12 so that we could move this -- create the new  
13 anchorage area. But that is something of concern  
14 and one of the things, as he was leaving his post,  
15 and Mike Henderson has joined us as the new local  
16 representative. We have been working with through  
17 NOAA's charts office to see if there aren't better  
18 ways that we can indicate on the next publication  
19 of charts the presence of the reefs in that area.

20 We do have that area now for Broward County  
21 and for Palm Beach County through work that NOAA  
22 and the State of Florida and the National  
23 Institute, Nova Southeastern Institute have done to  
24 create, which you're actually seeing part of that  
25 framework for Miami. We're in process of

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1 developing the habitat maps for Miami that we  
2 currently have in Broward and Palm Beach County  
3 counties.

4 MR. WELCH: So is your sense that first with  
5 regarding to the anchorage area in Miami there just  
6 needs to be additional work to see what  
7 possibilities there could be as far as adjustment  
8 to the anchorage, but second, in the later thing,

9           there's a desire to have the actual reefs shown on  
10           the map as opposed to some type of footnote or a  
11           reference?

12           CHANTAL COLLIER: Well, yes, both of these  
13           things. But if you look at the map that I  
14           presented to you, you can see that we don't  
15           actually have any information on the area of the  
16           seafloor to the east of the red reefs that are  
17           highlighted in that handout. A large part of that  
18           area may be suitable for anchoring, but we don't  
19           have that mapping information at all.

20           We also need to better understand the area to  
21           the inside of the reefs because a lot of the  
22           vessels that call on the Port of Miami are those  
23           that are going up river and are smaller vessels  
24           that have need for shallow water anchorage, so we  
25           need to be able to look at all the area around the

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1           reefs, to the north, south, east and west, if at  
2           all possible, to be able to examine the best  
3           alternative to the current configuration of the  
4           anchorage, to move it off of the reef is the most  
5           important thing.

6           CHAIRMAN SKINNER:

7           DR. JEFFRESS: Does Florida have any  
8           legislation to protect the reefs, the coral reefs,  
9           from intentional damage or even negligence if a  
10           boat comes up on a reef and destroys a section of  
11           it? Is there any sort of compensation system or



12 fining system for damage?

13 CHANTAL COLLIER: Yes. Florida Statutes do  
14 hold permissions for that, for the development of a  
15 penalty schedule. We're actually currently in the  
16 process of working on that. In Southeast Florida,  
17 the reefs are managed a little bit different than  
18 they were in the Florida Keys National Sanctuary.  
19 The Sanctuary is comanaged by NOAA and the State of  
20 Florida, and through the National Sanctuaries Act  
21 there are strong regulations in place for that.

22 Currently, you may also be aware that the CORE  
23 of Conservation Act has passed the House and is now  
24 sitting with the Senate committee on oceans, and  
25 there are strong liability provisions with that as

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1 well, for instance, to all the state and  
2 territories within U.S. waters to pursue damages to  
3 reef resources.

4 In Southeast Florida, because there hasn't  
5 been a more coordinated and formal management plan  
6 in place for the reefs in this region, north of  
7 Biscayne National Park, it extends all the way up  
8 to the Florida Keys, through Miami, Fort  
9 Lauderdale, Palm Beach, and all the way up to St.  
10 Lucie and Martin County. And there hasn't been a  
11 strong coordinated effort to do public education  
12 and to develop a management plan for this region,  
13 and that's why the Southeast Florida coral reef  
14 Initiative was created through the United States

15 coral reef Task Force, to develop local action  
16 strategies that largely address the threat to the  
17 reefs in this area and work towards developing a  
18 management plan for them.

19 So that type of action is the thing that we're  
20 working on. The initiative has only been in place  
21 now for a little over three and a half years. And  
22 we have many projects. And we're working on right  
23 now more on key threats and local projects that we  
24 can address on a shorter term basis, while at the  
25 same time striving to develop stronger management

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1 action while protecting the resources north of the  
2 Keys.

3 CHAIRMAN SKINNER: Question here.

4 CAPTAIN JACOBSEN: Does vessel traffic service  
5 direct the ships to anchor or can they do that?

6 CHANTAL COLLIER: I'm sorry. Could you repeat  
7 the question?

8 CAPTAIN JACOBSEN: Does the vessel traffic  
9 direct the ships to anchorage or can they do that?

10 CHANTAL COLLIER: The vessel traffic service  
11 at the port?

12 CAPTAIN JACOBSEN: Yes.

13 CHANTAL COLLIER: My understanding is that the  
14 harbor safety's manager office is contacted and  
15 vessels are directed to anchor within the  
16 designated Coast Guard anchorages. And so because  
17 the anchorage is currently sitting on top of the

18 reef, ships are being directed off the  
 19 Port of Miami to anchor directly on top of coral  
 20 reef resources.

21 CAPTAIN JACOBSEN: Okay. I think they're  
 22 answering my question. I guess you don't have --  
 23 the vessel traffic service doesn't have oversight  
 24 over that area? The Coast Guard, or ETS. Okay.

25 CHANTAL COLLIER: And the Coast Guard works

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1 very closely with us to try to make sure the  
 2 vessels are anchored in the appropriate area. But  
 3 again, being that that's not their priority  
 4 mandate, it's a little bit difficult to enforce  
 5 that without additional assistance. And when we  
 6 have an anchorage like this that's sitting on top  
 7 of the reef in the first place, we have a real  
 8 quandary that we need to address on that.

9 MR. ZILKOSKI: I want to just make a comment.  
 10 This is something that -- I'm the director of the  
 11 national geodetic survey. And so our positioning  
 12 activities that we're doing is basically for making  
 13 maps and so forth. But we have tried to take our  
 14 knowledge and do that to a position under the  
 15 water. We have something called a Shallow Water  
 16 Positioning System. And I noticed on your diagram,  
 17 you got diagrams in there taken after the damage to  
 18 do the assessment.

19 I think this is an example of what NOAA is  
 20 trying to do in taking some of their NAV site and

21 creating a usable non-navigation project. We  
22 didn't develop it originally for that. We  
23 developed it positioning capability. But, once  
24 again, I'm not sure we're really capitalizing on  
25 that and getting that out and showing people how to

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1 use it -- and actually, our partner is right here  
2 at the University of Miami. He's demonstrating it  
3 and doing it, so we should probably talk with him,  
4 but maybe you can help me get this out for using.

5 CHAIRMAN SKINNER: Any other questions or  
6 comments? Thanks very much.

7 The next presentation is from Becky Hope, the  
8 Operations Director of the Port of Miami. Becky,  
9 we heard from Bill Johnson earlier, so...

10 BECKY HOPE: Hi. I'm Becky Hope from the  
11 Port of Miami. I understand my director, Bill  
12 Johnson, was here earlier.

13 MS. DENTLER: Would you speak up or speak  
14 louder?

15 BECKY HOPE: Do you mind if I stand up? That  
16 might be a little better.

17 MS. DENTLER: I'm having trouble hearing you.

18 BECKY HOPE: Yeah, I know. I think I will do  
19 better if I can stand up. I'm sorry. I do have a  
20 soft voice, unless I'm yelling at my kids. And I  
21 don't have a presentation. I do apologize. I've  
22 been out with the flu all week.

23 You're hearing from the different group of

24 panelists. I'm going to speak more as a port  
25 owner. Again, at the Port of Miami we're the

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1 second largest economic engine in Miami-Dade  
2 county. We employ over 110,000 people directly,  
3 indirectly. And our entrance channel -- and  
4 actually, I'm going to use Chantal's diagram, since  
5 you guys have it.

6 CHANTAL COLLIER: There's also one up on the  
7 wall there.

8 BECKY HOPE: Oh, okay, perfect. I'm going to  
9 wander around. Our entrance channel is outlined in  
10 this diagram, and it's approximately two miles,  
11 maybe four nautical miles going into the  
12 Port of Miami. This is South Beach. This is  
13 Fisher Island. And the port actually is out over  
14 here.

15 We completed to minus 42 feet of dredging back  
16 in the mid-'90s and January of '07, along my south  
17 shipping channel, which is where my cargo vessels  
18 go in, we completed to minus 42 feet and the charts  
19 that we utilize here at the port are done by the  
20 Army Corps. For my 32 foot channel, the Army Corps  
21 came and did the survey and this all became -- it  
22 has not been on NOAA, you know, chart.

23 Our island, we have about 19,000 linear feet  
24 of berthing, 9,000 linear feet is dedicated to  
25 cruise, the other ten is dedicated to cargo.

1           I'm sorry. I was asked to come and speak to  
2           you about our charts or NAVS and the services that  
3           you guys provide, but I wanted to kind of give you  
4           a snapshot of where we are and what we're looking  
5           at. In the future of the port is we're going to do  
6           dredging probably five years down the line,  
7           depending on, you know, the appropriation -- we  
8           just got authorized to dredge 52/50 feet. 52 feet  
9           will be out over there in the outer channel, 50  
10          within our inner channel.

11          With the Panama Canal deepening and opening  
12          and doing the new locks, we are the closest U.S.  
13          deep water port to the Panama Canal. So we're  
14          trying to come on line with our 50-foot project,  
15          too, in line with the new Panama Canal. And again,  
16          you know, we got to go through PED and permitting  
17          and all the mitigation work associated with that.  
18          Again, our charts will be revised after that  
19          dredging occurs.

20          Because there are -- our channel is short  
21          relative to the deep water river ports, usually our  
22          charts are typically only updated with dredging  
23          activities, unless, you know, you have an incident  
24          and so forth.

25          So what we'll be looking for -- and again, I



1 will touch on Chantal's speech because that was on  
2 my list -- is our updated shoreline features, our  
3 berthing areas. If you look at the current charts  
4 at the Port of Miami, you're looking at charts  
5 probably based on our land in the early '90s.  
6 We've extended water, we've put in -- Jon, correct  
7 me if I am wrong -- we probably put in about  
8 another 1500 linear feet of berthing area that's  
9 not outlined in the charts at all.

10 MR. DASLER: 1495, yeah.

11 BECKY HOPE: Yeah, I was close, yeah, 1495.  
12 Thank you. And with the ships that are coming in  
13 that are larger, let me go back to Chantal's  
14 diagram. You'll see our entrance channel right  
15 coming over here right smack in the middle of the  
16 reef. My 52 foot project is going to widen this  
17 entry channel. We are going to impact some reefs.  
18 But with the deep water draft vessels that are  
19 coming in, on my charts, you have your sea buoy out  
20 here, so the ships are coming in thinking they need  
21 to align with this particular sea buoy.

22 Because my channel is not getting wider, it's  
23 staying the same width throughout the channel, my  
24 ships with the deeper draft need to line up with  
25 that sea buoy; not where the sea buoy is, but

1 approximately a mile out. And when these pilots

2       come from -- you know, not our local pilots, but  
3       from the vessels that come from all around the  
4       world, you know, they're trained traditionally to  
5       line up with the outer sea buoy.

6               These revised charts that will be done after  
7       this dredging project, we need to make sure that a  
8       sea buoy is marked on the charts further out so the  
9       ships are given a chance to navigate and align with  
10      the channel to avoid any potential reef impacts or  
11      any other kind of groundings that may happen. And  
12      that is something that, you know, we will look to  
13      utilize and to the Corp and, hopefully, by then  
14      NOAA and the Army Corps will coordinate these  
15      surveys, 'cause that is something that, you know,  
16      we are looking to the future to make sure will help  
17      eliminate any potential things.

18             And again, Chantal already commented on the  
19      updated anchorage. And the last thing I wanted to  
20      discuss is earlier as part of this presentation you  
21      guys discussed a lot of the ports programs, the  
22      current monitoring. We just wanted to touch base  
23      on that. Although that program sounds like a great  
24      program, as far as the Port of Miami is concerned,  
25      it's got a lot of bells and whistles on it that

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1       isn't so useful that we wouldn't use -- I'm just  
2       speaking at the Port of Miami, not at all the  
3       seaports. You know, the port would like something  
4       like that here, but just for the realtime current

5 monitoring. That is probably the most practical  
6 aspect of that entire program that we would  
7 utilize. Do you have any questions? Thank you.

8 CHAIRMAN SKINNER: Thank you. That was very  
9 interesting to have two presentations together.

10 BECKY HOPE: Actually, that wasn't planned.

11 CHAIRMAN SKINNER: I think there was. There  
12 may have been some planning on that.

13 BECKY HOPE: I kind of skimmed down on part of  
14 mine. Thank you.

15 CHAIRMAN SKINNER: Any questions or comments?  
16 Mike?

17 DIRECTOR SZABADOS: Just one comment regarding  
18 the port system and the different capabilities.  
19 Each of the ports are designed based on the use  
20 requirements. So based on Miami's requirements,  
21 we're -- the scenario, we would sit down with the  
22 port authority, the shipping companies, the pilots  
23 and any other appropriate individual, we would  
24 design that port around that system, of the  
25 requirement.

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1 Another thing I want to add is regarding the  
2 importance of currents. We do provide also tidal  
3 current predictions. And actually, a crew is  
4 arriving this month to update the current tidal  
5 predictions for Miami, and they will be done this  
6 season and will show up in 2009 predictions. So  
7 you will get the update of that.

8 BECKY HOPE: Yes, please do, and I have  
9 something from the Biscayne Bay Pilots back here,  
10 too, who I'm sure would love to hear more about  
11 that, too.

12 DIRECTOR SZABADOS: I will be happy to meet  
13 with them.

14 BECKY HOPE: Thank you.

15 MR. WELCH: I'm sorry. Ed Welch. Is the  
16 Port of Miami on board with the concept of moving  
17 the anchorage if surveys show inadequate as  
18 elsewhere?

19 BECKY HOPE: Yes, yes, definitely. I'm  
20 actually part of the team that's working on  
21 coordinating it.

22 ADMIRAL WEST: Becky, I probably should have  
23 asked your boss this morning, but I'm sure he  
24 passes the hard questions on to you, but he said he  
25 spent 20 million dollars for security concerns. I

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1 think he made the point he was kind of bankrupt  
2 because of it.

3 Do you have any idea, just roughly  
4 percentage-wise, how much of that is what you feel  
5 you have to do and how much is mandated by the  
6 federal government? Do you have any -- I mean, are  
7 you spending all 20 million because that's what you  
8 want to do or you're being told to do or -- is that  
9 that --

10 BECKY HOPE: That is actually a question for

11 Bill.

12 ADMIRAL WEST: I should have asked him, right?

13 BECKY HOPE: Ports are required to put

14 together a security plan and you had a certain

15 amount of time to put together a security plan.

16 And security plan --

17 ADMIRAL WEST: And this is the Feds telling

18 you to do this?

19 BECKY HOPE: Yes. Correct? State? Feds?

20 JOSEPH SCOLARI: We largely respond to FDLE,

21 the Florida Document of Law Enforcement.

22 BECKY HOPE: Those are the folks that come

23 down and do their annual inspections.

24 ADMIRAL WEST: So the bulk of your 20 million

25 was to meet the requirements of the state?

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1 JOSEPH SCOLARI: Trying to make the state

2 happy.

3 ADMIRAL WEST: Okay. Do you have any

4 requirements from the Feds from Homeland Security

5 that adds to that or is that --

6

7 JOSEPH SCOLARI: I'm not privy to that.

8 BECKY HOPE: I am sorry. I can give you my --

9 CAPTAIN MYRTIDIS: It's on the way down from

10 the federal government to --

11 ADMIRAL WEST: They pass it to the state and

12 then --

13 CAPTAIN MYRTIDIS: All the port security goes

14 all the way from the top down.

15 MR. WELCH: Admiral, there's a very

16 comprehensive Federal Maritime Security Law that

17 was passed in 2002. It has tremendous mandates on

18 all sections of the maritime industry, just about

19 all of the security mandates are dictated by the

20 Feds. And they're very voluminous in nature.

21 Individual mariners are subject to some costly

22 requirements and ports and vessel operators and

23 it's -- the Feds have a few million dollars in port

24 security grants that cover just a fraction of what

25 people have to spend.

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1 ADMIRAL WEST: I don't want to add anything

2 more to our plate, but I think there's something

3 here for us. Because if you're going bankrupt

4 doing something from a -- I'm sure the federal

5 government knows how to do that very well -- and

6 not doing some things that for safe navigation and

7 efficiency and stuff like that, then maybe we ought

8 to take a look at it. Maybe we as a federal

9 advisory committee need to go back and say, look

10 it, you bankrupt them on your security requirements

11 and meanwhile people are running around and bumping

12 into things. But I don't have a feel for that, but

13 I think that may be happening, but I don't know.

14 BECKY HOPE: One thing I do want you to

15 understand, on top of the federal regulations. We

16 do have Florida -- FDLE does have an extra layer



17 because I know there's a lot of discussion between  
 18 the TWIP (ph) card and the ports that are familiar  
 19 with. I haven't gotten my TWIP card, but I will.  
 20 And then we also have the Florida FLIPAP (ph),  
 21 which is an additional ID for Florida ports that we  
 22 are trying to get coordinated for the FLIPAP port,  
 23 so we don't have to allow every port to have three  
 24 different IDs, which is where we're doing right  
 25 now. But that is something that you might see at

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1 the Florida ports, i.e., Port Everglades, Port of  
 2 Miami and certainly every other of the U.S. ports.  
 3 CAPTAIN BARNUM: First I want to thank you  
 4 Becky for coming today. Just a couple of comments.  
 5 NOAA's, of course, is the one that produces the  
 6 charts and takes a bunch of data from the Corps of  
 7 Engineers and the Coast Guard and everybody and  
 8 compiles it onto the nautical chart so they can be  
 9 published. So you're talking about the buoy, that  
 10 would be certainly something that the Coast Guard,  
 11 they're the folks that maintain the buoys. And so  
 12 working with the Harbor Safety Committee, and I'm  
 13 sure those groups have decided where that's placed.  
 14 And that information will then come to NOAA.  
 15 BECKY HOPE: We just started the Harbor Safety  
 16 Committee last month from the first meeting, so  
 17 that's just beginning.  
 18 CAPTAIN BARNUM: Excellent. Excellent. Well,  
 19 and I also wanted to talk about the port

20 facilities. You know, certainly there are things  
 21 springing up all the time around the country for  
 22 new facilities. And part of the process is that  
 23 when the permit -- when facilities are built, they  
 24 get a permit to build and part of that is they're  
 25 supposed to send the as-builts to NOAA to be

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1 incorporated in the chart. But there's no teeth in  
 2 that for somebody that doesn't do it and things  
 3 fall through the crack. But through the Harbor  
 4 Safety Committee, if you've got punch, which I'm  
 5 really glad to hear.

6 Certainly Mike Henderson is our contact, and  
 7 if you see things that are wrong with the nautical  
 8 chart, let him know and that let's us know to be  
 9 able to address that.

10 BECKY HOPE: Thank you.

11 CAPTAIN HICKMAN: I've got one more question.  
 12 This 20 million dollars that -- did you guys -- not  
 13 good for homeland security, getting refunded?

14 BECKY HOPE: Okay. Again, I am definitely  
 15 speaking outside my area. Yes, we have applied for  
 16 grants. But when you apply for grants, you're  
 17 competing with all the other U.S. ports and the  
 18 grants are specific projects. And as the years  
 19 have gone by, since 9-11, some of the projects that  
 20 you go and you apply for grants, you know, back in  
 21 '02 and then your regulations change and so forth,  
 22 the projects goes to change and you need to get

23 approval.

24 And now the way the federal governments has  
25 revised the way they give out security grants where

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1 you're on a tier-based. Each port is placed on a  
2 different tier, you got tier one, tier two and tier  
3 three, and those were organized not by the port  
4 themselves but by another entity. And forgive me  
5 because I don't know enough about it. But we have  
6 to apply for grant within our given tier at this  
7 juncture. And the grants do not cover O & M. They  
8 don't cover my police officers, my security guards,  
9 the folks that have to go there day in and day out.  
10 They only cover capital improvement projects, and  
11 that's to be in the approved list if we had those  
12 projects approved because of other ports.

13 CAPTAIN HICKMAN: Thank you.

14 CHAIRMAN SKINNER: Any other questions or  
15 comments?

16 MICHAEL HENDERSON: Mr. Chair, if I may from  
17 back here, the peanut gallery.

18 CHAIRMAN SKINNER: Do you want to come up?

19 BECKY HOPE: I can bring you the speaker.

20 MICHAEL HENDERSON: I just wanted to add a  
21 comment or two. As the NOAA ad manager for Florida  
22 and the U.S. Caribbean, as well as Savannah, I  
23 wanted to speak a minute on this security issue. I  
24 go to approximately 14 different Harbor Safety  
25 Committee Meetings. The security issue and the

1 funding that is being discussed is discussed at  
2 every one of these.

3 For the last five years, I am hearing these  
4 committees and the port authorities deal with the  
5 issue that everything has been pushed on the back  
6 burner and that their funding or what they can come  
7 up with is going to mandate it security issues; as  
8 you said, from the federal level to start with.  
9 But to echo what Becky said and John added, the  
10 State of Florida is unique in that Florida FDLE  
11 requires an additional layer of security beyond  
12 what the Department of Homeland Security requires.

13 For the ports in Florida, it's a major, major  
14 issue. It's very expensive, it's very time  
15 consuming, and I hear it from Jacksonville to Key  
16 West, and it is -- so, just to give you another  
17 perspective on this, they are all dealing with it.  
18 From someone who flies a great deal and also visits  
19 port facilities, maritime security is far greater  
20 than anything you'll run into at the airport today.  
21 It is just mindboggling, I think, what the ports  
22 have to go to, so I just wanted to add that comment  
23 to the bit, especially for the State of Florida.

24 CHAIRMAN SKINNER: Yes, Mike?

25 DIRECTOR SZABADOS: Yes. I just wanted to

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1 reflect on some of the discussions of our partners  
2 and ports. And reflecting on the cost of security,  
3 when we talked about federal funding of ports or  
4 with the partnership ports, some of the challenges  
5 when we deal with our partners, they identified  
6 that they have such expenses like the security  
7 which impedes them for supporting or participating  
8 in the partnership concept of the ports funding.  
9 That's all.

10 CAPTAIN HICKMAN: Which brings back to --

11 ADMIRAL WEST: Yeah.

12 CHAIRMAN SKINNER: -- right back to Admiral  
13 West's comment earlier. Thank you, Becky.

14 BECKY HOPE: Thank you.

15 CHAIRMAN SKINNER: During the last  
16 presentation, I mentioned earlier that two of our  
17 board members, panel members had been delayed  
18 getting here. We're pleased to have Adam McBride  
19 joining us here, for making it, glad to see you  
20 here.

21 MR. McBRIDE: Tom.

22 CHAIRMAN SKINNER: Next, Chuck Husick.

23 CHUCK HUSICK: Good afternoon. I want to  
24 thank Barbara for inviting me to come here and try  
25 and give you a perspective from what is probably

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1 your largest customer, the recreational boating  
2 community.

3 Recreational boating goes all the way from  
4 people in kayaks and canoes to, for example, the 2  
5 to 300 foot-plus yachts that are currently tied up  
6 at the port of St. Petersburg. One of them carries  
7 a 42-foot sailboat and a 46-foot power boat, as  
8 well as two helicopters; so some recreational boats  
9 are noteworthy, if nothing else, for their size,  
10 opulence and maybe their aggressive expense. One  
11 of them was purchased by a Russian now living in  
12 England who owns a football club, and I think he  
13 paid 100 million for the boat. It was a used boat.

14 Recreational boating uses charts. They don't  
15 always use them well, but they use charts. They  
16 use paper charts. They use paper charts reproduced  
17 on plastic primarily because the quality of the  
18 paper NOAA prints on has deteriorated over the  
19 years and boats get wet, especially small boats,  
20 and the printing on plastic is now very practical.  
21 So we do have good charts in terms of their  
22 physical appearance and usability.

23 But, increasingly, we're using electronic  
24 charts. Out of the roughly 600,000 members of the  
25 Boat U.S. Organization, and I think that represents

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1 about one-third or less than one-third of the total  
2 number of boaters in the U.S., out of that, about a  
3 third of their boats, about a third of the 600,000,

4 are large enough to carry full-size electronic boat  
5 charts. I say full-size, something from five  
6 inches up to 24 inches diagonal. The charts we're  
7 using -- thanks to you -- are first-year RNCs. We  
8 can then, as you know, download RNCs from the web  
9 and put it in the computer and access it.

10 We can also download the ENC's and do the same  
11 thing. And if anybody's interested, during the  
12 lunch break, I will set up a laptop computer and  
13 show you a chart program that I use that sells on  
14 line for 145 bucks -- the charts are free -- and on  
15 which you can overlay an RNC on an ENC, but  
16 puncture the RNC by moving the mouse and pick up  
17 the entire database that's recorded in the ENC  
18 trunk; the best of both worlds, it's a remarkable  
19 system.

20 The average mariner today also uses a lot of  
21 weather information; and, in that regard, I just  
22 want to make a comment about the great success that  
23 NOAA achieved with a lot of help from the world in  
24 defeating Senator Santori's effort to restrict the  
25 distribution of weather information a few years

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1 ago. We were as a community years ago delighted  
2 when that went away.

3 We were also downloading weather from  
4 satellites. We're taking weather from the NOAA VHF  
5 weather radio system. We get weather information  
6 from the NAVTECH system. The port's information is

7 available to us on line. A lot of boats now have  
8 capability to pick that up when they're on shore  
9 and offshore using high speed data cards and cell  
10 phone link. We like to see ports available on our  
11 chart plotter screens.

12 We also integrate radar information and AIS  
13 information on those screens. If any of you got on  
14 a reasonably well-equipped recreational boat today,  
15 I think that you would be rather amazed at what's  
16 available to the mariner. The question is whether  
17 he knows how to use it, and that's a continuing  
18 education problem.

19 We know almost precisely where we are. We've  
20 got GNS information, differential GPS, we still got  
21 Loran-C. I'm delighted to report, if you don't  
22 know it already, that Loran will continue, it will  
23 be developed into E-Loran. It will form a part of  
24 E-navigation. I'm a member of the board of the  
25 RTCM, and we're working hard in that direction with

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1 our foreign partners. It's going to be a  
2 world-wide system.

3 Our problem is although we know exactly where  
4 we are with regard to the theoretical earth, in  
5 most cases in areas outside the major commercial  
6 ports we really don't know where the land is  
7 because you haven't surveyed it. You haven't  
8 surveyed it in some cases for 100 years. I don't  
9 blame you for that. There are lots of places where



10 very few vessels go, only small craft go there.  
 11 However, technology is coming to our rescue to a  
 12 degree.

13 If you look at some of the new commercial  
 14 products, for example, for Reno's new NAV Net 3-D  
 15 system -- and I have a DVD of that if anybody's  
 16 interested in seeing it -- that system will bring  
 17 up on your chart plotter the official NOAA chart,  
 18 either raster or vector. It will then proceed to  
 19 overlay the bathymetric data that's available. And  
 20 then, on top of that, it will put the very latest  
 21 satellite information. And the resolution on that  
 22 satellite information right now, I believe, is down  
 23 to half a meter for pixel. All of that is  
 24 precisely geographics.

25 So if I come into the Port of Miami where

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1 they've added hundreds of different facilities on  
 2 shore that are not on the charts, I'm not  
 3 concerned, I can see them all, they're right there  
 4 in front of me. Not only that, I can manipulate  
 5 the image in 3-D. I can literally fly over the  
 6 area I'm entering.

7 Now, that's of interest to recreational  
 8 boating because recreational boating is like  
 9 general aviation in the sense that we don't always  
 10 go to the same place. Commercial vessels,  
 11 commercial airliners are always flying back and  
 12 forth on the same routes to the same places, unless

13 they're on a charter, a special charter, for the  
14 aircraft.

15 A recreational boater has the freedom and the  
16 ability if he wants to to poke his nose in where  
17 nobody's gone for 20 years. He now has the  
18 advantage of being able to see what's there in  
19 front of him with reasonable assurance that it's  
20 accurate based upon the date of that last satellite  
21 image. So there really is some progress being  
22 made.

23 We will shortly be seeing equipment on the  
24 field that combines Loran with GPS. Those  
25 receivers will give us even more accuracy and,

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1 interestingly, they'll give us the ability to see  
2 magnet heading and true heading even when we're  
3 standing still. That will also improve the  
4 performance of auto pilots. So we're doing pretty  
5 well and we deeply appreciate everything that NOAA  
6 does, especially when we compare our state of  
7 affairs with that of our fellow mariners in foreign  
8 countries, where the government agencies usually  
9 copyright the charts and, therefore, charge for  
10 them.

11 This is even true, by the way -- if you don't  
12 know it -- for the Nautical Almanac which is done  
13 in cooperation with the British. Because they  
14 copyright that, I can't go on download an entire  
15 year's nautical almanac. I'm limited to taking two

16 weeks out at a time. Since I don't rely on  
17 celestial navigation everyday, that's not a real  
18 problem, and anyway, I go out and spend 25 bucks a  
19 year and I can buy an almanac. Why? Because I  
20 have something that's wonderful and beautiful to  
21 do; in addition to which, it works without  
22 batteries.

23 The things that I would like to see occur with  
24 NOAA, of course, is to continue producing more and  
25 more ENC's, RNC's. I would like to see more survey

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1 done of the bottom in areas outside the major  
2 shipping channels and major ports. As example, in  
3 Sarasota, Florida, they've constructed a new  
4 bridge, high-rise bridge to replace a vascular  
5 bridge. Everyone applauded grandly. Until boats  
6 started running into something under the water and  
7 tearing holes in their bottoms and bending their  
8 propeller shafts. The thing that was under the  
9 water was first denied, nobody thought it existed.  
10 It almost reminded me of an anchor in the Delaware  
11 River.

12 It turned out that this was debris from the  
13 bridge that had been demolished back from 1950  
14 before the previous bridge was built. Nobody ever  
15 knew it was there because it happened at the time  
16 when the new bridge was built to be in an area  
17 where a vessel couldn't get through. When the new  
18 bridge was built, that area became open for

19 navigation as part of the main channel. Right now,  
 20 there's a marker buoy. We need to know where the  
 21 bottom is, it would be very useful, I think, and  
 22 especially since you can do that electronically  
 23 now.

24 Lastly, there's an opportunity that lurks out  
 25 there, it's been there a long time, it gets better

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1 all the time, but it has huge impediment in front  
 2 of it. The opportunity is to use the  
 3 perambulations of recreational boaters and others  
 4 to gather data in areas you'll never survey and  
 5 integrate that information into useful chart  
 6 information. If not necessarily an official NOAA  
 7 chart, at least into something usable by the  
 8 average boater.

9 The reason it's possible is we now have  
 10 precision positioning information, GPS, we have  
 11 precision time information, if you'll accept a 200  
 12 millisecond latency. We've got PEP sounders,  
 13 including, for example, a device that's on the  
 14 market from a company -- I'm trying to remember --  
 15 a couple named Hummingberg, a very strange name,  
 16 they produce a high frequency sonar that provides  
 17 video-like pictures of the bottom down to better  
 18 than 100 feet. And this thing sells for less than  
 19 thousand dollars. You can power it off a stack of  
 20 flashlight batteries.

21 So the opportunity exists, the technology is

22       there to use these wandering boats to collect data,  
23       which, if stuffed into an appropriate database,  
24       could then be used, I think, to produce the usable  
25       bottom contour.

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1               With that, we have one last problem that you  
2       can't help us with, but it sure needs work. All of  
3       the solace vessels are required to carry AIS, AISA,  
4       Automatic Information System. Small boats are not  
5       required to carry that. There is a diminutive of  
6       AISA called AISB, it's been designed, it works, it  
7       doesn't interfere with AISA. It provides very  
8       useful information. For example, some of you here  
9       in this room are pilots who routinely navigate  
10      large vessels in and out of crowded ports. I  
11      navigate the port of Tampa all the time, especially  
12      the entrance channel.

13              I see a large vessel or two or three coming in  
14      and going out, and I would like to be able to talk  
15      to them on 13, but I have no way of knowing how to  
16      call them on 13. Frequently, at the position I'm  
17      at, I can't see the name of the vessel and calling:  
18      Would the Blue Vessel with the rusty red stack  
19      please come back? -- doesn't work.

20              If I carry an AIS receiver or AISB, I will  
21      have his MMSI, I can punch that in the radio and he  
22      and I are talking instantly, usually talking to the  
23      pilot because frequently the other people in the  
24      wheelhouse don't necessarily speak English, they

25 speak what I call, IKO English. At any rate, AISB

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1 is held up, the products are in the warehouse. And  
2 it's held up because an agency, the Federal  
3 government, is sitting on their butts; mainly, the  
4 FCC.

5 I mention that at this meeting only for one  
6 reason: The more attention we can draw to the  
7 areas of our government that -- unlike NOAA -- are  
8 bloody inefficient, the better off we're all going  
9 to be. We need to build a fire under those people.  
10 We need to do it before there's an accident and  
11 somebody points the finger and says it's the  
12 Federal government's fault. That's what happened  
13 with the Morning Dew incident, it resulted in 19  
14 billion dollars' worth of unnecessary expense.

15 I just can't tell you how much I admire NOAA  
16 and I also trust you guys, because I not only sail  
17 boats, but I also fly airplanes. Somehow I think  
18 you have something to do with keeping my butt out  
19 of trouble in both cases. Thank you.

20 CHAIRMAN SKINNER: Thank you, Chuck. Yet  
21 another interesting and very different perspective  
22 from the other panel members. Questions and  
23 comments? Admiral?

24 ADMIRAL WEST: Why is the FCC holding it up?  
25 Is it a frequency bandwidth issue?

1           CHUCK HUSICK: No, sir. The FCC is holding it  
2           up because first Maritel objected to use of the AIS  
3           frequencies. That is something they tried to do to  
4           prevent AISA from being used. That went away and  
5           now it's up to the commissioners of the FCC to sign  
6           a piece of paper. We've been asking them to do it.  
7           They have been promising to do it. They haven't  
8           done it. They didn't do it at their last meeting  
9           because they went off to talk about the dirty words  
10          you're not allowed to say on the radio instead.  
11          And we're hoping they're going to approve it this  
12          month, but nobody's holding their breath until it  
13          happens.

14          ADMIRAL WEST: Where did Helen go?

15          CAPTAIN BARNUM: I was thinking the same  
16          thing.

17          CAPTAIN HICKMAN: She'll be back.

18          ADMIRAL WEST: Where's Helen when we need her?

19          CHAIRMAN SKINNER: Other questions, comments?

20          MS. DICKINSON: Yes, Elaine Dickinson. I  
21          would just like to echo what Chuck has said about  
22          utilizing data from the recreational boating  
23          community, because I think the equipment has just  
24          improved, you know, in leaps and bounds. The  
25          electronics that are available on the market for

1 relatively low price are becoming almost  
2 astounding.

3 And I know in the past there have been some  
4 proposals from different groups to feed data to  
5 NOAA from recreational boats because they are going  
6 all over the place where -- I can tell you, you are  
7 never going to get to resurvey them because I've  
8 seen your priorities list, and it's just -- it's  
9 going to be so far down, it's never going to  
10 happen.

11 But in the past, these proposals have just  
12 kind of fallen by the wayside because what we've  
13 heard back is that -- I guess it's a quality  
14 control issue or people have said, well, we don't  
15 know what kind of equipment you boats are using and  
16 it's probably not going to be good enough. And I  
17 think that has changed, and I really think it's  
18 just a tremendous potential to augment all of your  
19 data.

20 CAPTAIN BARNUM: Steve Barnum. To add to  
21 that, NOAA does have and has had for many years  
22 cooperative programs with the U.S. Coast Guard  
23 auxiliary and also the Power Squadron for  
24 cooperative charting. And so those are active  
25 programs. In fact, the Power Squadron I believe

1 just met, I believe it was last week, week before,  
2 at their annual convention and there was an award



3 given for contributions from recreational boaters  
4 for providing updates to the nautical chart. But  
5 it is vast and it's a program that needs to be  
6 expanded, I agree. Some of the areas that these  
7 remote sections probably have not been surveyed in  
8 100 years.

9 ADMIRAL WEST: Let me ask Sherri and Tom their  
10 thoughts about having all these small boats in the  
11 system.

12 CAPTAIN JACOBSEN: The AIS system? Well, as  
13 long as we can turn off AISB so it doesn't get too  
14 cluttered on our screen. We'd like the option to  
15 turn it on to see it and then turn it off to not to  
16 see it, but we're all for it, we think sailboats  
17 should have it.

18 CHUCK HUSICK: AISB doesn't interfere. First  
19 of all, the system has the capacity of 2000  
20 messages per minute. There's not a port in the  
21 world that's going to create that kind of density.  
22 That's been proven by the Coast Guard in their  
23 tests.

24 Secondly, AISA transmits every two seconds for  
25 a vessel that's moving. AISB transmits once every

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1 30 seconds for a vessel that's moving. So that  
2 isn't really a problem. And I think under the  
3 current design of the AISB units are now in  
4 existence, being sold worldwide, being manufactured  
5 in this country and being sold worldwide, there is

6 no input to it that turns it off, as far as I know.

7 CAPTAIN JACOBSEN: Yeah. What I was talking

8 about is the clutter on the screen, so as we're

9 piloting a commercial ship, I want to see all the

10 commercial ships and then flip over to B and see

11 all ships or both.

12 CHUCK HUSICK: Your filtering is primarily a

13 distance filtering, I think. I don't know of any

14 way you can filter out AISB signal because the AISB

15 signal, as I recall, looks identical to the AISA.

16 ADMIRAL WEST: Well, I think that's a problem,

17 the clutter is a problem, especially in some of the

18 areas where you cannot want that, so I don't know

19 if that's something we ought to look at or not.

20 You got the experts here.

21 CHAIRMAN SKINNER: Any other questions?

22 Chuck, will you be around today?

23 CHUCK HUSICK: Yes.

24 CHAIRMAN SKINNER: I overheard some

25 conversations between you and Jack Dunnigan last

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1 night, and I think Jack has revamped his

2 maintenance program, so if you're willing, I think

3 we should encourage people to take advantage of

4 "Ask Chuck" here. Thank you. Next up?

5 CHAIRMAN SKINNER: Helen, you're on the hot

6 seat. We have a question for you.

7 MS. BROHL: Yes, sir. Yes, what would you

8 like me to -- Admiral?

9 ADMIRAL WEST: No, I think --  
10 CAPTAIN HICKMAN: Maybe Chuck would like to?  
11 CHAIRMAN SKINNER: Chuck. Okay?  
12 CAPTAIN HICKMAN: With the FCC, right?  
13 MR. ARMSTRONG: AISB?  
14 CHAIRMAN SKINNER: The question was raised on  
15 the FCC holding up the --  
16 CHUCK HUSICK: Yes, Federal Communications  
17 Commission is holding up approval of the sale of  
18 AISB equipment, which has been designed in  
19 accordance with the tech requirements, has been  
20 built, that's in the warehouse, has been  
21 demonstrated, has been sold for experimental use in  
22 a limited number of cases and is being exported  
23 from the United States. And the approval that's  
24 required is from the FCC commissioners, when they  
25 finish worrying about the seven words you can't say

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1 on the radio. We need help, so to speak.  
2 MS. BROHL: What I will do is obviously, you  
3 know, the guys who handle AIS, you know, Brian  
4 Tetrolt and Jorge Aureoro of the Coast Guard are  
5 trying to settle this out and get it completed so  
6 they can fully implement the AIS as they need to,  
7 they are probably very cognizant of that. What  
8 they could do is I will talk to them about what you  
9 just said and certainly Admiral Watson, who is our  
10 day-to-day contact for the coordinating board,  
11 mentioned that it came up, and I will do that and

12 make sure that I copy Jack and anybody else from  
 13 NOAA and inquire as to whether that's something  
 14 they feel from the CMTS would put on the agenda for  
 15 a future meeting. They would have to concur, of  
 16 course, and feel comfortable with it; but if you're  
 17 okay with it, Jack, I'll do that and make sure that  
 18 you guys are aware of it.

19 CHUCK HUSICK: Thank you. And, as far as I  
 20 know, everybody is happy with this system. It's  
 21 just a procedural matter now at FCC. We have, by  
 22 the way, as a community, contacted various  
 23 congressmen and senators and tried to get them to  
 24 push the commission. This is not a technical  
 25 problem, it's an electronics problem.

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1 MS. BROHL: I understand. And it may be that  
 2 even, what I would think, an impressive delegation  
 3 of politicals and careers in the Federal government  
 4 can't push them either. However, we can certainly  
 5 make that effort to inquire as to whether the  
 6 agencies that are impacted by this might bring it  
 7 to the committee and perhaps the Chair would want  
 8 to write a letter in support.

9 CHUCK HUSICK: Thank you. One last comment on  
 10 AISB on filtering. AISB transmits, I believe, at  
 11 two watts, so you're going to automatically loose  
 12 them because of signal strength differentiation.  
 13 You're not going to see a large clutter from them.

14 CAPTAIN JACOBSEN: I'm not sure about that. I

15 mean, it's -- we operate around hundreds of boats  
16 in L.A. Long Beach and going down the channels,  
17 they're attacking all around us and sometimes it  
18 would be nice if you want to see commercial vessels  
19 turn off, filter, the --

20 CHUCK HUSICK: Yeah. The boats that you're  
21 seeing tacking around aren't going to be carrying  
22 AISB equipment. That equipment costs over a  
23 thousand dollars by the time you install it.  
24 They're not going to put it on little boats.

25 MR. DUNNIGAN: We're talking away.

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1 ADMIRAL WEST: It's just a Federal bureaucracy  
2 problem, fine, let us know that. I have a gut  
3 feeling it's not just all that. I think there's  
4 some operational implications here and I think we  
5 as a panel ought to hear about it somehow. I don't  
6 know where to go to get it, maybe Tom can help us  
7 out, but I have dealt with AIS and whether the Navy  
8 should use it or not and that was a nightmare, but  
9 so I got familiar with it. And then maybe  
10 something along with what Tom's talking about is  
11 how do we manage this immense amount of information  
12 that we're pumping, especially in some high-clutter  
13 areas. If it's just a procedure problem, fine, I  
14 will let the Feds figure that out. If not, I think  
15 the panel should know about it.

16 MR. WELCH: Ed Welch. Admiral, the problem  
17 that Chuck is describing is sort of a technology

18 advancement Federal government approval problem.  
 19 There's another aspect of this, is to -- the Coast  
 20 Guard's requirements are who has to carry AIS and  
 21 where they have to carry it. And right now, the  
 22 commercial vessels -- most commercial vessels that  
 23 operate in those areas that have Coast Guard VTS  
 24 systems have to carry it and use it, and so that's  
 25 about 13 areas around the country where this is

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1 required.  
 2 Now, the second step of the Coast Guard's rule  
 3 which has been repeatedly delayed has been to  
 4 expand the mandatory carriage, basically nationwide  
 5 and to expand it to even more commercial vessels  
 6 than are currently carried. And that has been  
 7 controversial for a number of reasons over time  
 8 because of the smaller the commercial vessel, they  
 9 say, wait a minute, this is a unfunded mandate on  
 10 it. And at one point these units were costing 10  
 11 to \$12,000. Now the price has dropped drastically.  
 12 And as the price drops, I think potential  
 13 resistance to it from the commercial sector is  
 14 going away, too. And now, these other units with  
 15 the new technology are within the financial reach  
 16 of a certain segments of the industry, too. So the  
 17 commercial has not come out yet with their proposed  
 18 phase two mandatory carriage requirements for AIS.  
 19 That's -- that could come out in the next year or  
 20 so.

21 ADMIRAL WEST: Well, the international  
22 standard is IMO. I mean, they set it up and that's  
23 what it is, and you live with it. And I think it's  
24 1600 times, I forget what the heck it all is. So  
25 they set the standards and the Coast Guard

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1 represents the U.S. as the input to IMO, and  
2 there's been a whole initiative to move up the  
3 dates and years, and it was a gradually integrated  
4 thing. The problem with AIS is all of a sudden we  
5 went from, you know, calling on Channel 16 to who  
6 are you over there 'cause this is an enormous  
7 amount of data, and with all our digital capability  
8 to pull all this information. Now we got kind of  
9 overwhelmed, quite frankly, and we were trying to  
10 pin down what's transmitted.

11 So my guess is there may be some operational  
12 implications here. It may have been just a phone  
13 call from some operational institution to FCC  
14 saying, wait a minute, I got some concern with how  
15 we're going to handle this. I don't know. But if  
16 it deals with navigation and safety, we ought to  
17 know about it. That's my only request.

18 CHAIRMAN SKINNER: Helen, do you have one  
19 additional comment?

20 MS. BROHL: Yes, real quickly, because it  
21 relates directly to the left hand/right hand issue  
22 and Steve can relate to this. The Coast Guard's  
23 waiting to promulgate some regulations, but there's

24 a number of regulations that are actually in the  
25 pipeline that relates to some of the charting and

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1 manning requirements that are impacting NOAA and  
2 their ability to go to IMO and advocate really  
3 dramatically for certain standards and  
4 requirements. And that's because they're sitting  
5 in the Department of Homeland Security. And I can  
6 say this comfortably because I was with Admiral  
7 Allen the weekend before last where he was clearly  
8 succinctly saying we have 90 regulations sitting at  
9 DHS and can't them out of that black hole.

10 And a lot of things have to do with that  
11 things that do impact NOAA and impact navigation  
12 safety. So in terms of trying to have some impact,  
13 I think this committee, if you need to know -- you  
14 need to know, Admiral, you said, we should know  
15 what's going on, and it may be that to the extent  
16 Steve and company are comfortable, 'cause I know  
17 they're -- I hear a sense of frustration for some  
18 of the things that they're waiting on and feel that  
19 they would have a better leg up if they go to IMO  
20 and talk about it if the rules were actually  
21 published. Obviously, not every one of them  
22 impacts all of you here, but that's another one of  
23 those issues of black hole and perhaps you need to  
24 know.

25 CHAIRMAN SKINNER: Elaine?



1           MS. DICKINSON: On the issue of expanding an  
2           AIS requirement to all boats, it's actually been  
3           under discussion for sometime and the Coast Guard  
4           had launched sort of an initiative, I guess,  
5           they're calling it the small boat threat and  
6           Admiral Allen has had stakeholder meetings and all  
7           kinds of things. And one of things they were  
8           actually looking at and putting out on the table  
9           was requiring every single boat, no matter how  
10          small, to have a tracking device, such as AIS. And  
11          so we actually have used the exact same argument  
12          that you did, Admiral; that the massive amount of  
13          things popping up on a screen would just look like  
14          a swarm of gnats, that it would be very, very hard  
15          for the Coast Guard to process all of that  
16          information in it. Yeah, it's just way too much  
17          information, plus the fact that there are AIS class  
18          B units that were just published in all the boat  
19          equipment catalogs and they're still \$900. They're  
20          actually advertising them even prior to FCC  
21          approval because the products are there, they're  
22          ready to go, they're ready to be sold.

23                 I think that with the FCC it's just a matter  
24                 of maritime not being a real high priority for  
25                 them. We have run into this many times before, but

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1 we definitely do -- no one wants in recreational  
2 boating an across-the-board requirement for AIS,  
3 it's just too expensive, and it's not going to  
4 really accomplish anything.

5 ADMIRAL WEST: For Homeland Security, you  
6 would like to have an AIS system, everything that's  
7 out there, everything. And if you manage that data  
8 on shore, you can handle it because you want to  
9 know security, who's there, what's moving and you  
10 for the all sorts of computers to crunch it all,  
11 you can flip them off and follow them and all that  
12 stuff.

13 But when you have that type of situation in a  
14 real world, close quarters,  
15 which-way-are-you-going-buddy type of thing, it's  
16 not really effective and I think there's going to  
17 be a little bit of problem between Homeland  
18 Security identifying everything that's afloat out  
19 there as opposed to safe passage to congested  
20 areas, for example, so...

21 CHAIRMAN SKINNER: Can we flag this issue for  
22 further discussion? I think --

23 ADMIRAL WEST: Does that mean shut up? Did  
24 you just tell me to shut up, Tom?

25 CHAIRMAN SKINNER: I would never do that, but

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1 moving along...

2           Thanks, Chuck, once again. And thanks for  
3 everyone's contributions on kind of flushing this  
4 issue out.

5           Jeff Andrews is Vice President of Coastal  
6 Planning and Engineering. Thanks for your  
7 patience.

8           JEFFREY ANDREWS: All right. Thank you. I  
9 will try and make this short, in honor of time. I  
10 was suggested to come here by Tom Waters from DNR,  
11 and because of some of the efforts we do with sand  
12 search investigations using hydrographic data, and  
13 also with -- we do a lot of surveying for beach  
14 profile for erosion studies. And our company's  
15 done over 60 beach restoration projects which are  
16 related to sand searches from Texas all the way up  
17 to Massachusetts.

18           So the goal that we're looking for: Sand, is  
19 to find the best there is of sand resource and to  
20 protect a sense of resources. It's critical to  
21 have accurate and timely data. And the preliminary  
22 research involves locating past data sets, and  
23 that's -- typically, we start with NOAA data and we  
24 need to minimize the duplication of efforts. One  
25 of the first places we go is to the NOAA site.

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1           There's a lot of bathymetric data out there, and  
2 it's a great resource.

3           There's also a resource that the Department of  
4 Florida Natural Resources has developed. It's

5        called the Ross database. And within that Ross  
6        database we have bathymetric data. We also have,  
7        by the way, cores and seismic data, and so forth.  
8        This is an example of the bathymetric data that we  
9        have taken it and contoured it and put it into pill  
10       shade, and this is just an example of this.

11           And one of the things, like I say, the first  
12        thing you do is find out where the sand resources  
13        might be, and you can see the sand ridges on that  
14        particular map there. Now, what we do, you have  
15        the navigation chart, we got the data that was used  
16        to produce that navigation chart and we contoured,  
17        of course, that's kind of hard to use. We did the  
18        bathymetry of pill shading and this is what's in  
19        the Ross database.

20           But you can take it a step further and  
21        actually color shade or leave it in and the things  
22        start to pop out of that database, that's the NOAA  
23        data from navigation chart that's been reprocessed.  
24        And then we go through and we put on where the bar  
25        codes and where the core are and seismic and we

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1        identify sand resources again. We tried to find a  
2        resource that's close enough and some cases whiter  
3        sand is better than courser material, so there's a  
4        lot of information in that material, in that.

5           This is a project we're now working on in Long  
6        Boat and, you can see where the identified ridges  
7        just by going to the NOAA data and putting all the

8 historical cores and sand sources. So we have the  
9 target that we're going to look at for that  
10 project.

11 Now what's also part of the Ross database, we  
12 went through and put again the bathymetric data  
13 onto a chart and mapped it, and we identified all  
14 the transverse ridges, the sand flats, the waves,  
15 banks. And Dr. Fink from our office has gone  
16 through and characterized each one of these and  
17 he's put a volume on that material. So we're  
18 trying -- the resources, sand is very limited in  
19 Florida and many places also. So part of the Ross  
20 database was trying to find out what volume of  
21 material's out there. Again, the NOAA data was  
22 very useful with that.

23 We also again take that data, and we have to  
24 worry about where the resources are. And in this  
25 particular case, this is a GIS that we did for

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1 Broward County and the background there you can see  
2 is actually airborne LIDAR data that's done by  
3 Tenex Labs, and we've gone out and the biologists  
4 have mapped where all the sea turtles are. I will  
5 come back to that in a minute. This is the  
6 bathymetric data and in that web site they've  
7 actually taken that and you can drop it into  
8 Google. This becomes very useful for resource  
9 managers and ourselves to go find, you know, where  
10 there's -- what's out there. Again, we're

11 interested in these areas away from the part.

12 This is that map from -- the flash map and you  
13 can see the resources, the reefs have been mapped.

14 Nova University went out and actually did video of  
15 the hard bottom areas, so there's videos in there.

16 This is on that USGS site.

17 This is an area off of Martin County, and I  
18 kind of showed that because you're in Dade County.  
19 Dade County is running out of sand. And these  
20 ridges here were some of the ridges that  
21 Dade County wanted to go up and get sand from, but  
22 there was quite a battle of taking sand from Martin  
23 County and bringing it down. Martin County did not  
24 want them to take that. It was one of the most  
25 contentious meetings I ever been to. There are

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1 some nice sand sources, but it pops out of the  
2 data, it's nice to see.

3 Tom also wanted me to talk about a project  
4 that he's got a proposal for from Dr. Shrestha.  
5 It's airborne gravity measurements, this is the lay  
6 out that they want to do, it's every five miles  
7 across, 20 miles up and down the state, but this  
8 cost is 1.8 million dollars and Tom was interested  
9 and getting funding any way he can, so he wanted to  
10 throw it your way, so...

11 But to get that one centimeter of geoid is  
12 critical. We do the studies on each island, the  
13 erosion studies, and there's times when we cross

14 from an inlet, we will get on the other side and  
15 the geoids is all matched because they were brought  
16 into each island, but it's not really up and down  
17 the coast.

18 One of the other things that Tom wanted to  
19 mention, when we go out and elect to do our sand  
20 search investigation, this is a magnetometer. It  
21 collects up to 0.2 gram mass. And we use it to  
22 find objects on the seafloor that are culture  
23 resources. And the state requires that -- the  
24 requirement of resources requires that we actually  
25 take this and use it whenever we do a sand

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1 investigation because they don't want us to take  
2 any fiber cores anywhere near a culture resource.  
3 And it's just one of the big pieces that we pull  
4 behind the boats and we have seismic and seismic  
5 scanometer.

6 But in the case of -- recently, in Florida, we  
7 did a 600 miles of track line looking at those  
8 ridges off the coast, out -- this is the three-mile  
9 limit right here. You can see the lines that were  
10 run and that data was collected and Tom's  
11 interested in wondering if that's a set of data  
12 that you might be interested in.

13 And the reason we need to take the geoid  
14 offshore is that recently the state has gotten to  
15 where they don't want us to dig to -- they wanted  
16 to leave a buffer above the sediment that they

17 collect. So we go out and do a bar area, we'll  
18 take cores and do seismic. And the volumes that --  
19 we used to go after 20 foot holes. They don't  
20 exist anymore. We're going after 10 foot ridges  
21 and we don't -- and they're limited by rock on the  
22 bottom basically, you're trying to do dredging at a  
23 level that's really not practical. But it's -- we  
24 have to map it so that they can try to do it as  
25 close as possible with the buffers.

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1 And what we're doing is using RTK to do even  
2 the seismic, not only the cores, but the seismic.  
3 And when we design a bar area, if we cut too deep,  
4 we're going to put that material on the beach, be  
5 it rock or sediment. So the geoid needs to be  
6 pushed offshore because on the East Coast it's  
7 three miles offshore. On the Gulf, it's as much as  
8 nine miles offshore, so it kind of gets scary when  
9 you start getting that accurate and it's outside  
10 the limit of the geoid model. And that's it.  
11 Thank you.

12 CHAIRMAN SKINNER: Thanks very much.  
13 Questions and comments?

14 MR. ZILKOSKI: Yeah, I will make one comment.  
15 The one with Ramesh is done with Florida with the  
16 airborne group. It's the same kind of concept that  
17 we're trying to work with them and do it for the  
18 rest of the nation, what he's trying to do there.  
19 I don't know about his cost or anything, but it is



20 an expensive program.

21 But I am following up and, Jeff, we'll talk

22 because part of why we're flying -- really the

23 coast is our primary concern right now, because we

24 have lack of information 50 miles from the

25 shoreline inward and 50 miles from the shoreline

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1 outward of gravity information, and that's exactly

2 what -- where you are in some of the places

3 collecting other information, so that could be

4 helpful to us in doing our national gravity

5 program.

6 JEFFREY ANDREWS: Good. Thank you.

7 CHAIRMAN SKINNER: Any other questions?

8 Thanks very much, Jeff. I just want to take a

9 minute, I had a note here that Captain Andrew

10 Melick from the Port Everglades Pilot Association's

11 is here. Biscayne? Okay.

12 ANDREW MELICK: Biscayne.

13 CHAIRMAN SKINNER: Obviously, I need some

14 updates to my charts... so, welcome. I didn't know

15 if you want to make any comments or --

16 ANDREW MELICK: No. I was going to support

17 what Becky said about the Port of Miami, you know,

18 her comments about the large ships.

19 MS. DENTLER: If you need to speak, you need

20 to come up here.

21 ANDREW MELICK: I'm Andrew Melick. I'm a

22 harbor pilot at the Port of Miami, and I would just

23 follow-up on what Becky talked about. The approach  
24 to the port -- and I'm sure this is a situation in  
25 many other ports as ships are getting bigger,

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1 especially from commercial ships -- the ships, you  
2 know, they need to have a longer approach to a  
3 port. This is a -- it's a problem in Miami and  
4 Port Everglades and other ports that are relatively  
5 close to deep water.

6 These large ships need maneuvering space and a  
7 lot of the -- currently the harbor chart at Miami  
8 does not specifically make a recommendation to  
9 mariners of deep transport vessels to stay a  
10 greater distance away from the sea buoy and the sea  
11 buoy, it's designated and it is a fair-water buoy,  
12 implying that a ship can approach from any  
13 direction and be safe at that buoy.

14 But that's really not the case. A large ship  
15 has to approach the Miami sea buoy anyway from a  
16 certain direction and from a certain side and  
17 that's not always indicated on the charts. Now,  
18 that kind of information is passed on to the  
19 mariners by the pilots or whatever, harbor master  
20 facility is working at a port. In Miami, there is  
21 no designated harbor master. The pilots serve that  
22 role. But when we communicate with ships before  
23 they arrive, we tell them, you know, stay away,  
24 don't approach more than one or two miles to the  
25 sea buoy. We'll board you out there.

1           But sometimes that communication doesn't  
2           always happen and there have been plenty of  
3           incidents where, you know, there have been risky  
4           situations where ships have gotten too close and  
5           the pilot gets to the bridge and he has to make an  
6           immediate decision whether he can make it or not.  
7           And, if not, you know, then he has to make the  
8           secondary decision what -- you know, what's my  
9           alternatives here to avoid running aground.

10           So, you know, just that kind of information  
11           would be very helpful on instructions to mariners  
12           to know and ship captains know that they need to  
13           stay away.

14           CAPTAIN BARNUM: I had one comment. Steve  
15           Barnum. That sounds like some great information to  
16           be incorporated into the Coast Pilot, that kind of  
17           the information of how ships should approach the  
18           buoy and how to shape up contact. But we would be  
19           glad to capture that information, whatever you  
20           would like to see incorporated in the Coast Pilot.

21           ANDREW MELICK: Sure. In the Coast Pilot, but  
22           even more critically, I think that's the kind of  
23           thing that's - I think should be on the chart, the  
24           harbor chart.

25           CAPTAIN BARNUM: Sure. We'd have to discuss

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1           how you would portray that type of information.

2           CHAIRMAN SKINNER:  Ed, and then Sherri.

3           MR. WELCH:  Is this fundamentally a chart  
4           problem or does the sea buoy need to be relocated  
5           further out, or are there other implications to  
6           doing that that I'm not aware of?

7           CAPTAIN HICKMAN:  That's what I was going to  
8           address.  If you want the sea buoy moved out, then  
9           you have to be willing to board every vessel  
10          further out, not just the --

11          ANDREW MELICK:  Well, not necessarily.

12          CAPTAIN HICKMAN:  Well, where do you want the  
13          mariner to meet you?  Are you going to tell them  
14          come in a mile from the sea buoy now?

15          ANDREW MELICK:  Depends on the ship.  There's  
16          a lot of ships we board inside the buoy, and that's  
17          not a problem with smaller ships, and it's -- you  
18          know, because we're getting more, higher ratio of  
19          bigger ships, like every port, those are what we're  
20          concerned with, you know.  So the information we  
21          want to convey is that if you are a large, deep  
22          craft ship, this applies to you.

23          CAPTAIN HICKMAN:  I don't think that's going  
24          to work, but I'll talk to you outside the panel,  
25          but --

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1           ANDREW MELICK: Yeah, as far as relocating the  
2           sea buoy, that's -- that is a whole another issue,  
3           and there is a lot of practicality to that and in  
4           Miami it gets deeper quickly, and you can't put a  
5           buoy that much further out.

6           CAPTAIN HICKMAN: I guess my big blaring  
7           question here would be is the captain not looking  
8           at the chart when he's making his approach.

9           ANDREW MELICK: Well, hopefully, he is, but  
10          there's some captains that don't.

11          CAPTAIN HICKMAN: Because the chart has the  
12          depths on it before he gets to the sea buoy.

13          ANDREW MELICK: Oh, absolutely.

14          CHAIRMAN SKINNER: Sherri, can I ask you to  
15          turn on your speaker?

16          CAPTAIN HICKMAN: I'm done.

17          CHAIRMAN SKINNER: Yes, Gary?

18          DR. JEFFRESS: Do you guys have problems with  
19          long-shore currents coming into Miami?

20          ANDREW MELICK: Yes. We have the gulfstream  
21          running very close to the shore.

22          DR. JEFFRESS: You need to see Mike about  
23          getting a port system then.

24          CHAIRMAN SKINNER: Anything else?

25          DON VENTURA: Andrew, Don Ventura from Fugro

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1           Pelagos.

2           MS. DENTLER: Come forward and state your name  
3           again.

4 DON VENTURA: Don Ventura. I work for Fugro  
 5 Pelagos, Incorporated. I just wondered is that the  
 6 buoy situation that you're discussing doesn't  
 7 merit -- if you can't move the buoy, cannot the  
 8 designation of the buoy change? It's clearly not a  
 9 safe water buoy for a number of important ships;  
 10 therefore, should it not be at least cardinal mark,  
 11 for example, indicating on the chart very clearly  
 12 that shipping that has to approach the port has to  
 13 bear in mind that it can't go west with the buoy  
 14 because they're getting into  
 15 navigationally-constrained waters?

16 ANDREW MELICK: That's a good point. Yes,  
 17 that's one of the -- I talked to Becky about this  
 18 earlier, that was one of the points I was making;  
 19 for a lot of slips, it's really not a safe water  
 20 buoy.

21 CHUCK HUSICK: May I make a comment, please?

22 CHAIRMAN SKINNER: We got to sort of wrap this  
 23 up because we're already a half hour behind  
 24 schedule, very brief.

25 CHUCK HUSICK: I will be very brief, very

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1 brief. Why are we worrying about the damn buoy?  
 2 We navigate commercial aircraft carrying 300 people  
 3 to wake points designated by lat line. Every last  
 4 vessel is required to have GNS's, correct? Why not  
 5 just tell them what wake point to go to?

6 CHAIRMAN SKINNER: That's it. We're going to

7 break for lunch. We will come back -- my phone has  
8 died, my watch is elsewhere, I have no idea what  
9 time it is. It's one o'clock, so let's try and get  
10 back here at 2:00 and we will try and shorten up  
11 some of the things on the afternoon schedule.

12 Thank you very much.

13 (Thereupon, a luncheon recess was taken from  
14 1:04 p.m. to 2:00 p.m.)

15 CHAIRMAN SKINNER: Reconvene the panel. Just  
16 to sort of go through the afternoon agenda, Bruce  
17 Vogt is going to give us an update on legislative  
18 issues; followed by an update on height  
19 modernization by Gary and Matt.

20 It will then be our second public comment  
21 period and a break, and then we'll come back to  
22 talk about IOOS and wrap up with our final public  
23 comment period.

24 So with that, Bruce, if you're ready -- oh,  
25 I'm sorry, Bruce, I keep forgetting, this is the

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1 third time I've forgotten.

2 Elaine wanted to just raise an issue put  
3 before the Panel's consideration, maybe we can talk  
4 more about it at tomorrow's strategy meeting.

5 MS. DICKINSON: This is just in follow-up to  
6 our discussion about the most-wanted report. And I  
7 just wanted to mention to you all that I had an  
8 interesting point raised that we may have sort of  
9 all missed it, has to do with paper charts and

10 print-on-demand charts. And all the focus on  
11 electronics we often forget about, you know, I  
12 think we all agree we covered everything we pretty  
13 much could in the report.

14 And I got a call from a guy named Dave Dupree.  
15 He's the president of Oceanographics. He's the  
16 NOAA partner who produces print-on-demand charts up  
17 in Minnesota. I think he's the only one who's out  
18 there marketing them. And he was just a little  
19 disappointed, I guess, that nowhere in our report  
20 did we mention his product; which is, you know, and  
21 I thought about it, and I said, you know, you're  
22 right because those are really innovative charts,  
23 you know, he's got a pretty much state-of-the-art  
24 system where the minute somebody places an order  
25 the charts are updated with all of the latest

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1 corrections and printed out and shipped to the  
2 customer, and it really is a great service.

3 And his problem and a lot of his frustration  
4 is he feels that nobody really knows about  
5 oceanographic charts that much. I think he has  
6 limited abilities to do marketing. He's trying to  
7 find ways to reach the public with this product and  
8 I wrote a story about it and he finally agreed to  
9 do advertising.

10 MR. ARMSTRONG: I saw the ad. It's a good ad,  
11 by the way.

12 MS. DICKINSON: Well, we put a mention of



13 those charts on an e-mail blast that goes out  
 14 routinely to Boat U.S. members. There's 300 e-mail  
 15 addresses on it. And it had like ten other items  
 16 on that e-mail. And the number one site for hits,  
 17 for click-throughs after that went out was  
 18 Oceanographic. So it was kind of like, you know,  
 19 just really went over quite well and people are  
 20 finally starting to find out about these charts.

21 But I just wanted to bring that up because,  
 22 you know, the print-on-demand is another way that  
 23 the technology is really getting the product and  
 24 the chart updates out there to people. And  
 25 hopefully there will always be paper charts. There

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1 are boaters who are never going use anything else,  
 2 quite frankly, so we really got to have them. And  
 3 this is the best thing out there, so that's all I  
 4 have to say.

5 CHAIRMAN SKINNER: Raise it tomorrow and see  
 6 how the panel wants to proceed.

7 Sorry about that, Bruce.

8 BRUCE VOGT: No problem. I'm Bruce Vogt. I'm  
 9 with the National Oceanic and Atmospheric Service.  
 10 I'm filling in for Glenn Boledovich. He's actually  
 11 my boss. He was supposed to be here today but he's  
 12 been ill for the past week and wanted me to  
 13 apologize to everyone that he wasn't able to be  
 14 here. And he said to say hello, passed on his  
 15 regards.

16 I'm here to talk -- give you a little bit of  
17 an update on a couple pieces of legislation that  
18 we've been tracking and, in particular, have been  
19 briefing this panel on for over a year now. That  
20 is the Hydrographic Services Improvement Act, the  
21 integrated ocean and coastal observation  
22 legislation, and also integrated ocean and coastal  
23 mapping legislation.

24 Now, I think we'll -- I'll probably be able to  
25 speed this us up a little bit on the agenda here

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1 because there hasn't been a whole lot of action on  
2 these bills. I think earlier Jack mentioned that  
3 NOAA has initiative or some money in the O & M  
4 budget to pit a chart trying to increase our  
5 efficiency of getting data off the charts and see  
6 if maybe congress can start an initiative like  
7 build a law, something like that, to increase their  
8 efficiencies, but -- no, just kidding.

9 CHAIRMAN SKINNER: Bruce, is your microphone  
10 on? I guess it is. That's better if you can use  
11 that.

12 BRUCE VOGT: I know. Sometimes people have a  
13 problem with my voice. It's a little deep and it's  
14 hard to understand at times. I apologize for that.

15 CAPTAIN BARNUM: It will raise up, try it.

16 BRUCE VOGT: So first I want to talk about  
17 Hydrographic Services Improvement Act. NOAA  
18 actually drafted a bill, an authorization bill and

19 transmitted to congress last year. Congress picked  
20 that up, looked at it. The Senate actually  
21 introduced a version of our bill word-for-word.  
22 The bill's introduced our own version which made a  
23 few changes, in particular, to contracts language  
24 requiring NOAA to use Brooks Act for contracting  
25 hydrographic data. There hasn't been a lot of

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1 progress on this bill in the Senate since it was  
2 introduced, but there has been some activity in the  
3 House. Jack Dunnigan had actually testified on  
4 this bill back in October.

5 Following that, in February, just recently,  
6 February the 13th, the House held a markup in the  
7 House Natural Resources Subcommittee. That bill  
8 after markup was sent to the full committee. There  
9 are only some minor changes, nothing really that  
10 affects the bill overall.

11 But I did hear just recently that the full  
12 committee has tentatively scheduled markup for the  
13 Hydrographic Services and Improvement Act for next  
14 week sometime, I was told March 13th, but that's  
15 tentative. This bill is pretty noncontroversial.  
16 So I think that this -- we're hoping, from  
17 everything we're hearing, that this bill should  
18 move through both chambers this session in the  
19 110th Congress, we're hoping. Yeah, that's all  
20 contingent upon what happens with the election  
21 season, and if things kind of get lost in that

22 process and a lot of legislation's pending, it  
23 doesn't make its way through.

24 The only thing that's different really between  
25 the House and the Senate bill is that the House

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1 bill does authorize 75 million dollars for a new  
2 hydrographic vessel or demo. That doesn't mean --  
3 that's just an authorization. That doesn't mean  
4 that we're getting 75 million for a vessel. That's  
5 the only major difference.

6 Now, one of -- a big change, though, to both  
7 bills that came from the administration version is  
8 that there's a little more authority there now for  
9 NOAA to receive or get mission assignments or  
10 funding from other agencies, in particular the  
11 Coast Guard and FEMA, following natural disasters  
12 or even homeland -- or for homeland security  
13 issues. So that's something that we pursued pretty  
14 hard following Katrina, where we felt that that  
15 process could be more efficient, not just for  
16 hydrographic surveys, but for some of the  
17 geospatial services that Dave Zilkowski and  
18 National Geodetic Surveys provided.

19 The next bill I'll talk about is the  
20 Integrated Ocean and Coastal Observation  
21 legislature. You got a question?

22 ADMIRAL WEST: Quick question before you leave  
23 the HSI. Under the Senate version, it says,  
24 changes to the Hydrographic Services Review Panel

25 to update the current status of the panel. What

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1 does that mean?

2 BRUCE VOGT: I'm sorry, which were you --

3 ADMIRAL WEST: The Senate version is: Changes  
4 to the Hydrographic Services Review Panel -- which  
5 is us -- to update the current status of the panel.  
6 What does that mean?

7 BRUCE VOGT: There's some changes in the  
8 legislation, the administration bill that just  
9 talked about compensation for the panel. There was  
10 some old language in there about comps to the panel  
11 and now. The compensation is for travel expenses.  
12 The costs incurred while you're doing the duties of  
13 the panel, that's really the changes I was  
14 referring to. There's nothing in there that  
15 changes anything within the panel. There was some  
16 language that extended potentially the people that  
17 could be on the panel, because the panel's pretty  
18 diverse right now, and I think there was an attempt  
19 to just codify some of the other people that serve  
20 on this panel; like Tom, coming from where the  
21 coastal management background. There was an  
22 attempt to broaden the language a little bit there.

23 ADMIRAL WEST: I must have slept through that  
24 briefing to the panel, but there was changes  
25 submitted, so maybe sometime tomorrow somebody

1       could tell me what's been submitted and what  
2       changes our panel from the first time I signed up?  
3       Can we do that? I mean, is this -- this follows  
4       the administration's submissions?

5               BRUCE VOGT: Right. Yes.

6               ADMIRAL WEST: The senate's that --

7               BRUCE VOGT: The broader language was  
8       something that was actually introduced -- in terms  
9       of the members on the panel was something that  
10      didn't come from us. It was actually -- that the  
11      House had asked if we could include. But the  
12      changes to the compensation issues and things like  
13      that was from the administration version.

14              ADMIRAL WEST: Does everybody remember all  
15      that?

16              CAPTAIN HICKMAN: No, no.

17              ADMIRAL WEST: I think NOAA owes us -- owes  
18      the backup panel here some explanation about what's  
19      going on with what we all signed up to be and what  
20      you're saying congress is going to tell us to be in  
21      the future; is that fair?

22              BRUCE VOGT: Sure. We can do that tomorrow.  
23      I don't think there are any major changes to the  
24      function of the panel or anything.

25              ADMIRAL WEST: Well, the compensation is an

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1 issue for me. I have a personal hangup over  
 2 that --  
 3 BRUCE VOGT: Sure.  
 4 ADMIRAL WEST: -- for historical reasons.  
 5 But, so, I mean, that's kind of the first time I  
 6 seen it and --  
 7 BRUCE VOGT: Okay.  
 8 ADMIRAL WEST: Unless -- did I miss something?  
 9 CAPTAIN MYRTIDIS: I think we all missed  
 10 something.  
 11 ADMIRAL WEST: Oh, okay.  
 12 CAPTAIN HICKMAN: We all missed it.  
 13 MR. ARMSTRONG: Barbara, did --  
 14 MS. HESS: That was the draft from the last  
 15 notebook, I thought that one was --  
 16 MR. ARMSTRONG: I thought everyone got copies  
 17 of the drafts that went forward.  
 18 MS. HESS: That was one of the drafts in the  
 19 last notebooks. I don't have it with me, but I can  
 20 try and see if I can get a copy. But I think that  
 21 was included on your package in one of the past  
 22 meetings, the changes.  
 23 ADMIRAL WEST: Also, what was in there was  
 24 what the administration submitted, correct? Is  
 25 that what we were given?

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1 MS. HESS: I don't believe so.  
 2 BRUCE VOGT: I believe, I'm not sure which



3 meeting it was, but we did circulate the drafts  
4 that the administration put together. In fact, I  
5 think we included the entire transmittal package  
6 that we sent to congress, so a section-by-section  
7 analysis, our draft language and how the bill would  
8 look within the facts.

9 ADMIRAL WEST: Then I missed that. If we can  
10 spend a couple minutes, we don't need to do it now.  
11 I think the panel should know exactly what the  
12 administration submitted and what appears to be  
13 both in the Senate and House version.

14 MR. WELCH: Do we have here somebody with a  
15 copy of the present law, as far as applied to the  
16 panel?

*always find  
have it  
of law*

17 BRUCE VOGT: I don't have a copy with me.

18 MR. WELCH: Okay. We can take a look at that,  
19 it will be a little easy for people to see what the  
20 effect of the proposed amendment would be.

21 BRUCE VOGT: Sure. We can do that.

22 MR. McBRIDE: If I may. I'm not sure if I  
23 understand this.

24 CHAIRMAN SKINNER: Sure, Adam.

25 MR. McBRIDE: We're currently compensated,

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1 those of us who accepted as special government  
2 employees at a daily rate, plus our travel  
3 expenses. Does this adjustment remove that  
4 compensation, is that the intent?

5 ADMIRAL WEST: Yes, yes.



6 MR. McBRIDE: Well, I didn't hear about that  
7 either. I would like to hear more about that.

8 CHAIRMAN SKINNER: I believe at one of the  
9 briefs there was a discussion that this was an  
10 issue, but I heard that -- I don't think that we've  
11 had -- that the issue of compensation was an issue  
12 for someone, but I think I agree, that going  
13 through all the changes would be very helpful.

14 BRUCE VOGT: Sure. So moving onto the  
15 Integrated issue on Ocean Observing System  
16 legislation. There's a bill again in both the  
17 House and the Senate, again, there's been a lot  
18 more movement in the House than there has been in  
19 the Senate. In fact, also on February 13th, the  
20 House version of the Integrated issue in the  
21 Coastal Observing was there was a markup in the  
22 subsources subcommittee and that bill had a few  
23 minor amendments and then was reported to the full  
24 committee.

25 And the full committee plans on holding a

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1 markup for this bill on March 13th as well, along  
2 with the Hydrographic Services Improvement Act. In  
3 fact, some of what we heard is that they're  
4 planning on possibly packaging the Integrated  
5 Oceans Observing System legislation with  
6 Hydrographic Services Improvement Act. They're  
7 trying to move things through as a package,  
8 potentially including the Integrated Ocean and

9 Coastal Mapping legislation with that package, too.

10 I guess I will -- since, I'm not sure what has

11 been covered in the past now, then NOAA -- let me

12 backup. The bill that's going through the House

13 right now for the IOOS bill was actually part of a

14 climate bill last year. And that climate bill

15 passed the full committee in the House, the Natural

16 Resources Committee. And so the thinking is that

17 now that this is being moved through as its own

18 stand-alone bill, and the fact that it's already

19 passed the Natural Resources Committee means that

20 this should move through pretty easily. The House,

21 at least the people I talked to -- that they feel

22 pretty confident they can get this passed this

23 session.

24 That then raises some issues with the Senate

25 because the House legislation is different from the

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1 Senate bill; not too different, but different in

2 enough ways that there would be some negotiation

3 required between the Senate and the House on this.

4 But, you know, again the House feels pretty

5 confident they can negotiate those differences with

6 the Senate and move this through.

7 Now, for the Senate version, there are a few

8 more obstacles on the way. This is Pago policy,

9 that the authorization appropriations in the Senate

10 bill has caused the Senate bill to be put on hold,

11 and I'm not sure -- we don't have a lot of

12 information about where that's going. That's  
13 another issue that's going to have to be worked  
14 out. But we haven't heard anything new on that.  
15 We just know that it's been put on hold.

16 So the last one is the Integrated Ocean and  
17 Coastal Mapping legislation. The House passed the  
18 version pretty quickly last year in July. We  
19 testified in June and then the House passed the  
20 bill in July. The Senate has taken up the bill  
21 that the House passed. There really weren't that  
22 many differences between theirs and the House bill  
23 and the Senate bill before it passed, but the  
24 Senate has taken up the House bill and they're  
25 currently redrafting that bill in negotiating some

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1 things with the House, but there's some internal  
2 debates in the Senate.

3 The Senate Commerce Committee was very happy  
4 with the piece of legislation or the bill that the  
5 House had passed, but there were some issues in the  
6 energy and Natural Resources Committee of the  
7 senate regarding who should be the lead for the  
8 Federal agency to carry out the act.

9 It was drafted and the version that passed the  
10 House put NOAA in the lead, had NOAA developing the  
11 program, Integrated Ocean and Coastal Mapping  
12 Program within NOAA, and as the chair of an  
13 interagency committee to handle Integrated Coastal  
14 Mapping issues and the Energy and Natural Resources

15 Committee in the Senate felt that we're -- or felt  
16 that that was in conflict with the Energy Act of  
17 2005 that was passed, because the Department of  
18 Interior, in particular, had some pretty strong  
19 mandates in that Energy Act and they felt those  
20 possibly conflicted with the issues in the  
21 Integrated Coastal Mapping Act. So for those  
22 reasons this bill's being held up in the Senate.

23 But, as I said, you know, there are --  
24 everyone's pretty hopeful that these three bills  
25 are going to move in some way, and possibly as one

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1 package, because there all related in some aspects.  
2 So that's pretty much it for my update. If you  
3 have any questions, let me know.

4 CHAIRMAN SKINNER: Thanks, Bruce. Questions?  
5 Comments? Elaine?

6 MS. DICKINSON: The NOAA Organic Act, what  
7 happened to that?

8 BRUCE VOGT: There hasn't been any progress on  
9 the NOAA Organic Act.

10 ADMIRAL WEST: It's not going to happen this  
11 time.

12 CHAIRMAN SKINNER: Other questions?

13 MR. WELCH: Tom, Ed Welch. On the IOOS  
14 legislation, if folks will recall back in the fall  
15 there was some interest on the part of the panel  
16 that -- to make sure that the regional panels had  
17 some kind of a feedback from actual users as to

18 their products. There was a letter that was  
19 drafted, there's meetings that were held, and I  
20 think folks got a fairly satisfactory assurance  
21 from the folks with the regional panels that they  
22 were taking steps to incorporate consultation with  
23 actual private sector users. But if we wanted to,  
24 if you look on page 36, again, on page 35 of the  
25 Senate draft bill here, S950, they have a

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1 subsection on what the regional associations are  
2 supposed to do and how they're supposed to go about  
3 their business, and it wouldn't be very hard to  
4 draft up a little phrase that talked about  
5 consulting with users and ask members of congress  
6 to put that in there. And then you'd have a  
7 statutory expectation as opposed to exchange of  
8 letters, so I don't know whether that would be of  
9 any interest to people or not?

10 CHAIRMAN SKINNER: Well, that's certainly  
11 something that I've been supporting, so to the  
12 extent that we can, I would definitely support that  
13 type of change. I think probably also want to hear  
14 if that -- what impact that would have, if any, and  
15 maybe somebody can fill us in later today on the  
16 IOOS update.

17 ZDENKS WILLIS: Yes.

18 BRUCE VOGT: The only thing I would say is I  
19 think NOAA has looked through this language very  
20 carefully and we felt that the freedom is there for

21 us to developing any sort of advisory panel and, in  
 22 working with the regional associations, to acquire,  
 23 if not make it part of our agreement, contract,  
 24 whatever you want to call it, with the regional  
 25 associations, however that turns out, to include

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1 all sectors.

2 CHAIRMAN SKINNER: I'm jumping ahead because  
 3 this is -- this will be covered in the IOOS  
 4 presentation, but there was a pretty positive  
 5 response from the IOOS folks, so... other  
 6 questions? That's it? Thanks very much, Bruce.

7 BRUCE VOGT: Thank you.

8 CHAIRMAN SKINNER: And next, Matt and Gary,  
 9 are you all set for your presentation?

10 DR. JEFFRESS: Yes.

11 MR. WELLSLAGER: I think, yes, why don't you?

12 DR. JEFFRESS: Do you want me to start? Do  
 13 you want to bring it up? This is a report on the  
 14 national -- this is a report on the National Height  
 15 Modernization started about ten years in 1988 when  
 16 NGS wrote a report to congress about the sad state  
 17 of elevation data in the United States. My take on  
 18 this, why it's deteriorated, it's basically  
 19 deteriorated because the National Geodetic survey  
 20 back in the 1990's pretty much abandoned  
 21 maintenance of benchmarks across the country.

22 And my guess is, just a wild guess is that  
 23 they were going to rely on GPS to takeover, not

24           only the horizontal location as part of the  
25           National Spatial Reference System, but they thought

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1           that the technology of the GPS and having a program  
2           of gravity observations, we would have a geoid  
3           model by now that would be suitable to using GPS to  
4           establish accurate elevations. And I'm talking  
5           about elevations relative to sea level, which we  
6           call orthometric metric heights.

7           So, back in '98, this report stated that the  
8           existing technology was not good enough to  
9           establish accurate elevations throughout the United  
10          States. And the existing infrastructure, all those  
11          benchmarks that were leveled fairly tediously all  
12          through the 20th century had reached a point where  
13          they're not serving the economic benefits of the  
14          United States and something needed to be done about  
15          it. And so they started this project called  
16          National Height Modernization, which not only helps  
17          us reestablish good elevations throughout the  
18          United States using the latest in technology, at  
19          the terrestrial leveling or using GPS. And it  
20          would kick off with basically funded by earmarks of  
21          various states that have been involved.

22          And the map up there shows the height  
23          modernization states in the pink, interested states  
24          in the light blue, and the green states are not  
25          showing any interest just yet, except this needs to

1       be updated. Illinois, where is that? Somewhere.  
2       Illinois is an earmark to start them off, helping  
3       them out in this year's budget.

4               From my experience, I'm the principal  
5       investigator for height in Texas and Matt is  
6       working with South Carolina; even though we're both  
7       pink states, we both have height mod programs  
8       running right now.

9               Texas got started back in 2005 with an earmark  
10      through one of our senators. We had a second  
11      earmark on the second year and on the third year,  
12      which is the year we're in now, our funding year  
13      we're in now -- which is a year delayed, which was  
14      a continuous resolution year -- the pool of  
15      previous years' earmarks was given to NOAA to fund  
16      a competitive grant process.

17              And, basically, the states that already had  
18      programs put our proposals to continue the work  
19      they're doing in height modernization. It was  
20      published in the Gazette, and so all the other  
21      states had opportunity to compete, but very few  
22      did.

23              And then this year's very much similar, except  
24      this year we've actually got a line item in the  
25      president's budget to fund height modernization.



1 And I believe the Senate put it in as 10 million  
2 dollars, whereas the year before it was nine and a  
3 half million. But the House didn't put any money  
4 in there. And, I don't know, Dave, it's around  
5 about five million now, is that correct?

6 MR. ZILKOSKI: Yes, sir.

7 DR. JEFFRESS: We're all competing to get  
8 height mod funding. That's a very inadequate  
9 budget to cover - to reestablish the elevations  
10 throughout the United States. That's kind of the  
11 history of it.

12 It doesn't seem to be working. (Referring to  
13 slide presentation.) Here you go.

14 Last November, nine of the states got  
15 together and organized a meeting with Admiral  
16 Lautenbacher and we presented this information, you  
17 know, and we thanked him for his report for height  
18 modernization so far and we tried to emphasize how  
19 important it is to each of the states, and we tried  
20 to highlight how height modernization fits in with  
21 the goals of NOAA. So we went through the climate  
22 goal, foreseeable rises, a big deal.

23 This is a tide gauge record for Galveston and  
24 Pleasure Pier, which is the longest tide gauge in  
25 Texas. It shows a substantial increase in sea

1 level, but like Louisiana, Galveston is very much

2 subject to subsidence. And if you go to CO-OPS on  
3 the web site, it says there that Galveston sea  
4 level will rise at the rate at 2.13 feet per  
5 century, as detected by this tide gauge. But  
6 that's the combined net result of both sea level  
7 rise and subsidence.

8 By the way, the scientists at the moment think  
9 that sea level rise globally is about two and a  
10 half millimeters per year. Galveston is sinking at  
11 about six millimeters per year. So it's about a  
12 little bit less than four millimeters so we use in  
13 Galveston. The height mod is one of the programs  
14 that helps the tide sea level rise to elevations on  
15 shore.

16 And so it's one of the ways we can monitor  
17 climate change, okay. Now, height modernization on  
18 elevation does not just affect the coast. The  
19 National Geodetic Survey was responsible for this.  
20 The National Spatial Reference System throughout  
21 the United States, that includes all the noncoastal  
22 states as well, and Texas is a good example of  
23 where elevations are deficient on land and it's  
24 mainly on land adjacent to rivers and streams where  
25 we have riverine plane.

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1 That picture there is of a house there in  
2 Austin in 2001 as a result of a flood. Local  
3 governments have a lot of problems and so do local  
4 surveyors have a lot of problems establishing

5 elevations relative to flood levels because a lot  
6 of benchmarks have disappeared. And as a result of  
7 that, many local governments, because they need  
8 elevations to design subdivisions and roads and  
9 drainage networks have established their own  
10 elevation networks, but of course have not  
11 maintained the sort of standards NOAA insists on  
12 for accurate elevation determination.

13 And so, you find cases like in San Antonio  
14 where we have the city has established their own  
15 elevation network and supposedly tied it into the  
16 National Spatial Reference elevation. We have the  
17 Edwards Aquifer Authority that manages the water in  
18 the Edwards Aquifer, which is primarily  
19 San Antonio's drinking water supply. We have the  
20 San Antonio River Authority that manages flooding  
21 and mitigation of flooding around San Antonio  
22 'cause it's had some very severe floods over the  
23 years, and the county also has its own little  
24 network, and all these four networks do not agree  
25 by a matter of feet.

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1 So it's very difficult for us to say that the  
2 Texas Department of Transportation to build a  
3 highway through San Antonio because you have all  
4 these different elevation data which don't fit.  
5 And it's costing them a lot of money and actually  
6 the cost to sort out this mess before they start  
7 construction.

8 Precision agriculture is also a beneficiary of  
9 height modernization, especially related to  
10 drainage and irrigation systems. So that fits in  
11 with the ecosystem role of NOAA. The weather  
12 service, again, related to flooding, especially  
13 coastal flooding, uses - tries to use updated  
14 elevation data to predict coastal flooding in times  
15 of tropical storm surges. We have ourselves in  
16 Corpus Christi have -- using tide gauge data, along  
17 with meteorological data to better predict water  
18 levels associated with storm surges.

19 In Texas, the tidal charts, the predicted  
20 tides are actually only accurate about 60 percent  
21 of the time because of the meteorological affects  
22 and the coastal hydrology or hydraulics, winds and  
23 barometric pressure have a lot to do with forcing  
24 the water elevations. And so we're trying to  
25 integrate, not only the gravitational predictions

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1 of tides, but also integrating meteorological  
2 affects, and we've buttoned that number up into the  
3 90 percent. And the weather service is actually  
4 using our data now to help predict coastal  
5 flooding. And it's associated with height  
6 modernization as well.

7 And transportation of commerce, of course,  
8 elevations along the coast, integrated with  
9 bathymetric charting and nautical charting. These  
10 are inundation models which height mod is

11 associated with in getting accurate elevations  
12 along the coast. And, of course, we heard what the  
13 problem is in Louisiana. We also have the same  
14 problem in Texas. It seems like the closer we get  
15 to the Louisiana boarder, the more subsidence we  
16 see.

17 MR. McBRIDE: Hey... it's not our fault...

18 DR. JEFFRESS: Down in Corpus Christi, we're  
19 seeing about a foot and a half percent per century  
20 in total increase in water level, and it drops off  
21 about a foot by the time you get to the ground.  
22 But still it's a problem. And a big problem,  
23 actually, for mariners in Texas, it's actually  
24 assisting in getting higher clearances on the  
25 bottom. But then just as the opposite occurs in

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1 Alaska where they're having glacial rebound and the  
2 water level is actually dropping, rather than  
3 increasing. So they have the opposite problem in  
4 maintaining accurate water levels compared to what  
5 the elevations are on shore.

6 And just to bring that home, in Corpus  
7 Christi, for example, there's a lot of coastal  
8 development on Padre Island. This is adjacent to  
9 Corpus Christi. We have development out there and  
10 higher homes being built right by the beach. Padre  
11 Island has, of course, the FEMA flood insurance  
12 maps associated with it, and the magic elevation to  
13 get flood insurance or keep up flood insurance is

14 nine feet, but FEMA doesn't actually specify, nine  
 15 feet above what? One would assume it's nine feet  
 16 above mean sea level, of course, this actually  
 17 comes under the jurisdiction of land surveyors who  
 18 are asked to produce what is called elevation  
 19 certificates for individual properties where they  
 20 establish elevations on the floor levels of  
 21 buildings.

22 And on the basis of that, if the floor level  
 23 is above the nine feet, then the land owner, the  
 24 house owner, can get flood insurance at a  
 25 reasonable rates. If it's below nine feet, then

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1 the rates go up substantially. And actually  
 2 there's some places on Padre Island you cannot get  
 3 flood insurance, they're zoned that way.

4 So surveyors, when they're asked to do this,  
 5 and there's missing benchmarks that disappear, they  
 6 go out and find whatever they can. It's usually --  
 7 it's a city elevation marker they will tie into  
 8 that and assume it's the National Geodetic Vertical  
 9 Datum of 1929, which was adjusted to 26 tide gauges  
 10 around the country. So last year it's nine feet  
 11 above that data.

12 Or you can find NAVD, North American Vertical  
 13 Datum, of 1988 benchmark and tie into that and  
 14 establish a nine-foot elevation. Because the zero  
 15 for that is the main sea level up in Quebec in the  
 16 St. Lawrence Seaway, so FEMA accepts that elevation

17 as well.

18 Or you can check another box which says  
19 "other" and, for example, you can tie into our tide  
20 gauge which has the latest 2001 APOK elevation for  
21 main sea level.

22 But surveyors who tie into our tide gauges  
23 find that the elevations are something like eight  
24 feet. And so those using the up-to-date sea level,  
25 most of the houses on Padre Island, which will be

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1 up to nine feet, now are up to five, but FEMA  
2 doesn't know that yet.

3 This is a summary of the appropriations for  
4 the nation for height mod since 2001. California  
5 and North Carolina got started out initially and,  
6 as you can see, over the last few years, a lot of  
7 states have come on board. There's Texas in 2005.  
8 And we've seen a steady increase in the budgets for  
9 height mod; but we had a pretty disastrous year  
10 this year, so we're trying to deal with that right  
11 now.

12 So why do people want to know what elevations  
13 are and, again, just like I finished talking about  
14 flood insurance. This is the evacuation route as  
15 of about eight years ago from the main road from  
16 Padre Island to Corpus Christi. It's since then  
17 rectified, the Department of Transportation has  
18 raised that causeway up by nine feet, and so -- but  
19 that was what it was back in '98, I believe, and

20           that was a tropical storm, not a hurricane.  
 21           So sea level is rising and, basically, the  
 22           public and the surveying profession is trying to  
 23           help them decide whether they can get flood  
 24           insurance or not. Okay. Again, Austin, 2001;  
 25           Houston, Tropical Storm Allison in 2001, a very

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1           minor one, by the way. This was probably one of  
 2           the most expensive flooding disasters for the  
 3           United States. It was a five billion dollar flood  
 4           bill for that, and I think there was about 20  
 5           people lost their lives. And again, because we  
 6           didn't have enough data and knowledge about  
 7           elevations relative to the drainage systems, et  
 8           cetera. It was a big problem for Houston.

9           The height modernization program is trying to  
 10          capture interest from the states and, for example,  
 11          South Carolina, Matt can talk to us about how their  
 12          state did geodetic survey of this, that is involved  
 13          with height modernization, and we're trying to  
 14          leverage funding both through the states and  
 15          through this program.

16          In Texas we've teamed up with the Texas  
 17          Natural Resources Information System, which is kind  
 18          of like a de facto mapping agency for Texas. And  
 19          they also produce a lot of GIS data for Texas and  
 20          most of the Texas agencies. And they are --  
 21          actually have gone through an exercise funded by  
 22          FEMA as a result of Hurricane Rita to LIDAR map all



23 the coastal counties in Texas. But FEMA is using  
24 outdated benchmarks which is the subject to do that  
25 method.

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1 So, basically, what we've both been doing for  
2 Tenorex, who is orchestrating this mapping, is  
3 stepped up to them and offered to them that we  
4 could do quality control on the control for the  
5 LIDAR mapping before the LIDAR data was observed.  
6 So we're helping them with geodetic control for  
7 elevation for the LIDAR mapping.

8 This program is also encouraging each state to  
9 establish a spatial reference center. And this is  
10 kind of like a branch office, so that's the way I  
11 describe it, as a branch office of National  
12 Geodetic Survey in Texas. South and North Carolina  
13 actually have state agencies that do geodetic  
14 surveys. But Texas was the fourth spatial  
15 reference center established. There's been one  
16 established in Louisiana, and Roy Dokka, who we  
17 talked about in this morning, he is the lead for  
18 that. There's been one established in Washington  
19 state and also one in California.

20 And so, NGS is encourages height mod program  
21 to establish these special reference centers. We  
22 actually got a request from the government to do  
23 this on our campus. And also, since then, the  
24 state legislature has enacted an act to create the  
25 spacial reference center on our campus under the

1 education code. And that just allows the state  
2 agencies to better fund it and it creates a channel  
3 for funding.

4 I'm going to talk about V-datum in a little  
5 bit. Digital elevation models are very popular now  
6 for GIS, and they are also tied to out-of-date  
7 elevation monumentation thought Texas and the  
8 nation. And we also -- we've also partnered this  
9 year with the Corps of Engineers to establish  
10 NAVD-88 elevations on our tide gauges, and they're  
11 funding that as part of their attempts to get  
12 better elevations for their dredging operations in  
13 Texas. Next one. Okay.

14 Now, the problem goes back to the geoid, and I  
15 would like to just highlight some basic geodesy in  
16 leveling and at least I can try to get you guys to  
17 understand this. This is like Geodesy 101. As you  
18 can see, the earth kind of looks like a sphere, but  
19 it's not really. It's actually an ellipsoid of  
20 riverine. The radius of the earth of the equator  
21 is 22 kilometers longer than the radius of the  
22 earth at the pole. It has something to do with the  
23 spinning, okay. So when you're using a  
24 mathematical model to put all the mapping on, what  
25 you geologists do has created this ellipsoid of

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1 revolution which is centered on the center of the  
2 earth and have created an XYZ coordinating system,  
3 where the Z axis comes out the North Pole, the X  
4 axis comes out the equator at the again anyone  
5 Meridian, and the Y axis is perpendicular to both  
6 of those. And that's what the GPS system  
7 coordinate is based on, XYZ coordinate. But keep  
8 in mind, the GPS system is moving as well as the  
9 earth's spinning on its axis. That's where  
10 calculus comes in. We won't go into that.

11 Next one. Okay. So what we have is this  
12 yellow line, which is the ellipsoid of revolution.  
13 You can think of that as the sphere, okay, that's  
14 the mathematical model of how we locate position on  
15 the earth and put it into mapping and can get state  
16 plane coordinates.

17 That approximates topography of the planet.  
18 And that's sea level depicted over here. This is a  
19 topographic surface. Now, if you project sea level  
20 underneath the land surface and you come up with  
21 this bumpy -- and this is mean sea level now -- you  
22 come up with this bumpy surface which deviates from  
23 the mathematical surface by plus and minus about 90  
24 meters. And this is equivalent of sea level. And  
25 this mean surface of sea level, we call that the

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1 geoid, the approximate main sea level geoid. And  
2 that's a equipotential surface where gravity is the  
3 same. It's like mean sea level because the tides  
4 go up and down, gravity actually goes up and down  
5 everyday, too, because of the pull of the sun and  
6 the moon.

7 And the variations here are caused by what are  
8 called gravity anomalies where you have -- if you  
9 have a bulge, there's a large mass close by. And  
10 if you have a dip, there's less mass. And so if I  
11 pour water from a high point to a low point, it's  
12 not the difference in elevation measured in feet  
13 that's causing the water to flow downhill, it's  
14 actually gravity. And gravity is not the same  
15 everywhere along this mathematical surface, because  
16 of mass anomalies between the surface of the earth.

17 Now, if we go and level to this point relative  
18 to mean sea level, we want the yellow -- which is  
19 very difficult to read. That's the orthometric  
20 height, and that's the height you get if you're  
21 leveling from main sea level inland. It's relative  
22 to where this proximate geoid would be at that  
23 location. What GPS gives us is this little "h"  
24 here, this lower case "h". GPS gives us an  
25 elevation above the mathematical surface. It does

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1 not give us an elevation above the geoid or main  
2 sea level. Okay.

3 And that's what we don't know, and, of

4 course -- if you press the next button, the button  
5 again -- this value "N" is called the geoid  
6 ellipsoid's separation, and that's what we want to  
7 try and model with a good geoid model. And if we  
8 have that value in down within a couple  
9 centimeters, then we can establish the true  
10 orthometric height above sea level anywhere in the  
11 country, okay.

12 What we're missing is the gravity data to  
13 produce this nice red surface which is actually a  
14 bumpy surface. We have existing models which are  
15 based on historic gravity data sets that have been  
16 observed at different periods of time, with  
17 different instrumentation and different quality, so  
18 it's not extremely reliable. The GRAV-D initiative  
19 would fix this. And separate to NGS's initiatives  
20 with GRAV-D, which is not funded, we've been  
21 working with the -- in Texas, we have been working  
22 with the Naval Research Lab, which is actually a  
23 key component -- or player in this. They've  
24 developed this airborne gravity technology and have  
25 used it successfully in Iraq and Afghanistan and

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1 now they're doing Pakistan. But they've not done  
2 it in the United States, so we're not likely to fly  
3 any missiles around here any time soon.

4 So the technology is available, we just need  
5 to get funded for the United States, and then we  
6 can use GPS all over the place to get accurate

7 elevations. I might also add, the FAA is very  
8 interested in this, you know, because all aircraft  
9 elevations are relative to sea level, and so that's  
10 one of the reasons why aircraft are not using GPS  
11 right now for navigation and position  
12 determinations, because of this error created by  
13 not knowing where the geoid is.

14 So, traditionally, we have observed elevations  
15 in the past using spirit levels, and this is kind  
16 of like what the set up is, you start at some known  
17 datum. Here's mean sea level and you just do  
18 differential leveling across the countryside, and  
19 that's how the majority of benchmarks are now  
20 disappearing how they were established here in the  
21 United States.

22 Nowadays, we have digital LR levels. That's  
23 this one here. They cost about \$5,000 a piece.  
24 But the rods are also expensive because they're  
25 made out of invar steel and they're encased in

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1 aluminum jackets. And if you're going to do some  
2 of this leveling across the countryside, and  
3 including putting monuments in the ground, it costs  
4 \$2,000 a mile to do that. So it's very expensive,  
5 but it is very accurate because it's down to the  
6 tenth of a millimeter.

7 And in some places we do still need some of  
8 this, but we're trying to -- we much prefer to use  
9 GPS because GPS is much more cost effective. This

10 is an example in Texas. This out of ADS's  
11 database, NGS ID, I don't know what that stands  
12 for. Dave might know what that is. This is  
13 database of when elevations were established in  
14 Texas, going back to 1902. And you would see the  
15 majority of the elevation work was done in Texas  
16 back in the '40s, and that diminished, and then a  
17 little bit done in the '60s and -- up to the '90s  
18 and then dropped off.

19 And I believe NGS only has one leveling party  
20 right now to do the nation's leveling. And so  
21 what's happened in Texas with roads being developed  
22 and widened, all these benchmarks that were put in  
23 way back when have been destroyed. And we estimate  
24 it's probably about 20 percent of them left, which  
25 is a real pain for surveyors when they go to do

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1 things like elevation certificates.

2 I've highlighted here when the leveling  
3 adjustment was done in 1929, when it was tied to 26  
4 tide gauges and it was redone in 1988 to get rid of  
5 the biases introduced by those tide gauges. And  
6 one tide gauge was fixed, and that was that one up  
7 in Quebec in the St. Lawrence Seaway. Next one.

8 This is the monumentation we're talking about.  
9 This is actually an NGS benchmark on our campus.  
10 This is actually through our campus. It's still a  
11 reasonable mark, but where that flagging is, that's  
12 the original soil level when the mark was

13 established. And so we've had a lot of erosion  
14 there and then sooner or later that mark is going  
15 to fall over and be totally useless. And that one  
16 was established in 1963, it's dated up there.

17 Just to give you some comparisons of the two  
18 adjustments. Back in 1929, we didn't have much of  
19 an understanding of the geoid back then, and that's  
20 why we tied -- we assumed that sea level was the  
21 same on all three coasts and also the Great Lakes  
22 that was connected to the sea, which was not the  
23 case because of the geoid problem.

24 And so, back then, the adjustments was 100,000  
25 benchmarks, the readjustment in '88 was 450,000

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1 benchmarks, but a lot of them have been -- were not  
2 revisited for this adjustment. They were just  
3 readjusted using the original observations. Okay.

4 And so if you look at mean sea level versus  
5 this latest adjustment in '88 you will see  
6 differences around the coast. This is in  
7 millimeters or centimeters? Centimeters. All  
8 these biases were adjusted out from the '29  
9 adjustment, and when you compare mean sea level to  
10 NAVD-88 this is what sea level's doing around the  
11 country. It varies all over the place. Next one.

12 And, of course, we have NOS standard tide  
13 gauges in Texas and we've leveled to them using  
14 NAVD-88 elevations, and you can see the differences  
15 as you go along the coast, it's half a feet up here



16 in Galveston, two-thirds of a foot there in, I  
17 guess, that's San Antonio Bay or something. Corpus  
18 Christi it's .48 feet and actually down in  
19 Brownsville the NAVD is below mean sea level. So  
20 you can see there's a slope in sea level compared  
21 to NAVD-88 in Texas.

22 And this is one of the things that VDatum is  
23 being set up to address. So you can go to various  
24 places and know what the relationship is between  
25 sea level datums and the terrestrial datum for the

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1 United States. Next one.

2 We've also started as part of height mod is  
3 establishing CORS stations, that's the Continually  
4 Operating Reference Stations, the GPS stations,  
5 that are running 24 hours a day where surveyors and  
6 other folks can use this to do differential  
7 corrections to get the precise GPS observations  
8 down to a couple of millimeters. We have  
9 co-located a CORS station with a tide gauge. This  
10 is in Galveston on the Pleasure Pier. That's been  
11 up and running for about six months now and, it's  
12 now in the NGS CORS web site, and that data is  
13 logged every second. It's the one under GPS  
14 observation there. And, of course, that's  
15 available to mariners, too, if you know where to  
16 get it. It's not a realtime system. It's a  
17 post-processing OPUS solution type system.

18 This is VDatum. And you'll see it's very

19 scarce around the coast. And none in Texas.  
 20 There's a little bit in Louisiana, a little bit in  
 21 Florida. North Carolina's done quite a bit. Up  
 22 around New York, California's done quite a bit and  
 23 Washington state. And these -- there's a program  
 24 that's associated with height modernization but, of  
 25 course, it's not funded very well and, of course,

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1 we need a lot more data around the coast to tie all  
 2 these datums together.

3 Where it is available, it's fairly intuitive  
 4 to use. You put in an elevation and you can  
 5 convert it to whatever datum you want, from  
 6 terrestrial to any of mean sea level data, mean sea  
 7 level, mean high low water, whatever. It's a cool  
 8 thing because this isn't enough of it. And I think  
 9 my last slide is next.

10 GRAV-D. And this is what we're hoping, it's  
 11 the silver bullet for height modernization. If we  
 12 can get the GRAV-D observed throughout the United  
 13 States using this airborne system, which we know is  
 14 accurate to a couple milligal, we can get a much  
 15 better model for the geoid down to the centimeter  
 16 level, according to the geologists and engineers,  
 17 and that would allow us to use GPS just about  
 18 anywhere to get accurate orthometric elevations  
 19 relative to sea level. Here endeth the lesson.  
 20 Oh, sorry, one more slide.

21 This is an airborne system. This is the cost

22 of this. It's based on absolute gravity. And  
23 there was a comment this morning about why don't we  
24 use all the oil company data, the GRAV-D data? Oil  
25 companies are only interested in relative change of

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1 gravity, not absolute gravity. We need absolute  
2 gravity to produce an absolute geoid. So the oil  
3 companies have not observed gravity to the  
4 scientific way that we need to produce it with  
5 geoid, but it is useful data for the weather.  
6 Thank you.

7 CHAIRMAN SKINNER: Thanks very much. Before  
8 we go on, Matt, do you have anything to add to it?  
9 Mike?

10 DIRECTOR SZABADOS: Just a few comments.  
11 First of all, I really want to compliment the State  
12 of Texas for the about 30 years now we've been  
13 having collaboration on transferring technology and  
14 the standards. And because of that, there's a  
15 station that the State of Texas puts in for tides  
16 is fully compatible with the NOAA stations and  
17 standards and be able to be used with the NGS  
18 height mods. And I just wanted to compliment the  
19 State of Texas for the forward thinking and,  
20 actually, for me, shows a way that IOOS should move  
21 forward in establishing standards and better to  
22 have those standards.

23 Just a comment on sea level. I just want to  
24 say that the NOAA standards, and we maintain what

25 we call sea level, we call it relative sea level

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1 and it's relative to land. That's where you place  
 2 your feet, build your roads and build your house.  
 3 And the reason for that is we update that every 20  
 4 years, and that's to ensure that the nautical  
 5 charts stay relevant. Because if you don't -- as  
 6 indicated, sea level would be changing for a number  
 7 of reasons, due to climate, subsidence, spatial  
 8 rebound. And so we maintained that standard, that  
 9 relative sea level so the charts stay relevant.

10 And in the case of Texas and Louisiana and  
 11 Alaska, certain parts of Alaska, instead of doing  
 12 it every 20 years because of subsidence and spatial  
 13 rebound, we're doing it every five years now,  
 14 because there was a certain pilot group in Houston  
 15 who threatened not to bring the ships in after we  
 16 told them that we were moving the channel depths.  
 17 So what happened here was that in the state, in  
 18 Texas, because of subsidence and we changed that  
 19 relative sea level, it was a major jump. And to --  
 20 and caused great confusion. So to prevent that in  
 21 these high areas of subsidence, we update that  
 22 every five years now. And 2008 is the -- again,  
 23 we're doing it again. But there won't be a big  
 24 jump because we're going it every five years now.

25 DR. JEFFRESS: Right. Just to highlight that,

1 NOAA computes these title datums over 19-year  
2 period, which is what we call an Epoch. And the  
3 latest one, the 19-year period ended in 2001 and  
4 was subsequently published in 2003. The previous  
5 Epochs to that ended in 1978. And if you look at  
6 the value of mean sea level in Corpus Christi and  
7 Padre Island, mean sea level jumped a quarter of a  
8 foot between '78 and 2001. But people are still  
9 building houses to benchmarks that were established  
10 back in 1929.

11 CHAIRMAN SKINNER: Any other questions or  
12 comments? Before we start, John, I mentioned  
13 earlier that we were -- two of our members had  
14 gotten delayed. Adam joined us and now Jon Dasler  
15 is here. We're glad you can make it.

16 MR. DASLER: We established that VDatums can  
17 be a lot easier than getting from Dallas to Miami.  
18 I was wondering if you could backup to -- you got a  
19 slide that was showing some relationships of  
20 adjustments in -- there's a real peak around 1947.  
21 And I was wondering if that was related to the 1947  
22 leveling adjustment.

23 DR. JEFFRESS: You have to ask Dave that. Do  
24 you know that?

25 MS. DENTLER: Is this the one you were talking

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1 about? (Referring to slide on overhead projector.)

2 DR. JEFFRESS: The one that had the big peak  
3 in --

4 MR. DASLER: Because the '29 datum went  
5 through a big adjustment in '47, which was more of  
6 a leveling adjustment, which is -- looks like it  
7 was.

8 MR. ZILKOSKI: No. What you have there is  
9 that that's where the country started growing  
10 really, and this was typical in lots of other major  
11 cities that happened. But, in Texas, you know, you  
12 have the oil boom that started growing and people  
13 started moving into the cities and so forth, and so  
14 they started building the leveling network, so you  
15 go across the country to any one of your major  
16 cities that had any kind of major development. And  
17 oil in Texas was one of the major developments, so  
18 you have huge networks that started to build in the  
19 middle '40s all the way to the middle '50s and  
20 beginning in the '60s then it died back down again  
21 because the country was starting to slow down a  
22 little. That's what you see, that big hump that  
23 goes on there.

24 MR. DASLER: If you go forward, that showed  
25 the coastline of Texas and the relationship between

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1 NAV-88 and chart datum mean level low. But my  
2 observation there was that really, even along the

3 coastline, you're only looking at a, you know,  
4 two-to-five centimeters over some very vast  
5 distances.

6 MS. DENTLER: This one?

7 MR. ARMSTRONG: 18.

8 MR. DASLER: There you go. So over shorter  
9 periods -- and the CORS has been doing this in the  
10 bays for a lot -- you can extrapolate depending on  
11 what the tide constituents are relative to geoid  
12 elevations; once you know that separation, you can  
13 see there's not a lot of changes there. And then  
14 last, there's several waterways, Colombia River,  
15 for example, where the chart datum is based on an  
16 orthometric height, and so that relationship's  
17 established, and I guess I'm wondering why now when  
18 we're updating surveys along the Colombia River,  
19 you know, we're not getting on that and using the  
20 GPS heights for that. More of an observation, I  
21 guess, more of a rhetorical question.

22 MR. ZILKOSKI: If it was rhetorical, I'm not  
23 going to answer that.

24 CHAIRMAN SKINNER: I was going to say, Jon,  
25 you're letting everyone off the hook here.

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1 MR. DASLER: Well, I guess I know there's  
2 surveys on the Colombia now and they're putting in  
3 gauges and zoning, but the zoning areas are going  
4 to fire away -- if we did GPS heights, we'll have a  
5 lot better charts as a result.

6 MR. ZILKOSKI: Well, we are trying to, and I  
7 don't know the specific ones you're talking about,  
8 Jon, but we are trying to work with using,  
9 incorporating the best set of GPS heights with the  
10 tide values with the NAVD-88 wherever we can. In  
11 some cases, it may look like we're not using. But  
12 if we're not, there's probably some reason that we  
13 do have on there, and it's something we should  
14 address those. So on those cases, hopefully if  
15 people are asking us why we're not doing that, and  
16 maybe we don't have the information or that there  
17 is a good reason why we are not. I don't know your  
18 specific case, but we can talk about that and I can  
19 look it up and find out, because we are trying to  
20 use the latest and best values there but we do have  
21 to be consistent with what's around us.

22 MR. DASLER: Right. I know it specifically  
23 like we'll be doing a stretch from about Harrington  
24 Point on up to Vancouver, and then some NRTs are  
25 working above Vancouver, but they're going to use -

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1 we're going to use GPS heights with backup gauges  
2 and zoning to kind of show that relationship under  
3 a NOAA contract. But the NRTs are working above  
4 Vancouver and once you get above Vancouver, there's  
5 hardly any gauges installed and the zoning runs for  
6 about 40 miles up river and because of the result  
7 of the Bonneville Dam, you know, zoning -- you  
8 can't really zone that as safe based on the flows



9 coming out of Bonneville.

10 And that's a perfect application where they

11 should be using GPS heights for the coordinates

12 here on that stretch of the river where it's all a

13 gradient defined orthometric height.

14 MR. ZILKOSKI: Well, I will let him answer it.

15 DIRECTOR SZABADOS: Well, I was just going to

16 say, current technology we're using is evolving.

17 And, Dave, I guess -- I ask a question out loud.

18 Technology, we're moving to RTK and VDatum, should

19 we address some of these issues? Would that be a

20 correct statement?

21 MR. ZILKOSKI: It will address -- yeah, it

22 will address some of those issues, but some of it

23 has to do with the procedures in integrating it

24 into the system. So it will address some of them.

25 We're not there yet. But, once again, I'm not sure

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1 I fully understand, Jon, your specific example of

2 what you're doing there. But what Mike is saying

3 is once we have VDatum built in that area and we

4 have the models in place, you can use GPS --

5 kinematic or not, it doesn't make any difference --

6 you can use GPS with the VDatum model and you'll be

7 able to get your best estimate of your height above

8 whatever Datum you want at that point in time.

9 MR. DASLER: I presented in -- in the NOAA

10 field procedures workshop in Seattle that Colombia

11 River datum is really not defined by water level.

12 It was original water level observations back in  
13 1912 by Hickson, the Corps established -- what they  
14 call it -- an adopted low water on the river. But  
15 it's relative to -- originally, it was relative to  
16 NGVD '29, but now it's relative to NAV-88. So it  
17 really has no relationship to mean low level of the  
18 water. So it's already defined on an orthometric  
19 height. So, I mean, you don't really need VDatum,  
20 you know the relationships. And GPS heights along  
21 there, I mean, everybody's been surveying that way  
22 for years. And if we're updating charts, that's  
23 how it should be done, in my opinion.

24 MR. ZILKOSKI: You were at that meeting he's  
25 talking about. Do you know of any specific

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1 examples that he's talking about in Seattle?

2 MIKE ASLAKSEN: What was the example you gave  
3 again?

4 MR. DASLER: The Colombia River.

5 MIKE ASLAKSEN: Right.

6 MR. DASLER: The Colombia River, it's  
7 basically a gradient. If we want to, I can show  
8 slides later.

9 MIKE ASLAKSEN: That's an extreme situation,  
10 as far as the issues we're talking about here.

11 CHAIRMAN SKINNER: Can I jump in just for a  
12 second? One of the things we're going to talking  
13 about tomorrow is the possibility of setting up  
14 very small discrete panel work groups, maybe two or

15 three people, to look at specific issues, either  
16 technical or product-type issues and that type of  
17 thing. And I'm probably the least qualified to  
18 comment on this particular issue, but this sounds  
19 like something that might benefit from a couple of  
20 the panel members working with some of the NOAA  
21 folks over the next couple of months before the  
22 next meeting and maybe discussing this further.  
23 Does that sound like appropriate --

24 MR. DASLER: Yeah. Well, the only other  
25 comment I make, surveys are happening this year and

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1 if you do everything based on zoned tides, it's not  
2 going to be repeatable. If you do it in -- if you  
3 do your surveys this year and you tie it to the  
4 ellipsoid, you can go back and you can correct  
5 everything on that, so it is a little pressing in  
6 terms of operations this year, obviously.

7 CHAIRMAN SKINNER: Can you meet at the Blue  
8 Moon at 5:30 to iron this out by 7? Very sad  
9 looking faces here.

10 MR. ZILKOSKI: A couple things.

11 CHAIRMAN SKINNER: Sorry.

12 MR. ZILKOSKI: We will take care of this  
13 before the next meeting, Jon. We'll sit down with  
14 Jon and figure out what he's talking about and we  
15 can do it. But I think you're right, the bigger  
16 issue is these are the kind of things we need to  
17 identify, what's the overarching issue and we

18       should put it general terms so that we're able to  
19       take it to the future. That's use of GPS for tide  
20       zoning and what we do from now until the VDatum's  
21       up. Those are issues that as a group we can do.  
22       We'll take your example, Jon, and address that, you  
23       know, off-line. But tomorrow, I would still like  
24       to talk about the bigger picture.  
25               CHAIRMAN SKINNER: Any other comments or

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1       questions?  
2               CHAIRMAN SKINNER: Great. Thanks, Gary, and  
3       thanks, Matt. I wish I would have had one of these  
4       speaker systems when I was growing up. This would  
5       be great for sibling management, shutting someone  
6       off. I like testing this thing. Very clever.  
7               We are now going into the second public  
8       comment period, and I just want to see if anyone  
9       has signed up or anyone wishes to make a public  
10      comment?  
11              CHUCK HUSICK: Just one question.  
12              CHAIRMAN SKINNER: For the public comments, if  
13      you can go up to the microphone. Sorry to make you  
14      do this.  
15              CHUCK HUSICK: Sure.  
16              CHAIRMAN SKINNER: State your name again just  
17      for the record.  
18              CHUCK HUSICK: Chuck Husick. I listened to  
19      your comments about the height finding effort. And  
20      I note in recent days and months I've been getting

21 updates of approach plates for various airports  
22 around the country where the touchdown zone  
23 elevation of each end, and in some cases also the  
24 center of the runway, is given to the nearest foot.  
25 Can I assume that that's coming off GPS data?

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1 DR. JEFFRESS: That's the guy you got ask.

2 ADMIRAL WEST: It is.

3 DR. JEFFRESS: NGS, they're responsible for  
4 all airport surveys and actually the FAA uses a  
5 chunk of their budget to fund that which would be a  
6 good model to follow, for FEMA to do that same  
7 thing, by the way.

8 MIKE ASLAKSEN: Michael Aslaksen. Yes, we  
9 survey using kg/m GPS techniques and profile those  
10 and survey them again. Those are down to the  
11 centimeter level now. The FAA has its own  
12 standards as far as how they publish those. But  
13 the data that we provide to the FAA is down to the  
14 level relative to the control in the airport.

15 CHUCK HUSICK: I'm greatly relieved that it's  
16 not to the height of the tide. Thank you.

17 CHAIRMAN SKINNER: Thank you, Chuck.

18 BRIAN WALKER: Good afternoon. I'm Dr. Brian  
19 Walker at Nova Southeastern Oceanographic Center  
20 and the National Oceanographic Institute. And it  
21 seems like this panel has a lot of -- been working  
22 hard on a lot of issues. I just wanted to touch on  
23 one that was brought up earlier by Chantal Collier.

24                   Many resources in the conservation of  
25                   Florida's coral reefs have been invested by the

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1                   State of Florida and the NOAA and others.  
2                   Unfortunately, the issue of ship anchorages in  
3                   relation to coral reefs in South Florida still  
4                   remains a problem, as she discussed.

5                   As Chantal mentioned, the Coast Guard issued a  
6                   reconfiguration of Port Everglades anchorage  
7                   yesterday due to the numerous ship groundings and  
8                   insults to reef communities by ship anchors and  
9                   chains. Coral Reefs are extremely valuable real  
10                  estate. Reefs act to prevent coastal erosion,  
11                  provide a sand supply to our beaches, offer habitat  
12                  to a myriad of marine organisms and provide a  
13                  source of biodiversity.

14                  Reconfiguring the Port Everglades anchorage is  
15                  a big step forward for the reef conservation in  
16                  South Florida. Moving anchorage away from the  
17                  coral reefs helps to avoid future impacts and  
18                  allows the reefs to recover. Surprisingly, this  
19                  issue has not been addressed to other anchorages in  
20                  South Florida in close proximity to coral reef  
21                  habitat..

22                  As Chantal pointed out, the Port of Miami  
23                  anchorage contains about one square mile of coral  
24                  reef habitat. That's 25 percent of the area of  
25                  anchorage. Furthermore, most of this reef lies in

1 the shallow west portion of the anchorage, which is  
2 the area most used by the ships. The reef inside  
3 the Miami anchorage is included in a recent NOAA  
4 fisheries proposal as critical habitat for two  
5 species of corals, the acropora cervicornis and a  
6 A. palmata, which were recently listed as  
7 threatened in the Endangered Species Act.

8 Miami-Dade Environmental Resource Management  
9 recently found 33 of these colonies of acropora  
10 cervicornis as close as a half mile south of the  
11 anchorage on the same reef that goes through the  
12 anchorage, making it very likely that this species  
13 also occurs in the anchorage. This means that the  
14 NOAA charts will be directing ships to anchor and  
15 NOAA critically -- NOAA's critical habitat for this  
16 threatened species. The Miami anchorage must be  
17 reconfigured to avoid further impacts to this  
18 threatened species, its critical habitat and to  
19 other living coral reef organisms.

20 The National Coral Reef Institute is closely  
21 working with Florida DEP, Coral Reef Conservation  
22 Program to evaluate the anchorage and to develop an  
23 alternative anchorage configuration. These results  
24 will be presented to the newly-formed Miami Harbor  
25 Safety Committee in the near future to offer

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1 options for changing -- changes in anchorage  
2 configuration that will not impact reef  
3 communities. In order to develop information  
4 relevant to the reconfiguration, we respectfully  
5 request that the panel seriously consider placing a  
6 survey of deeper waters around the Port of Miami on  
7 a higher priority to gain better data that will  
8 assist in the reconfiguration evaluation and  
9 facilitate an emergency role change in the Federal  
10 registry by the Coast Guard. We can provide these  
11 recommended survey areas upon request. Thank you.

12 CHAIRMAN SKINNER: Thank you. Just to  
13 clarify. We have not in the past -- this panel has  
14 not set the priority areas for or specific priority  
15 areas for surveying. But I think we've certainly  
16 heard one of the concerns here in Miami, and I  
17 think we will be discussing with NOAA whatever  
18 possibilities there are here, but it's not this  
19 panel that sets the priorities.

20 BRIAN WALKER: Okay. That would be great,  
21 because even off-line and in your own line of work,  
22 this reconfiguration can't move forward until the  
23 hydrographic survey is done of the newly proposed  
24 areas. Thank you.

25 CHAIRMAN SKINNER: Thank you very much. Thank

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1 you for spending the time here at today's meeting.



2 Other questions? Is there anyone else, any other  
3 public comments?

4 Just to check with the panel, we have a break  
5 scheduled right now or we could just move right  
6 through and go to the IOOS presentation. Any  
7 strong thoughts on skipping the break? Hearing  
8 none, jumping at the chance to hear none.

9 CAPTAIN JACOBSEN: Five-minute break.

10 DIRECTOR SZABADOS: We hear recommendation of  
11 five minutes.

12 CHAIRMAN SKINNER: I can't see her, so -- five  
13 minute break, and then we will get back here in and  
14 launch into the IOOS presentation:

15 (Recess.)

16 CHAIRMAN SKINNER: Reconvening the panel. A  
17 couple of administrative things. We have dinner  
18 scheduled for panel members tonight. Barbara, help  
19 me out a little bit. It's at 7:00 in the Blue Moon  
20 Restaurant.

21 MS. HESS: At 5:30, open bar, I think; not an  
22 open bar, wait, I take that back. No, no, no.

23 MR. ARMSTRONG: Woo-hoo.

24 MS. HESS: This is my parting gift to you all.  
25 It's a two-for-one special in the bar, and then

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1 7:00 the seated dinner.

2 CAPTAIN HICKMAN: Woo-hoo.

3 MS. HESS: The seated dinner will take place.

4 I need you to come and see me and make sure your

5 name's on the list or I'm going to have to pay big  
6 bucks.

7 CHAIRMAN SKINNER: Barbara sort of fronted the  
8 costs on this against all advice and regulations  
9 and so forth. Please don't -- if you said you were  
10 going to go or indicated you were going to attend,  
11 please don't make other plans. Were there any  
12 other announcements, Barbara?

13 MS. HESS: No. Thank you.

14 CHAIRMAN SKINNER: Moving onto the IOOS  
15 portion of the meeting. I just wanted to go  
16 through a little bit of the history of where we've  
17 been on IOOS with this panel. You know, we started  
18 some years ago and the whole discussion of IOOS  
19 versus ports, we sort of thrashed that around and  
20 came up with when we were responding to Admiral  
21 Lautenbacher on the U.S. Ocean Report, our advice  
22 was sort of the rising tide floats all boats, so to  
23 speak, and that IOOS reports were linked, and that  
24 we supported all these efforts, particularly IOOS  
25 with a navigation component. We have been pushing

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1 that for a couple of years.

2 We had some concerns at the last meeting in  
3 Seattle based on some regional words we had heard  
4 about involving mariners in ocean-observing  
5 systems. And Mr. Nagle was there and has done a  
6 lot of work on behalf of what we'd like to get  
7 implemented; resulted in my going to a NFRA

8 meeting, which is the National Federation of  
9 Regional Associations, for Integrated Ocean  
10 Observing Systems. I'm not saying this slow for  
11 the reporter. I'm saying it because I struggle  
12 with it every time. That was a very productive  
13 meeting. We've had some feedback. There's some  
14 feedback in the notebook.

15 I think one of the best things was that most  
16 of the managers for Ocean Observing Systems  
17 wondered what the problem was that the mariners  
18 were one of their biggest constituency groups, and  
19 I think a lot of their programs reflected that fact  
20 and we got a response from NFRA with a listing of  
21 the different ocean observing systems and the types  
22 of programs that they were implementing for  
23 mariners, which I think was all very, very  
24 positive.

25 I also was subsequently on an IOOS grant

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1 review panel that met in January -- and I can't  
2 talk about the details of the proposals -- but I  
3 was surprised at how many of them had really  
4 interesting maritime navigational components in  
5 them. And that was also very heartening to see.

6 One sort of side update. I mentioned this  
7 before. Bruce Carlisle had mentioned it in his  
8 presentation that there were two offshore LMG  
9 proposals in Massachusetts, and I worked on one of  
10 them. But as part of that project, the Stellwagen

11 Bank National Marine Sanctuary requested an array  
12 of buoys in and out of Boston Harbor.

13 And these buoys have been configured through a  
14 consortium led by Cornell University to detect  
15 Right Whales vocalizations. And the system became  
16 live probably two months ago. To get background  
17 data, two weeks ago the first LNG tanker came up to  
18 the northeast gateway buoy system to commission the  
19 buoy. It came without a cargo, but they tested the  
20 system and it worked as designed. So I think that  
21 has some potential applications, particularly in  
22 those ports that have a Right Whale or other marine  
23 mammal issues.

24 Basically, it works on a realtime basis where  
25 the buoys are configured to pick up Right Whale

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1 vocalizations and alert vessels in the area to  
2 their presence. Andy?

3 MR. ARMSTRONG: If I could just elaborate on  
4 that. Geo-hydrographic Center is developing a  
5 system in connection with Cornell to transmit the  
6 information from the acoustic signals on the buoys  
7 to the ships via AIS for display on the shipboard  
8 navigation system.

9 CHAIRMAN SKINNER: I should have mentioned  
10 that. The port operators group in Boston had a  
11 presentation from -- I forget the person's name.

12 MR. ARMSTRONG: Chris Ware.

13 CHAIRMAN SKINNER: Right. It was very

14 informative. I would say overall the group has  
15 been sort of very calm about this whole proposal,  
16 but then when they actually saw what it could do,  
17 they were very excited. So I think this is  
18 something that's good news.

19 Also, I just want to -- I think I mentioned  
20 this earlier, as in a very short period of time has  
21 really taken our message and aired it out to the  
22 troops, and we really appreciate that. There's  
23 been a lot of positive developments in IOOS, but  
24 not all is well in IOOS-land, and I think that is  
25 part of our efforts and

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1 this-rising-tides-floats-all-boats issues. This is  
2 something we have to be pretty vigilant on.

3 There's been some work to collaborate with the  
4 PORTS program and, Mike, we all appreciate that and  
5 all the stuff that you've been working on. There  
6 has been efforts to integrate IOOS with a sea floor  
7 mapping issues, and I think that's also very  
8 positive. Heck, we even have an IOOS dating  
9 service -- what's going on? -- today.

10 ZDENKA WILLIS: It's never good between this  
11 panel and two for one drinks, so I know that much.  
12 Thank you.

13 CHAIRMAN SKINNER: It doesn't start until 5:30  
14 so we've got sometime.

15 ZDENKA WILLIS: Plenty of time. So I'll go  
16 over a number of issues. So I'll try to go over a

17 number of issues, and I appreciate the vote of  
 18 confidence there. We, within NOAA are work  
 19 collectively to support the maritime community in a  
 20 number of our programs and we, IOOS, as I tell  
 21 everybody, IOOS is a national endeavor, and our  
 22 missions are your missions, so I'm glad to hear  
 23 that.

24 So I'll just run through a number of topics  
 25 here, probably the first of which we all talk about

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1 is status of funding. Certainly IOOS is now within  
 2 the president's budget and you saw the FY-09 rule  
 3 out by Jack Dunnigan this morning. From FY-08  
 4 perspective, the president's budget actually had  
 5 two lines, a NOAA IOOS line and the regional IOOS  
 6 line, is how the president puts the budget forward  
 7 and that was a 14 million dollar request.

8 In the omnibus, IOOS came in with 26.3 million  
 9 and we had one earmarked for 940 K for the Alliance  
 10 of Coast Technology, which is a cross-cut among  
 11 eight different universities to do center  
 12 verification. So about 27.3.

13 But to put that in context, where IOOS has  
 14 been, in fiscal year '05, although it was through  
 15 earmarks, the highest we've recorded against IOOS  
 16 was 54 million dollars. So certainly not the trend  
 17 that we like to see from 54 million in FY-05 to  
 18 27.3 in FY-08. And we are certainly pleased,  
 19 at least from the president's budget, that it's

20 going up. So we hope to get back up there. So  
21 that's where we are on the funding.

22 With regard to, as you know, with IOOS, we  
23 apportion funds out to the regions and while there  
24 is no set formula, if you look at S950, it shows  
25 about a 50-50 split. Historically, the percent of

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1 dollars going out to the regions was 57 percent in  
2 FY-05. And we are still at the recommendation  
3 stage for FY-08. And we're looking at least 67  
4 percent of the funds going after the regions. And  
5 while many -- we did do this process for our  
6 competitive panel -- and I'll talk about that  
7 process in a minute -- and while the P.I.s, the  
8 principal investigators, have been notified of  
9 NOAA's intent, it is still a recommendation until  
10 that actually gets processed and so I can't talk  
11 about specific funding to specific grants in a  
12 public forum like this.

13 Quickly, the meritorious -- the merit-based  
14 proposal process that we went through from in FY-08  
15 was similar to FY-07, and we were able to make some  
16 changes because we started this in FY-07, so we  
17 were in our second cycle. And we were able to make  
18 some changes based on lessons learned and based on  
19 talking with this panel. One of which was having  
20 recommendations by the HSRP, for reviewers, and so  
21 several of you participated as mail reviewers, and  
22 then Tom was on the panel.

23           And just so you know the breadth of which we  
24           had with regard to this panel in the reviewing  
25           process, we had 14 academic institutions, 13

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1           federal agencies, 6 state agencies, 6 professional  
2           organizations or consortiums, two private  
3           industries And we actually had a Canadian  
4           government agency. So we do have a breadth of  
5           reviewers and that's always tricky because many  
6           people in the oceanographic community are part of  
7           these proposals coming in, so we have to manage  
8           that.

9           So that's where we are. And I can take  
10          questions in the middle of this or when I go  
11          through. Because I'm going to go through an array  
12          of topics, so I'll watch for people to flag me if  
13          you have questions.

14          CHAIRMAN SKINNER: I think to the extent we  
15          can make this a little bit more interactive would  
16          be great.

17          ZDENKA WILLIS: Yeah, 'cause, 'cause, I can  
18          firehose but I don't want to, so I will keep trying  
19          to look up to make sure, because I just have  
20          talking points. I'm not doing slides today.

21          So within the NOAA IOOS office, in addition to  
22          watching out for these regional associations who  
23          are building regional coastal ocean observing  
24          systems -- and a lot of acronyms here, there are  
25          eleven of them -- we are working on, as has been



1       discussed, across other NOAA programs. So it is  
2       with cooperation with Mike and his groups that we  
3       are entering into an agreement with CO-OPS, with  
4       IOOS and with the Army Corps of Engineer to offer  
5       the realtime quality-control waves products  
6       tailored for ports and the partners in the maritime  
7       navigational community, and that's going to be  
8       ongoing this year through 2008.

9             It is certainly in collaboration with our  
10       National Data Buoy Center, who has their waves  
11       buoys out there as well and provide data assembly  
12       center -- data assembly work on that behalf. It's  
13       also a very specific project going on and, Tom, I  
14       don't know if you're going to talk after I am on  
15       the specific project, but it is an IOOS-funded  
16       project in the Long Beach area, which is really  
17       what got us started to be able to demonstrate and  
18       work with Mike on his system, which is a realtime  
19       system that he's got liability issues that we need  
20       to work through. But it's just, I think, great  
21       cooperation between, you know, what we have funded  
22       through IOOS to get translated into Mike's system  
23       on ports and on CO-OPS. So I think that's  
24       something we talked about in the last September  
25       meeting and we, you know, accomplished that and

1 working through that with real milestones by August  
2 of 2008.

3       Going back to our regional folks, and you have  
4 the letter from NFRA, you asked us to take a look  
5 at the regions, were they responsive to user needs  
6 and user requirements, and so NFRA has provided  
7 that letter to you. You asked us to do program  
8 reviews on the regional associations and all of the  
9 projects that we have funded, and we began that  
10 process with the Great Lakes Ocean Observing  
11 System. We did their first regional assessment.  
12 They were first in the barrel and we did that on  
13 the 26th of February. We have all eleven regions.  
14 The assessment's set up by my office. The next one  
15 is -- I have to think about my schedule here -- the  
16 next one is in April and that will bring -- in  
17 Houston, actually, and that will bring GCOOS, our  
18 Gulf of Mexico Coastal Ocean Observing System;  
19 SECOORA, our Southeast Coastal Ocean  
20 Research Regional Association; and the Caribbean  
21 Regional Association together in April 23rd; April  
22 30th, we will go to Rutgers and we will do MACOORA,  
23 which is Mid-Atlantic; and NERA's, New England  
24 Regional Association; Alaska will be done actually  
25 in Washington because Molly McCammon then travels

1 back and forth to Washington; the Pacific Islands  
2 will be done via VTC to try to also save on  
3 resources; and then in June we will pick up the  
4 three regional associations, Regional Coastal Ocean  
5 Observing Systems of the West Coast, that's NANOOS,  
6 CeNCOOS and SCCOOS, so if I confused you with all  
7 those acronyms, it's where we live. So we've done  
8 that.

9 But yet, even though we are doing this, there  
10 is still concerns on the ability to fund the  
11 observing capacity that exists there and that has  
12 been built up from previous earmarks. As Emma West  
13 has said, you've got to keep the lights on. And,  
14 you know, we don't have the funding that we need  
15 for the operational maintenance. And as went  
16 through this very abrupt change in 2007 from an  
17 earmarked process into a merit-based proposal  
18 process, it is not a perfect process, and we  
19 realize that.

20 And so, also, additionally, in August of last  
21 year, we met with the NFRA executive board on what  
22 was -- and the consortium for ocean leadership and  
23 Ocean.US to talk about that process. And in that  
24 we have a program support contractor who is  
25 developing an IOOS regional business model. And

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1 reason that they're doing that is one of the  
2 requests that came in from the NFRA letter to NOAA  
3 was, well, I get funded by this federal agency

4 under this program and it's a better way to do it  
5 than what you're doing at NOAA; whether it's a DOD  
6 program, a Department of Energy Program, an NSF  
7 program.

8 So the first part of that study which was  
9 completed in December was to evaluate those various  
10 funding mechanisms that would be available to be  
11 able to fund the Regional Coastal Ocean Observing  
12 Systems that still meets the intent of being a  
13 competitive process and how can we get from, you  
14 know, right now, what's basically year-to-year or  
15 even a three-year cooperative agreement with  
16 subject available funds into a five-year process.  
17 So they laid out the various funding mechanisms  
18 that are used within the federal government.

19 And the second part was to actually take a  
20 look at a regional business model from a strategy,  
21 organization structures, IOOS requirements,  
22 implementation plan, funding and communications.

23 They looked at it from both a federal  
24 perspective and then they went out to the regions,  
25 and so they've done that rigorous analysis, they've

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1 conducted the interviews and we had a midterm  
2 progress review of that work in the -- on the 26th  
3 of February. I joked with my husband when I read  
4 it, that if only I could clearly identify what  
5 everybody needs to be doing, it would just be  
6 perfect.

7 But it does point to the fact that we do need  
8 to be capturing what the requirements are that this  
9 sector has and other sectors so we are building to  
10 something. And that was pretty clear, and I think  
11 that's been a comment certainly of this panel and  
12 others with regard to IOOS. And so we're going to  
13 work forward on that.

14 So things like -- we have regional  
15 associations who are developing models that can --  
16 that have the potential operability to a port  
17 system. And within NOAA we've got the offices here  
18 under Steve Barnum, he's got the Coastal Services  
19 Development Lab and who does development of those  
20 types of models that gets supported and  
21 transitioned into CO-OPS, where there's a process  
22 whereby that needs to be done and you saw the  
23 difference in that gap. You saw 48 model gap in  
24 what we saw earlier this morning.

25 We do have regional associations who have

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1 developed those. And so we talked earlier this  
2 week. I need to get -- it's still in a written  
3 agreement -- that, you know, how to do that, but we  
4 talked about taking the models that, you know,  
5 MACOORA up in the New York York or the Great Lakes  
6 have developed, put them through the same rigor  
7 that already occurs between Steve's group there at  
8 NOAA and Mike's group and, you know, making sure  
9 that the commensurate computing power and all that.

10           So those are the types of things that I think  
11           are really exciting and that will also give us the  
12           ability to, you know, get away from this perception  
13           that the regions are just out there doing what they  
14           want to do. And they're not. Because they've done  
15           those user needs and they've done those assessments  
16           and they've actually provided us a first draft, us,  
17           NOAA, it's available to everybody. It just happens  
18           to be that I -- when I'm talking us, it's NOAA --  
19           on some conceptual designs. So I think that those  
20           are some areas that where we need to work on our  
21           regions.

22           A couple other things that we're doing. HF  
23           radar. We talked this morning about the oil spill  
24           there in San Francisco. There was a meeting that  
25           was sponsored by the State of California and NOAA

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1           in January. In looking at the use of additional  
2           observations, specifically HF radar, and how that  
3           matches up with the current oil spill response  
4           model that NOAA runs, so OR & R was there,  
5           sanctuaries was there. I was there from a  
6           programatic perspective, and the Army Corps was  
7           there, the various entities in California that are  
8           involved in this. And so that's the next area that  
9           we're going to concentrate on.

10           Because for the most part while the HF radar  
11           has -- the network is growing, we are in, I think,  
12           about 95 or 96 HF radars, most of what's been

13       available in the national server has actually kind  
14       of been a picture of the data and that doesn't help  
15       you. You actually need those vectors. So that's  
16       what we're working on this year is to actually get  
17       that vector data out and then get into a format  
18       that the model can use or, in our case, the model  
19       actually has to be looked at because of the  
20       configuration of the model, to be able to take not  
21       only the ports data but the HF radar data. So  
22       that's why we're working in the HF radar. We are  
23       doing our due diligence within our NOAA, Planning  
24       Programing Budgeting Execution System to get those  
25       requirements, and so we can try to start to get the

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1       funding for sustainment.

2               Because there is no funding for sustainment of  
3       this capability, which is showing huge promise for  
4       not -- an oil spill response, for a number of ocean  
5       health issues, beach closure, a number of updates  
6       to, you know, the three dimensional circulation  
7       models which are critical to this group. So that's  
8       another area that we're concentrating on.

9               We are in the midst of completing the draft of  
10      a Senate report. Last year's appropriations  
11      language tasked NOAA to write a report on IOOS that  
12      was supposed to encompass all of NOAA, all of the  
13      federal agencies, all of the regions, and if we had  
14      time, the international component. But we, I think  
15      most of you received received my Z-gram -- which

16 I've gone to biweekly instead of weekly -- and I  
17 talked about that, but it is -- what we have --  
18 what we were directed to do and what we worked  
19 with -- and we think it's an important way to go --  
20 is to focus the report so that we can show it isn't  
21 everything for everybody, but we can show support  
22 in areas that are important to the nation, coastal  
23 inundation, the maritime transportation sector, the  
24 integrated ecosystem, effector and harmful algal  
25 blooms, harmful algal blooms modeling, how to bring

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1 this together so that this report does show in a  
2 realistic manner how by that, you know, you need  
3 products and services, you need the integration of  
4 that data, you need the observation systems to make  
5 it work in a way that is understandable.

6 And then that -- by doing that in a holistic  
7 way, we can then support other areas. So that  
8 report is soon to go into clearance. We met -- and  
9 because it's going through the appropriations, it  
10 goes through our budget shop, and so we have --  
11 we've got some work we're doing on that. But I  
12 think we're close on getting that into clearance.  
13 Let's see. What else have we done?

14 The interagency working group on ocean  
15 observing, for the integrated coastal mapping. We  
16 have one for ocean observing and, in fact, Jack  
17 Dunnigan chairs that. On the NOAA rep you should  
18 see soon, we hope within this week a public,



19 registry notice for comment on an IWGOO, IOOS  
20 strategy, which was actually started last year,  
21 gosh, at least a year ago now. So that is working  
22 its way through our administrative process within  
23 NOAA to come out.

24 Talked about last time. We talked about  
25 standards and how they're important for us to be

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1 able to use that data. We did kick off in October  
2 the U.S. Data Management and Communication  
3 Standards process. US DMCS process. NOAA used our  
4 resources to take the -- as I take it, you know,  
5 it's a 10,000 foot level that you could almost make  
6 a decision to, down to the two foot level where you  
7 could actually make some decisions in this process.  
8 It's a three-step process. You propose the  
9 standards. They go from proposed to submitted, the  
10 public notice, and then they get to recommend it.  
11 It's an ongoing process, we call it, you know, open  
12 season or tax season for standards. But in the  
13 first cycle, we brought eight standards in. Four  
14 made it to the -- from the proposed -- from the  
15 submitted -- submitted to proposed. I'm sorry.  
16 And they went out by public register notice and  
17 that just finished. And we will have the next data  
18 management and communications steering team meeting  
19 in May. They meet every month. While the process  
20 is open 365 days a year, we close it down in, for  
21 example, we'll close down the input of any any

22 standards to be looked at the May meeting in March  
23 because we have to do some processing. So that is  
24 ongoing.

25 We talked to you about a data integration

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1 framework, which was our ability first within NOAA  
2 to be able to use, as we call it, data off the  
3 shelf for any user and that is plowing along,  
4 again, in great cooperation with CO-OPS. They've  
5 got a programmer that is absolutely fantastic, and  
6 Mike Schapp has just been great in working with us  
7 to bring this together and our National Data Buoy  
8 Center down at Stennis, our two large areas that  
9 are processing data to start the data integration  
10 framework.

11 In February, we met with the data management  
12 and communication reps from all 11 regions, and so  
13 we're extending the Dif from what as we call it  
14 Club Fed out to Club Regions and the nice thing  
15 about them is that they are really more agile in  
16 computer programming than sometimes we are in the  
17 federal government. So there's a lot of excitement  
18 in moving that forward.

19 And so we've done that and we do have a web  
20 site where we try to be very open and transparent,  
21 it's [www.IOOS.NOAA.gov](http://www.IOOS.NOAA.gov). And we also link back  
22 into, from a data perspective, the very, again,  
23 great web sites, the buoy center and NDBC and  
24 CO-OPS comes from a data perspective. They still

25 have their own but we try to link our partner and

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1 our regional execution is our NOAA's coastal  
2 services center, again, a very distributed  
3 management within NOAA and the federal governments  
4 and the regions.

5 We talked about a national waves plan. I  
6 would have hoped that this would have gotten out to  
7 you all by now for comment. The first version came  
8 in -- actually, my office in fall, and there was  
9 just some things we needed to have looked at before  
10 we could actually get it to a wider audience and  
11 then we just -- Army Corps is our lead on that, got  
12 a little bit overwhelmed there. And I'm expecting  
13 that the draft which would then -- NOAA and the  
14 Army Corps will bring it into the IWGOO when that's  
15 ready. Then the IWGOO, and for my case, I will  
16 then send it back out to NOAA for comment, but we  
17 will work to also get it out to the HSRP for  
18 comment so that you're seeing all this.

19 And one other topic and then I will take  
20 questions. Just so you know, it's a point of, I  
21 think, great interest, NOAA and Shell signed an  
22 agreement on the 13th of February and that -- my  
23 office is the collaboration lead on that; in this  
24 case Buoy Center is our technical lead, as is Jack  
25 Carlan for HF Radar and this is -- Shell is putting

1       oceanographic immunological sensors on platforms  
2       within the Gulf of Mexico at their expense and  
3       working with NOAA to make sure that data is in  
4       format so that we can use. So that's a very  
5       exciting partnership. That was just signed in  
6       February, and there's six projects there, including  
7       putting an HF Radar on one of their platforms to  
8       try to look at some bistatic signal returns there  
9       in the Gulf of Mexico.

10           And we just got -- or the Admiral just got an  
11       e-mail that B.P. would like to now enter into a  
12       similar agreement, so we're -- we just got that in  
13       and we've made the query to B.P., so I think I'll  
14       stop there. And, Tom, I didn't know -- I think you  
15       were also on here. I didn't know what you wanted  
16       to talk about, but I'll take questions from you.

17           CHAIRMAN SKINNER: Why don't we start with  
18       questions or comments and then go onto Tom for the  
19       WOR beach project.

20           CAPTAIN JACOBSEN: I will give a quick update.  
21       Questions?

22           CHAIRMAN SKINNER: Any questions?

23           MR. SZABADOS: What were the four parameters  
24       that got elevated for the standards?

25           ZDENKA WILLIS: Oh.

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1           DIRECTOR SZABADOS: I don't know, but I lost  
2 track 'cause --

3           ZDENKA WILLIS: Yeah, I should know, too, but  
4 I can't -- it wasn't by parameter. I will have to  
5 get back on that, Mike, because, you know, as soon  
6 as I said that, you know, I can't rattle them off  
7 right now, and -- but I'll get back to you all on  
8 what those were. It was the NASA standard and NOAA  
9 standards from our -- and the Cortas (ph) Group,  
10 and so we did have to table for that, we're on the  
11 QHUC 'cause we didn't have the right expertise, so  
12 we're formulating that right expertise on that, so  
13 we should get that fixed by May. But I'll get back  
14 on that. I can't remember.

15           DIRECTOR SZABADOS: All right.

16           CHAIRMAN SKINNER: Jon?

17           MR. DASLER: I was just curious on HF Radar.  
18 I know you're putting it into places where you can  
19 do forecasting, but are they also putting that in,  
20 selling that as also a tool that can be used for  
21 realtime observations during the spills especially  
22 in critical areas, like in San Francisco Bay, is  
23 that --

24           ADMIRAL WEST: Yeah.

25           ZDENKA WILLIS: That's what the meeting was on

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1           the 15th of January and -- there is a one-pager on  
2 that. I know I sent it on the Z-gram, but we'll

3 get it out to you. But yeah, it is exactly that,  
4 to be able to understand the trajectories with the  
5 realtime currents that are being continuously  
6 monitored, in addition to, you know, the port  
7 systems that already have that out there. But  
8 absolutely, that's what the intent and the  
9 discussion on that meeting was. Some of it has to  
10 do with, again, getting the actual vectors into the  
11 format that can be used.

12 MR. DASLER: I think that can be a big selling  
13 benefit for the realtime observations, where  
14 they're putting out booms and you got wind-driven  
15 currents in San Francisco Bay and where the oil's  
16 going.

17 DIRECTOR SZABADOS: On the HFR, I just want to  
18 highlight that NOAA is working with IOOS community  
19 up in New York right now with Rutgers and Stevens.  
20 Again, the HFR, as an oceanographer, you get a plot  
21 from a lot of vectors and from the oceanographers  
22 you get the oohhs and aahhs. But then you have to  
23 make a practical product that the operational  
24 person could use, including make sure you have it  
25 quality controlled, so we're in the process of

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1 trying to do that. We're more than trying. We're  
2 working on that.

3 CHAIRMAN SKINNER: Admiral?

4 ADMIRAL WEST: Hasn't MMS required the rigs in  
5 the Gulf to provide you the data?

6 ZDENKA WILLIS: They have required for the  
7 ADCP data, but this is above and beyond anything  
8 that they have access to.

9 ADMIRAL WEST: But it took that initiative for  
10 them to start cooperating before they decided they  
11 would join us, is that fair or is that not fair?

12 ZDENKA WILLIS: That's fair to say that that  
13 is where that started. Also then through the Gulf  
14 of Mexico, Alliance, the president of Shell met at  
15 the meeting in 2006 met with Admiral Lautenbacher  
16 and Jon Hoffmeister, really, from what he's stated  
17 to us and shown through his company, that he really  
18 wants to about a better steward with the  
19 environment and with the community down there, but  
20 certainly it did start because of that insistence  
21 by MMS.

22 CHAIRMAN SKINNER: Other questions, comments?  
23 I have a couple I wanted to follow-up on, Ed's  
24 comment earlier, on the suggesting that the IOOS  
25 bill be amended with some language about user

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1 groups, I think that was it, wasn't it?

2 MR. WELCH: That was, Tom, but I've looked  
3 further in the language there, and there's actually  
4 some stuff there I think is fairly good that this  
5 idea's embraced present.

6 CHAIRMAN SKINNER: So I might have been ahead  
7 of myself. Check. The next thing I just wanted to  
8 mention, I'm on the board of an ocean-observing

9 group that was an earmarked baby and I think it  
10 probably wouldn't have gotten off the ground  
11 without it, but having said that, the move towards  
12 the competitive I think is really needed - or was  
13 needed and is a brilliant move.

14 Looking at the different proposals that come  
15 in, the quality of the submissions ranged over a  
16 very wide area. And this is the way to go. And I  
17 think that this would not have happened without  
18 Admiral West constantly driving this home. And I  
19 think that he should be recognized for that effort.  
20 It's no fun badgering people to give these things  
21 up. And it really was needed.

22 ADMIRAL WEST: Yeah, absolutely. The problem  
23 is now you got the back lash because you can't keep  
24 everybody happy. We just -- NOAA just didn't get  
25 enough money to keep everybody going, and now you

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1 got some back lash, literally today, over there  
2 stirring the pot, well, I'm not sure I really like  
3 where we are going now because I didn't get all my  
4 money. So we're kind of caught in a Catch-22, so  
5 now they're pushing back at us and the momentum  
6 over on the Hill is kind of like this, and we're  
7 right at a critical moment, I think, with IOOS.

8 The other indicator is some of the proposals  
9 weren't good because they never had to compete for  
10 the money, it was earmarked. So in some ways  
11 competitive money makes better products for



12 American investment. So there's lots of good  
13 things going on here, but we're at a critical time  
14 right now where we've got some turmoil, some people  
15 pushing back because they haven't gotten all their  
16 money and I can't keep all the lights on, I got to  
17 fire people. And I certainly appreciate that. But  
18 until NOAA took the huge step of rolling up and  
19 starting a national line, as most of you know,  
20 earmarks are harder now, I guess that's -- is that  
21 fair, harder now? They're still here. They'll  
22 never go away. McCane gets in there, they will  
23 even be harder, but so I think it is the right  
24 direction. But everybody needs to know, there is  
25 some real tense times right now. Zdenda knows.

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1 Well, if we're giving you money, we got to keep  
2 them going. You got to find some weak folks to  
3 keep them going.  
4 But that brings up a good point. One of the  
5 other problems we have with IOOS, in fact, because  
6 they were earmarks and because they started by the  
7 active research community was, the user says, well,  
8 you never contacted me when you designed your  
9 architecture and all this other stuff, so there  
10 really is -- we got to keep up the pressure that  
11 these folks that are getting this money understand  
12 that they're putting this not just for the  
13 researchers but for the commercial industry, the  
14 transportation commercial and all that stuff, so we

15 got to keep that pressure up, too.

16 MR. WELCH: And, Admiral, and the letter of  
 17 response was an excellent letter. And I was just  
 18 looking through the chart that was attached. And  
 19 one observation I would make is that, you know,  
 20 consulting with one user is not consulting with all  
 21 users, for example, there were a couple of the  
 22 regions that listed two or three users, so to  
 23 speak, but they were all in the fishing industry.  
 24 So in that region, there wasn't any -- assuming --  
 25 I'm assuming it was the shipping industry in

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1 those commercial shipping industries. But the  
 2 fishing industry's going to look after its own  
 3 commercial fishing -- commercial shipping is going  
 4 to look after its own. In some ways there needs to  
 5 be some initiative from the private sector saying  
 6 we want to be involved but there needs to be some  
 7 responsibility about it. The regional folks say  
 8 more than, oh, let's check off a box. We got one  
 9 or two users from a couple of segments and we can't  
 10 assume that they all speak for everybody.

11 CHAIRMAN SKINNER: Do you want to respond  
 12 or --

13 ZDENKA WILLIS: It's very valid. And one of  
 14 the things as we go through this assessment is for  
 15 those regions to -- so that I can understand what  
 16 is the breadth of the users and really how involved  
 17 are they in the organizational structure. And I

18 will tell you that, you know, NFRA did have their  
19 meeting, their buy-in -- I guess they do it every  
20 six months -- meeting at the start of the science  
21 meeting last week in Orlando and there was -- I  
22 wasn't there for the entire meeting, but that was a  
23 discussion on there. But again, I was very -- as  
24 the program manager was very happy that the HSRP  
25 was able to put the letter together, and I welcome

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1 this panel's continued dialogue and continued, you  
2 know, pressure -- and I don't mean that in a  
3 derogatory way at all -- to continue to make us,  
4 the IOOS community, be responsive to your needs.  
5 And so I think -- I appreciate, you know, that  
6 opportunity.

7 CHAIRMAN SKINNER: I think probably Admiral  
8 said it better than I did when I was saying, well,  
9 good things with IOOS, but there's some problems  
10 ahead. This is really the critical point, and I  
11 want to make sure that to the extent that this  
12 panel can really stay on top of this issue, because  
13 it is sort of a tipping point and we, you know,  
14 progress in other programs has been made, that's  
15 gone the wrong direction -- I'm not referring to  
16 anything in NOAA -- we want to make sure that that  
17 doesn't happen here and staying on top of that I  
18 think is critical and I think we might want to  
19 include that in our strategic discussion tomorrow.  
20 I need an over the horizon back scanner radar here.

21 (Referring to audience location.)

22 MS. BROHL: If I could drop in, I just wanted  
23 to add to what Ed said in terms of the membership  
24 list. I don't know --

25 CHAIRMAN SKINNER: Helen, you've been with

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1 this crowd long enough, you have to come up to the  
2 microphone, or we won't listen to you.

3 MS. BROHL: Helen Brohl. I just wanted to add  
4 to what Ed Welch was saying in terms of the content  
5 of the membership. I don't know how it's viewed,  
6 then certainly the federal partners are hugely  
7 important, but they don't constitute the  
8 stakeholders, necessarily. I mean, they may be  
9 users and important ones, but the Army Corps of  
10 Engineers is not necessarily going to be there  
11 representing the interests of the commercial  
12 maritime industry. They certainly understand the  
13 value of it. I just mentioned that, too. Thank  
14 you.

15 CHAIRMAN SKINNER: Thank you, Helen. Any  
16 other comments?

17 MR. DASLER: Tom? Well, I guess -- I saw in  
18 one of the Z-grams, I guess, it's a part of it, is  
19 the bathymetric data sets is going to be part of  
20 the IOOS and bringing in data from some of the IOOS  
21 efforts, I think I saw that in there.

22 ZDENKA WILLIS: That's what's Tom thought  
23 about the IOOS dating service, and that was really

24 Paul Seri's comment from California. We were able  
25 to -- and I put those collaborative projects on.

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1 We were able to get that going. The real effort  
2 and the real heavy lifting is, in fact, done in the  
3 executing office in NOAA, which is Steve Barnum's  
4 group, the Office of Coast Survey and, in fact,  
5 Roger Parsons in the Integrated Intercoastal  
6 Mapping has really taken that one on. And so from  
7 my perspective, I'm just kind of doing the  
8 highlights now. But again, once we can -- I don't  
9 want -- I want to make, you know, we didn't  
10 reorganize NOAA entities underneath IOOS, and that  
11 was for -- done very purposely so that we aren't  
12 creating something outside that said, you know our  
13 missions are your missions. So really the heavy  
14 lifting is done -- all the lifting is done where it  
15 should be done in NOAA, and that's within our  
16 Office of Coast Survey and they've taken off. And  
17 not only do we have California, I think, we also  
18 have state of Washington and Oregon are looking to  
19 come in and so -- and we were part of the  
20 interagency working group meeting last week under  
21 the IOCM. Again, so we don't have -- like we have  
22 talked before -- CORS versus IOOS. We certainly  
23 don't want IOOS CM and IOOS to get into that  
24 discussion, so we're making sure that we're very  
25 closely linked in NOAA that, you know, that that is

1 a full part of this whole national picture.

2 MR. DASLER: Just a plug, Oregon's sea floor  
3 mapping workshop is coming up March 18th and 19th  
4 in Corvallis.

5 CHAIRMAN SKINNER: Anything else before we  
6 move on to Tom's presentation or overview summary?

7 CAPTAIN JACOBSEN: Just a short what we're  
8 doing in Long Beach story. We have a few things  
9 going in Long Beach which are kind of interesting.  
10 We're working with NOAA, Scripps, Walpole and some  
11 the local Port of Long Beach surveyors on several  
12 projects. Just a little background. I think the  
13 biggest challenge for all the ports and the pilots  
14 are the bigger ships that keep coming in. Our  
15 largest container ships now are the 8200 TEU ships.  
16 They're 1100 feet long, 140 feet wide and about 43  
17 feet deep, and that's because we have some  
18 restrictions for the channel and we're going under  
19 bridges and we clear the bridge by a couple feet.  
20 So big ships going down tight channels.

21 The biggest tankers are the 300,000 ton  
22 tankers, 1200 feet long, 200 feet wide. And the  
23 deepest draft right now is restricted to 64 feet.  
24 So interkeel clearance is critical in these. And  
25 we're going to take care of some shoals, and B.P.

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1 is going to start loading down to 69 feet deep. We  
2 get on board the big ships outside the break  
3 water -- the big ships. We get on board about five  
4 miles outside the break water and we get into a  
5 channel and we're restricted as we approach Long  
6 Beach. The critical problems with these big  
7 tankers are southerly swell for us. And we're on a  
8 northerly heading and we can start pitching the  
9 ship and we can use up all the interkeel clearance  
10 and actually touch bottom.

11 So working with Scripps and NOAA, we wanted to  
12 come up with some modeling programs and model when  
13 we have the bad swell for us and we can have a go  
14 and no-go alarm system kind of, sort to speak. And  
15 every other swell doesn't hurt us too bad, but the  
16 southerly well in a long period affects these  
17 ships. We want to know before we get caught in the  
18 channel where we can't bail out. So that's a good  
19 project to work on.

20 Another project is we're upgrading our ports  
21 system this year with Walpole (ph) and then NOAA,  
22 of course. We want to work on alarm system for  
23 when predicted tide is different than real tide, so  
24 somehow have that alarm us, so that affects our  
25 transits under the bridge.

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1 MR. DASLER: RTK GPS.

2 CAPTAIN JACOBSEN: Yep. And then all this is  
3 being transmitted in different ways out to our  
4 carrier board laptop computers, and that's our high  
5 precision navigation systems, so it's all kind of  
6 coming together.

7 CHAIRMAN SKINNER: Sounds really interesting.

8 CAPTAIN JACOBSEN: It's all good stuff.

9 CHAIRMAN SKINNER: Any questions or comments?  
10 Anyone want one for their own report?

11 MR. DUNNIGAN: Do I want one of his computers?  
12 Yeah.

13 CAPTAIN JACOBSEN: He will charge you.

14 CHAIRMAN SKINNER: One of the systems.

15 MR. DUNNIGAN: Cool.

16 CHAIRMAN SKINNER: Thanks, Tom.

17 CAPTAIN JACOBSEN: Yep.

18 ZDENKA WILLIS: You're welcome.

19 CHAIRMAN SKINNER: Thanks, Zdenda, why, of  
20 course.

21 MR. DUNNIGAN: You didn't brief out on ocean  
22 U.S. changes.

23 ZDENKA WILLIS: I did not. Can I?

24 MR. DUNNIGAN: Let me just make sure. Many of  
25 you are familiar with an organization called

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1 Ocean.US. It's been a part of IOOS for a long  
2 time. It is the group that did the IOOS  
3 development plan and the second IOOS development  
4 plan. It's essentially an interagency body, but it



5 really developed a strong personality of its own.  
6 The IWGOO, Interagency Working Group on Ocean  
7 Observations -- as Zdenda said, I chair that -- has  
8 been looking at Ocean.US.

9 And we've made some decisions that at the  
10 agency level we think that Ocean.US probably  
11 doesn't have a strong of role to play in the future  
12 as it's played in the past, so there has been some  
13 structural changes. The executive director is  
14 leaving at the end of this month. And we're going  
15 to be moving towards probably a much smaller staff,  
16 we're not exactly sure what they're going to be  
17 doing. It may be that Ocean.US will go away and we  
18 will just keep the focus on the the agencies  
19 themselves, but we have a couple of months to try  
20 and work that out. So I just want all of you that  
21 have some familiarity with Ocean.US if you had any  
22 questions about it or heard stories what are they  
23 doing at Ocean.US. It's certainly morphing into a  
24 different kind of body that it's been, and it may  
25 not have a continuing role at all. But that's sort

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1 of what the status is. I just wanted to mention  
2 it.

3 CHAIRMAN SKINNER: Great. Thank you. Any  
4 other comments? Great? We're all set.

5 We have one last public comment period, just  
6 to check to see if anyone would like to make a  
7 public statement? Everyone is looking very

8           tight-lipped. What's the formal process? Do we  
9           leave the comment period open until the advertised  
10          time or --

11           MS. HESS: I don't -- I mean, I don't think  
12          so. There's nobody back there and there's no check  
13          marks. Let me just check the page and make sure  
14          nobody checked it out and they're out in the  
15          hallway.

16           MR. DASLER: While we're waiting, I'll make  
17          one more comment.

18           CHAIRMAN SKINNER: He's full of energy over  
19          here.

20           MR. DASLER: The case of the 69-foot ships  
21          approaching L.A., this is the classic example of  
22          where we need to be going in the future. Dave  
23          Doyle made a great presentation at the field  
24          procedures workshop talking about how the people  
25          with -- it's not going to be too far out where

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1          you're going to have a GP receiver the size of your  
2          cell phone and you can navigate around at five  
3          centimeters, so I mean, that's where things are  
4          going and we need to be looking that way.

5           In the case of the ships going into L.A. Long  
6          Beach, if that channel is surveyed to a very high  
7          precision relative to ellipsoid charts and  
8          converted to that and then they have the receivers  
9          on there, you will have the realtime observation.  
10         You will know realtime how much your ship is moving

11 around, you'll know, you know, if you're getting  
 12 shallow water draft effects and you start getting  
 13 into the channel and you adjust your speeds. I  
 14 mean, you'll be able to navigate right on it. And  
 15 that's really where we're going and we need to be  
 16 looking that way.

17 CAPTAIN JACOBSEN: That's good. That's good.

18 CHAIRMAN SKINNER: We do have one public  
 19 comment, Bahar Barami from the Volpe Transportation  
 20 Center.

21 BAHAR BARAMI: Thank you, Tom. Bahar Barami.  
 22 I would like to just, you know, make it very brief,  
 23 an informal comment about the study we're  
 24 conducting. For NOAA to assess the -- to connect  
 25 the formal benefit cost analysis for the -

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1 essentially the selected number of products,  
 2 electronic chart systems and realtime tide and  
 3 current systems, and it's a rather rigorous process  
 4 but also rather time consuming and difficult  
 5 because we really don't have good data in terms of  
 6 quantifying the benefits as well as the costs.  
 7 Costs are a lot easier to quantify. So if you're  
 8 doing a whole range of impacts, estimate terms for  
 9 a broad spectrum of users, from commercial, all  
 10 types of commercial users, passengers, as well as  
 11 cargo and recreational users, fishing vessels, as  
 12 well as military, you know, vessels, search and  
 13 rescue. And then research and development, R & D

14 type benefits.

15 So, in essence, the reason I came here,  
 16 Barbara invited me -- and I'm very grateful for  
 17 having participated in this -- is to really elicit,  
 18 your help. I'm going to be calling on a lot of  
 19 you. Because you are the front-line users and  
 20 experts. And you know what the issues are, you  
 21 know what the impact is. What you're essentially  
 22 trying to do is to assess the impact of charts, and  
 23 I believe that the impact is horrendously  
 24 beneficial to the nation at all levels, but we  
 25 really need to use our rigorous benefit cost

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1 analysis to quantify this.

2 And I'm going to be -- I was talking to the  
 3 port pilots and just talked to the Captain  
 4 Jacobsen. How are -- to what extent can we measure  
 5 the way we are pair off having some of these  
 6 technologies than if we relied on alternatives?  
 7 Because we're going by the OMB requirements for  
 8 evaluating the whole range of alternatives to the  
 9 products that we are -- the products of the program  
 10 that we are evaluating, so we're looking at paper  
 11 charts. The baseline is not having anything. The  
 12 baseline is having paper charts, draft charts and a  
 13 whole range of non-NOAA products.

14 So that's what we're doing. That's why I will  
 15 be asking a lot of questions of a lot of you at an  
 16 informal level. We're forming expert group

17 meetings. We're not calling them focus groups  
 18 because in order to run focus groups. We will have  
 19 to get OMB clearance and we're not running focus  
 20 groups, but we're having some expert group meetings  
 21 in Boston. I work out of the Boston area. But we  
 22 have that conceptual framework for the benefit cost  
 23 analysis and by the end of the summer, the study  
 24 will have been completed. But I'll be calling on a  
 25 lot of you and I really appreciate having access to

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1 this wealth of knowledge and information. Thank  
 2 you.

3 MR. WELCH: Before you go -- before you  
 4 leave, .

5 BAHAR BARAMI: Yes, sir.

6 MR. WELCH: Thank you. But I suspect some of  
 7 us aren't very familiar with the Volpe National  
 8 Transportation Center so could you take a minute or  
 9 two to explanation what that institution is?

10 BAHAR BARAMI: Sure. We are a -- essentially  
 11 a research lab. We are part of the -- part of the  
 12 US DOT, U.S. Department of Transportation, and one  
 13 of the agents administration within US DOT is --  
 14 has recently been renamed, RITA, Research and  
 15 Innovative Technology Administration, which is in  
 16 Washington, and we are -- and that's our parent  
 17 agency, so we are an agency within RITA, which is  
 18 an administration within -- like FAA and FL  
 19 Highway, RITA is one of the administrations within

20 US DOT. We are a free service agency, but we're  
21 all Fed, so we do conduct and we are all mostly --  
22 we all have academic backgrounds and so on, so we  
23 write proposals and we conduct research.

24 I'm doing a project for Helen Brohl for CMTS,  
25 Corps of Engineers hired us to do the -- to assess

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1 for the MTS assessment of the challenges at all  
2 levels, the infrastructure modernization channel,  
3 just a passage. So we do free for service research  
4 but we are very much customer-focused but also kind  
5 of independent, in the sense that we really think  
6 independently rather than just rehashing some of  
7 the things that the government wants. Sometimes we  
8 create problems because of asking difficult  
9 questions.

10 MR. WELCH: Thank you.

11 CHAIRMAN SKINNER: Other questions or  
12 comments? Thank you.

13 BAHAR BARAMI: Thank you.

14 CHAIRMAN SKINNER: Any other comments? Let's  
15 see. If I would have known that this involves so  
16 much paper...I think one of the things that --  
17 going over the schedule for tomorrow and, Barbara,  
18 if you can be there to correct me if I'm wrong,  
19 there's a schedule change and the bus leaves at  
20 nine a.m. or is that?

21 MS. HESS: I think it's 9:30. The bus will be  
22 there at 9:30. Danielle has the information.

23 CHAIRMAN SKINNER: Okay. Danielle, if you  
24 could.  
25 MS. DANIELLE: We're scheduled to 9:30.

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1 Everyone needs to meet out in the front of the  
2 building closer to the street. The bus cannot pull  
3 in so they will pick us up from the street. They  
4 will out there waiting for us. We will ship by  
5 2:30 or three.  
6 CHAIRMAN SKINNER: We know people have flights  
7 to catch, so we're going to try to keep it to that  
8 schedule. Bruce, are you doing the budget  
9 discussion?  
10 BRUCE VOGT: Budget is tomorrow?  
11 CHAIRMAN SKINNER: There's an FY-10 budget  
12 thing on the agenda.  
13 BRUCE VOGT: Right. We're going to talk about  
14 some of those, some of the things that are in the  
15 planning process.  
16 CHAIRMAN SKINNER: So tomorrow will include a  
17 tour of the integrated bridge on the Norweigan Sun  
18 and, Minas, we have you to thank for that. I think  
19 everyone is looking to that, brand new vessel.  
20 CAPTAIN MYRTIDAS: Is the fleet. This is what  
21 you guys...  
22 CHAIRMAN SKINNER: Special.  
23 CAPTAIN JACOBSEN: We ordered the new one.  
24 CHAIRMAN SKINNER: So Minas will be submitting  
25 a grant to update the system, I think. Then

1       Admiral West will be doing the power point  
2       presentation for the science advisory board, and I  
3       think that will be useful for us to see and also  
4       for him to get some feedback. The budget update,  
5       and then we need to spend sometime talking about  
6       the strategic plans for this group and where we're  
7       headed over the next couple years, so it's a fairly  
8       busy day tomorrow.

9               I would also like to have just a quick  
10       members-only meeting, panel members, at the --  
11       immediately at the conclusion of the public session  
12       today. I heard a gasp over here.

13              MS. HESS: Please bring your identification  
14       for the visit to the ship tomorrow. The  
15       identification, driver's license or passports that  
16       you have provided to me to get clearance for the  
17       ship visit.

18              ADMIRAL WEST: Where are we going, Cuba?

19              MR. DUNNIGAN: Shh.

20              CAPTAIN MYRTIDIS: Did you not hear, the port  
21       has expended 22 million dollars that, alone should  
22       tell you what to expect domestic. So I really  
23       would like us to leave here by 9:30, not try get  
24       together at 9:30. There's only 10, 15 minutes to  
25       go to the port, but I think we're going to use the



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1 time to clear through security. So when the ship  
2 is clear for the outgoing passengers, then we can  
3 go straight, I mean, so I would appreciate it if we  
4 are departing at 9:30 in the morning.

5 CHAIRMAN SKINNER: Your wish is our command.  
6 Change to 9:15.

7 MS. DENTLER: Meet at 9:15. We will leave at  
8 9:30.

9 CHAIRMAN SKINNER: Right.

10 MS. DENTLER: With our thumb in our eye.

11 CHAIRMAN SKINNER: You didn't have to put it  
12 quite that way, but....

13 ADMIRAL WEST: Touche.

14 CHAIRMAN SKINNER: Read between -- meet  
15 between -- is there like a coffee place or --

16 MS. DENTLER: There is, the little --

17 CHAIRMAN SKINNER: Breakfast, bar.

18 MS. DENTLER: There's not a bar, where you  
19 guys had dinner last night, there's a place to get  
20 coffee. It's like a little deli right there.

21 CAPTAIN MYRTIDIS: There is a coffee maker in  
22 the room.

23 CHAIRMAN SKINNER: Let's keep it simple.  
24 Let's meet.

25 MR. ARMSTRONG: Is that by the concierge?

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1           CHAIRMAN SKINNER: Right by the concierge desk  
2 at 9:15 ready to go, okay.

3           ADMIRAL WEST: That's easier then.

4           MS. HESS: Do you want five minutes to -- you  
5 wanted to have a meeting after this?

6           CHAIRMAN SKINNER: Yeah, can we meet here?

7           MS. HESS: Yes.

8           CHAIRMAN SKINNER: So we'll adjourn the  
9 meeting and -- yes, Jack?

10          MR. DUNNIGAN: If you're ready to sort of wrap  
11 it up, let me just have a minute. I have to head  
12 home tonight, and so, have a great day tomorrow,  
13 Minas, thank you very much, I really wish I could  
14 have made it, but I've got some other things going.  
15 So again, thank you all for taking your time and  
16 being here and for everything that you do. As we  
17 said at the beginning, as Tom said, this is  
18 something that is important to the Vice Admiral,  
19 it's important to me and we're glad to be able to  
20 listen and learn, which is what we do whenever we  
21 get together. I hope you all will do something  
22 really nice for Barbara Hess because she's just a  
23 great leader and trooper for all of us, and I  
24 really appreciate everything that she's done for  
25 such a long time. So thank you, Barbara.

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1           And I'll be seeing you. If I don't see you  
2 around town the next time we get together so look  
3 forward to it, but I just want to say thank you

4 very much and wish you well.

5 CHAIRMAN SKINNER: Once again, thank you for  
6 the extraordinary amount of time you put into this  
7 panel. Can I have a motion to adjourn?

8 MR. DUNNIGAN: I move.

9 MR. WELLSLAGER: Second.

10 CHAIRMAN SKINNER: Second? Any discussion?  
11 All in favor?

12 (All responded aye.)

13 CHAIRMAN SKINNER: Any opposed, any  
14 abstentions?

15 (No responses.)

16 CHAIRMAN SKINNER: Thank you very much.  
17 Okay. That should not have been adjournment. It  
18 should have been recessed until tomorrow at 9:15 in  
19 the morning. Sorry.

20 (Meeting concluded at 4:00 p.m.)  
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23  
24  
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1 REPORTER'S CERTIFICATE

2 STATE OF FLORIDA ) COUNTY OF BROWARD )

3 I, Glenda M. Powers, Registered Professional  
4 Reporter, Certified Realtime Reporter, and Notary Public  
5 in and for the State of Florida at large, certify that I  
6 was authorized to and did report said proceedings in

7 stenotype; and that the foregoing pages, Volume I, Pages  
8 1 - 151 and Volume II, Pages 152 to 330, inclusive, are  
9 a true and correct transcription of my shorthand notes  
10 of said proceedings.

11 I further certify that said proceedings were taken  
12 at the time and place hereinabove set forth and that  
13 taking of said proceedings was commenced and completed  
14 as hereinabove set out.

15 I further certify that I am not a relative or  
16 employee of any attorney or counsel of party connected  
17 with this action, nor am I financially interested in the  
18 action.

19 The foregoing certification of this transcript does  
20 not apply to any reproduction of the same by any means  
21 unless under the direct control and/or direction of the  
22 certifying reporter.

23 Dated this 20th day of March, 2008.

24

25 Glenda M. Powers, RPR, CRR, FPR

1

1 HYDROGRAPHIC SERVICES REVIEW PANEL

2

HELD: Doubletree Grand Hotel, Biscayne Bay, Miami

3

DATE: Friday, March 7, 2008

4

AGENDA: Public meeting

5

TIME: 8:00 a.m. to 4:00 p.m.

VOLUME I of II

6

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7

CHAIRMAN: Tom Skinner, Durand & Anastas  
Environmental Strategies, Inc.

8

VICE CHAIR: Edmund B. Welch, Maritime & Ocean Policy

9

PANEL MEMBERS PRESENT:

10

Captain Thomas Jacobsen, Jacobsen Pilot Services, Inc.

11

Michael W. Szabados, Director, CO-OPS

12 Captain Sherri Hickman, Houston Pilots Association  
13 Captain Minas Myrtidas, Norwegian Cruise Line  
14 Matthew J. Wellslager, South Carolina Geodetic Survey  
15 Elaine L. Dickinson, Boat Owners Association of the U.S.  
16 Captain Steven R. Barnum, Director, OCS  
17 Jack Dunnigan, Assistant Administrator, NOS  
18 Jon L. Dasler, David Evans & Associates, Inc.  
19 Dr. Gary A. Jeffress, Texas A & M University  
20 Andy Armstrong, Co-Director JHC  
21 Rear Admiral Richard D. West, USN (Ret.); CORE  
22 Adam McBride, Lakes Charles Harbor & Terminal District  
23 Larry Whiting, Terra Surveys, LLC  
24 David B. Zilkoski, Director, NGS  
25

2

1 CHAIRMAN SKINNER: I want to call the meeting  
2 to order. My name's Tom Skinner. I'm the acting  
3 chair of the Hydrographic Services Review Panel.  
4 A couple things I would like to go over.  
5 First, the evacuation directions in case there's an  
6 emergency. In case of emergency, please exit.  
7 Make a left out of the room, walk down the hall,  
8 take the next left out of the double glass doors  
9 and go down the elevator and straight out to the  
10 exit signs.  
11 MR. DUNNIGAN: Elevator?  
12 CHAIRMAN SKINNER: Escalator. The restrooms  
13 are located to your left out of the room past the  
14 glass double doors before you get to the elevators

15 and to your left. And there will be a sign to the  
16 restrooms.

17 I also need to read this statement about the  
18 Hydrographic Services Review Panel. The HSRP is  
19 governed by the Federal Advisory Committee Act and  
20 was established by the Hydrographic Services  
21 Improvement Act Amendments of 2002.

22 The Panel is charged with advising the NOAA  
23 administrator on matters specified in the  
24 Hydrographic Services and Improvement Act,  
25 specifically related to hydrographic services.

3

1 In a nutshell, hydrographic services are those  
2 services provided by three program offices within  
3 NOAA. That's the National Geodetic Survey, the  
4 Center for Operational Oceanographic Products and  
5 Services and the Office of Coast Survey.

6 The panel membership consists of fifteen  
7 voting members. These are special government  
8 employees appointed based on their particular  
9 expertise. Members of the panel do not represent  
10 the organizations or the entities they are employed  
11 by. But again, they are on the panel by the mere  
12 fact of their particular expertise. Panel members  
13 serve four-year terms.

14 First order of business then is to introduce  
15 someone who actually needs no introduction:  
16 Captain Minas Myrtidas of the Norwegian Cruise  
17 Line. Captain Myrtidas has been a key member of

18 the HSRP since its inception and was instrumental  
19 in bringing this meeting to Miami.

20 We certainly appreciate the sporting  
21 hospitality that Norwegian Cruise Lines has  
22 provided us here. So, Captain.

23 CAPTAIN MYRTIDIS: Thank you, Tom. Good  
24 morning, everybody. I just want to take a few  
25 brief moments, and if you allow me, I'm going to

4

1 put my sail hat on and welcome the Panel to the  
2 cruise capital of the world: The Port of Miami.  
3 We are excited to have you here, and we are most  
4 excited to have you with us tomorrow on one of our  
5 ships, the Norwegian Sun.

6 I would take now the opportunity turn and  
7 introduce you to a gentleman who is a very  
8 important member of our community here, and he took  
9 time out of his very, very busy schedule to have to  
10 say hello to all of us all.

11 Ladies and gentlemen, Mr. Bill Johnson. He's  
12 the port director for the Port of Miami. Mr.  
13 Johnson.

14 (Applause.)

15 MR. JOHNSON: Thank you, Captain. Good  
16 morning, everyone. First, it's a great honor for  
17 us, not just myself as our port director for the  
18 Port of Miami, but we as a community, and our  
19 Mayor, the Mayor of Miami-Dade County, Carlos  
20 Alvarez, to welcome all of you and your important

21 work, your meeting here in our community. We're  
 22 very honored and we're very pleased that you have  
 23 chosen Miami-Dade County and, of course, the  
 24 City of Miami in which to convene and have your  
 25 work, so thank you very much, first of all, for

5

1 that, we appreciate you being here in your  
 2 business.

3 I'm just going to take a few minutes of your  
 4 time. I know you got a full agenda, a couple  
 5 things I sort of like to layout for you. Anyone  
 6 that lives in Miami-Dade County probably knows  
 7 because they read the press and I'm constantly or  
 8 oftentimes in the press, my background in terms of  
 9 public service. And I am a public servant.

10 I've been in public service about 28 years  
 11 now. I started in this community right out of  
 12 graduate school; a kid from the midwest educated in  
 13 the south. But I've spent all of my professional  
 14 life in public service here in Miami-Dade County.  
 15 Literally within the last, you know, 15 years  
 16 within a seven-block area, many of the things that  
 17 you see are things that I've worked on.

18 Our nation's largest and probably one of the  
 19 best performance centers in the world, we think it  
 20 will rate in the top five, right across the street  
 21 is one of my projects. I took that over when that  
 22 project was very troubled and behind schedule and I  
 23 did a workout plan on that project.



24 I also was instrumental in building the  
25 American Airlines Arena where the Miami Heat plays

6

1 on the waterfront. Truthfully, I would have  
2 preferred that it would not have been built on the  
3 waterfront, but it was, and, of course, today that  
4 adds to the congestion of the port, which I've been  
5 a port director now for almost two years.

6 I love being in public service. I love  
7 serving the public. This is just a great, great  
8 diverse community in which we live. I'm used --  
9 quite honestly, have been probably for the last 15,  
10 18 years -- as trouble shooter, as what we call the  
11 problem-solver. I'm not a boy genius. I'm just a  
12 hard-working guy who's willing to work, if you  
13 will, 12, 14 hours a day, and that's what the Port  
14 of the Miami requires. It requires a 12-hour day  
15 at minimum, and I'm willing to work at least six to  
16 seven days a week.

17 We have a great port. It's one of the leading  
18 ports in our nation. It's something that I'm very  
19 proud of, to be the port director. I stepped into  
20 the port 18 months ago. Quite honestly, for the  
21 most part I'm known for being pretty honest, pretty  
22 blunt. When I stepped into the Port of Miami,  
23 which is a public institution, publicly owned, it  
24 was in deep trouble, a very troubled port. We've  
25 worked hard as a team over the last 18 months; now,

1 my 19th month that I'm in, to assess the issues, to  
2 assess the problems and put together a correction,  
3 a recovery plan.

4 We are, of course, have a very, very strong  
5 legacy, a wonderful history, of being the cruise  
6 capital of the world. What does that really mean?  
7 What it means is that Norwegian Cruise Line started  
8 at the Port of Miami 41 years ago this past  
9 December. Forty-one years ago NCL started at our  
10 port. Ted Anderson, the founder of Carnival,  
11 started at our port 40 years ago, Carnival Cruise  
12 Line, today, Carnival Corporation.

13 Of course, as a community in Miami-Dade  
14 County, we're extremely honored and pleased that  
15 three of the largest cruise lines in the world have  
16 their world headquarters here in Miami-Dade County.  
17 Of course, Carnival Corporation and Norwegian  
18 Cruise Line and Royal Caribbean's offices are  
19 actually on our port. They're literally  
20 headquartered on the Port of Miami.

21 What does cruise capital of the world mean?  
22 It means that this year we'll deal with almost 4  
23 million passengers. It means that the  
24 Port of Miami has continually, decade after decade,  
25 been the number one port in our world in terms of

1 numbers. You probably already know that less than  
2 17 percent of the American population has ever  
3 taken a cruise. It's a very small number. And, of  
4 course, if you look at the statistics, last year 45  
5 percent of those numbers; 45 percent of the  
6 Americans who took a cruise did so out of one of  
7 three ports here in this state. Of course,  
8 Port of Miami, number one; Port of Canaveral,  
9 number two; and Port Everglades, 30 miles up the  
10 street, port number three.

11 It's a business. It's a very, very  
12 competitive business. It is a very tough business.  
13 The Port of Miami is a department of county  
14 government, one of the largest county governments  
15 in America. In fact, county government which has a  
16 budget typically as large as 16, 17 or 18 U.S.  
17 states. It's a big, big government.

18 And I don't need to tell you that often times  
19 with government comes bureaucracy. My job is to  
20 cut through that bureaucracy, cut through that red  
21 tape and make things happen like a private business  
22 would.

23 The Port of Miami is just like a private  
24 business. We must completely sustain ourselves  
25 under revenues generated at our port. We must be

1 efficient, we must be clean, moderate and customer

2 friendly. It has been a tough challenge over the  
3 last 18 months to first not only assess the issues  
4 but to put together a recovery plan.

5 There is no subsidy. There is no general  
6 funding support. We have to literally depend upon  
7 the revenues created, if you will, from our cargo  
8 and cruise operations, as well as some of the  
9 federal or state grant monies that we receive. The  
10 challenges are huge.

11 I will tell you, since 9-11, since the  
12 tragedies of September the 11th, the Port of Miami  
13 now has gone from spending 4 million a year on  
14 security to well over 20 million. The cost for  
15 security at our port has almost, truthfully,  
16 bankrupt the port. I will -- the port will spend  
17 in excess of 20 million this year just on  
18 operations.

19 In addition, my cruise and cargo partners will  
20 spend millions and millions more. I will tell you  
21 that the Port of Miami -- a little island of 518  
22 acres right outside our door -- is probably the  
23 most secure environment anywhere in our community,  
24 it really is, and yet we're spending more and more.

25 Where are we headed? Well, the Port of Miami

10

1 today has eight major cruise lines that call upon  
2 our port, eight partners, including NCL. Again,  
3 they will bring this year close to 4 million  
4 passengers. They represent, if you will, 28

5 different ships, some of the biggest and best in  
6 the world. You can't rest on your laurels. You  
7 can't just rest on the fact that we're the leading  
8 cruise port.

9 Where we're taking the Port of Miami is trying  
10 to increase the number of brand. We're trying to  
11 increase not only the numbers, but we're trying to  
12 obviously make our Port the number one port, not  
13 just in facilities and amenities, but also the best  
14 port anywhere in our country, in the world, in  
15 terms of customer service.

16 We recently partnered -- and it's all about  
17 partnerships. That's why I'm here this morning, to  
18 just spend a few minutes with you to talk about our  
19 port. I guess we could say it's sort of the  
20 marketing aspect of it.

21 We partnered with one of major universities  
22 here in the State of Florida. It's located here in  
23 our community, Florida F.I.U., Florida  
24 International University. And I'm not shy. On a  
25 flight to Tallahassee, our state capital, I was

11

1 talking with the president of F.I.U. and we got his  
2 support, we got, if you will, free customer  
3 training from his university, and it's one of the  
4 top programs in America for hospitality. We got  
5 free customer training for all port employees, all  
6 411 women and men who work for me at the port.

7 Customer service is important. And what I'm

8        stressing to you is the need not just to have  
9        modern facilities, because you come over today and  
10       see the Port of Miami, you'll see that we have some  
11       of the most modern cruise facilities in the  
12       world -- not just in Florida or in America -- in  
13       the world.

14           Last fall we opened up 84 million worth of -  
15       in two facilities, 84 million dollars worth of  
16       facilities for Carnival, state-of-the-art,  
17       second-to-none, anywhere in the world. But you  
18       can't just have modern facilities and safe and  
19       secure facilities. You must have facilities which  
20       they're actually efficient, that they're clean and  
21       that they have great customer service.

22           We are really focused on the bottom line.  
23       We're focused on profitability so we can plow that  
24       back into, if you will, our services, plow that  
25       back into our facilities. So the cargo is the next

12

1       aspect. Cruise is doing well.

2           Cargo's the next major aspect of it. We've  
3       had a very, very tough several years. And what had  
4       been a very robust economy worldwide,  
5       internationally, in cargo, the Port of Miami in the  
6       last two-and-a-half, three years has lost 17  
7       percent of its cargo volume, 17 percent. We're  
8       talking millions and millions.

9           I should also tell you that the Port of Miami,  
10       if it's a business, is a 16-billion-dollar-a-year

11 business. In 2006, we generated 16 billion to the  
12 economy. The President of the United States  
13 understands that well. I was port director for  
14 about three weeks when President Bush, the White  
15 House called, the president wanted to come visit.  
16 It's a pretty great honor when your president wants  
17 to come visit your port.

18 But the bottom line is and what the president  
19 wanted to emphasize, obviously, was that - the  
20 importance of free trade, the importance of, if you  
21 will, the maritime industry, and the Port of Miami  
22 represents that.

23 But on the cargo side, when you're talking a  
24 drop of 17 percent since 2005, you're talking not  
25 just millions, you're talking billions of impact on

13

1 the negative side. It's a huge problem. And we  
2 have been hard at work trying to understand why  
3 we've lost business. You can't correct the problem  
4 if you don't understand what has led to that  
5 problem. Aggressive management, proper marketing,  
6 congestion, on port, off port. A number -- we  
7 were, frankly, our cost was too high. We weren't  
8 cost-competitive. There were consolidations in the  
9 industries. There are multiple reasons why.

10 And what it has resulted in, if you will, is a  
11 very, very, again, I think, a very prudent well  
12 thought out game plan to move us ahead. Recently,  
13 a few months ago, with great leadership from our



14 state government, through our State Department of  
15 Transportation, local government, including the  
16 county and city and the port together, within the  
17 year we'll embark on a one-billion-dollar tunnel  
18 literally here right outside our window, right  
19 outside our door here.

20 This one-billion-dollar tunnel will literally  
21 connect the interstate system under Biscayne Bay to  
22 the Port of Miami, two tubes, four lanes, one  
23 highway opening in 2012. It's a reality. It's  
24 funded. It's got a green light, it's a go.  
25 Obviously, we're extremely concerned about the

14

1 sensitivity to the water, to our beautiful bay, and  
2 to, if you will, all the environmental issues.  
3 It's a very, very important, if you will, aspect of  
4 it. The tunnel is our future. The tunnel will  
5 allow this port to be able to grow substantially.

6 The next piece of it and, of course, we're  
7 very, very thankful in terms of the most recent  
8 legislation passed, the last water bill, the  
9 Port of Miami is authorized again to go to Phase  
10 III in terms of deepening of the harbor. We need  
11 to be able to do this in a very sensitive way,  
12 again being very, very sensitive to the environment  
13 in which we live and which surrounds us.

14 The Port of Miami, by 2015, when the Panama  
15 Canal improvements are complete, the Port of Miami  
16 will be the depth of 52 feet at its entrance and 50



17 feet in the working harbor, making it one of three  
18 ports on the east coast at that depth, allowing the  
19 port not only to double but almost triple the  
20 amount of cargo volume it does. Cargo is  
21 significant.

22 Again, let me emphasize the Port of Miami is  
23 the second largest economic engine in our region.  
24 It generated in 2006 16 billion, 110,000 jobs. So  
25 the importance of balance -- and I can stress

15

1 this -- the importance of balance; the importance  
2 of understanding not only where you are today, but  
3 also where you're headed, and to do so in a  
4 partnership with everyone, with environmental  
5 groups, with organizations like NOAA, on and on and  
6 on, so that we are doing things the right way,  
7 doing things, if you will, in partnership.

8 Where we are today is what I call again full  
9 implementation of a recovery plan. I'm soon to  
10 announce -- in fact, it's been announced, I  
11 announced it last week with permission from the CEO  
12 of NCO -- we have reached with the Port of Miami a  
13 long-term volume agreement with Norwegian Cruise  
14 Lines that will result in a development of about  
15 100 million of new cruise facilities on the  
16 waterfront, again, outside the door. Those  
17 facilities will open sometime in late 2011, and  
18 again, will allow for NCO to further grow and  
19 become their major premier facility in the

20 southeast of the United States. We are very, very  
21 honored that NCO has selected the Port of Miami to  
22 continue to grow and to prosper.

23 We are also excited, we're soon to announce  
24 two riveting announcements. The world's largest  
25 shipping line has married one of the other top

16

1 shipping lines in the world. It is consolidating,  
2 if you will, its operations in the southeastern  
3 United States at the Port of Miami.

4 Myrtidas AVM has partnered with one of the  
5 other top two shipping lines in the world. We will  
6 be announcing this very soon. It will represent a  
7 25-year-deal worth hundreds and hundreds of  
8 millions of dollars.

9 I'm also pleased that we've been able to soon  
10 announce a 30-year deal with one of the leading  
11 shipping lines in the state of Florida into the  
12 islands, the Caribbean, and Central America with a  
13 30-year deal, again, worth hundreds of millions of  
14 dollars. These are volume-based incentive  
15 agreements which are good for our port, they're  
16 good for the industry and, most importantly,  
17 they're good for our economy.

18 When we do the agreements, I'm extremely  
19 sensitive, again, to the issues of cleanliness of  
20 the yard. Issues of, again, environmental  
21 sensitivity. So when you look at this again, it's  
22 all about not just growth, it's about, if you will,

23 reasons growth, balance growth, making sure that  
 24 you have an open door.  
 25 I appreciate the opportunity to be with you.

17

1 I appreciate, I respect the work that you do. I  
 2 would like to, I guess, leave you with the thought  
 3 that while we're looking, obviously, as a business  
 4 to grow, again, we're not a profit center. Our  
 5 reason, the reason we exist, is to create wealth  
 6 for our economy, to create jobs, good-paying jobs.

7 If you didn't know, in the state of Florida,  
 8 our economy is driven by tourism and trade. Trade,  
 9 the Port of Miami, we're fortunate, we do business  
 10 with 250 ports and 100 countries around the world.  
 11 Next week is the largest convention in the world,  
 12 every single year, the largest convention in the  
 13 world for cruise, right here in our community.

14 We have a great port. We're blessed as a  
 15 state. We have 13 other great ports or 14  
 16 deep-water ports in our state. We're all focused,  
 17 if you will, in doing the right thing. And I can  
 18 assure you, as the director of the Port of Miami, I  
 19 am committed 'cause two of my folk are here today.  
 20 One will be on the panel, Becky Hope. I'm  
 21 committed to doing things the right way. I'm  
 22 committed to an open door, I'm committed to  
 23 partnership. We may not always agree, but we'll  
 24 always be willing to listen and we'll always, if  
 25 you will, do the things that are the right things,

1 not just for our port, but for our community, a  
2 community I take great pride in, a community which  
3 I just absolutely love to be a member of.

4 Thank you for listening, have a wonderful,  
5 wonderful day. And, hopefully, you will see  
6 something at the Port of Miami that you like. If  
7 you don't like, just let me know, just e-mail me.  
8 Thank you.

9 (Applause.)

10 CHAIRMAN SKINNER: Mr. Johnson, thank you for  
11 those remarks. That's a great way to kick off our  
12 meeting. Many of us have had the opportunity to  
13 look at some of your port facilities from our hotel  
14 rooms, and it's pretty impressive, and we look  
15 forward to having a close-up tour tomorrow, so  
16 thank you very much.

17 MR. JOHNSON: One thing I didn't say. On the  
18 last days of our dredge, this took us to 42 feet,  
19 the contractor doing the dredge had all kinds of  
20 PAP2 violations and we were cited. Today, in fact,  
21 it was just awarded this week by the board of  
22 county commissioners, approved a 2.2 million dollar  
23 mitigation, which I fully support, to rectify those  
24 sins from 1995.

25 Now, honestly, do I have 2.2 million? I

1 don't. Okay. If I were, you know -- to be honest  
2 with you -- if I had a private business, you would  
3 say I'm bankrupt. But it's a commitment. I'm  
4 going to borrow the money from the State Sunshine  
5 Fund, pay interest on it, and we're going to do it.  
6 You have to honor, okay, the commitments, and even  
7 those that go back to 1995. So thank you for  
8 listening. I appreciate your support.

9 CHAIRMAN SKINNER: Thank you very much.

10 MR. JOHNSON: Thank you.

11 CHAIRMAN SKINNER: This is a commemorative  
12 coin. It's 200 years.

13 MR. JOHNSON: Oh, great.

14 CAPTAIN SKINNER: Just to let you know, you  
15 can't use it for the 2.2 million.

16 MR. JOHNSON: We'll try. Thank you all very  
17 much. Have a good session, everybody. Anything  
18 you need at the port, you just let us know.

19 CHAIRMAN SKINNER: Thanks again. We're moving  
20 on to the administrative section, and I think  
21 Barbara Hess has been deputized to administer the  
22 oath of office for our new members.

23 MR. HESS: I am. I am. Could we get them on  
24 the phone? We need to dial, there's two outside  
25 people that weren't able to make it today. They're

1 going to be dialing in. If we could just dial  
2 that. I think it's 8, then the number.

3 (Panelist Captain James Weakley, Lake  
4 Carriers' Association, and Panelist Captain Ramon Torres  
5 Morales, Port of Las Americas Authority, were not  
6 present at the meeting.)

7 (Thereupon, a telephonic connection was made  
8 and the Panel continued as follows:)

9 TELEPHONIC VOICE: There are two parties in  
10 conference, including you.

11 CAPTAIN BARNUM: Good morning. This is the  
12 HSRP Services and Review Panel. Steve Barnum  
13 speaking. Who's on the line?

14 CHAIRMAN SKINNER: Good morning.

15 MS. HESS: Who was on the conference call?

16 CAPTAIN BARNUM: Weakley, Captain Weakley is  
17 on the phone.

18 MS. HESS: Captain Ramon Torres Morales is not  
19 on?

20 CAPTAIN BARNUM: No.

21 MS. HESS: No? Okay. He must not have been  
22 able to dial.

23 CHAIRMAN SKINNER: We're starting with the  
24 swearing in of the new members.

25 MS. HESS: Yes. Could the new members please

21

1 stand and raise your right hand? Thank you very  
2 much. Could you state your name?

3 MR. WELLSLAGER: Matt Wellslager.

4 CAPTAIN WEAKLEY: Captain Weakley.

5 MR. JEFFRESS: Gary Jeffress.

6 MR. WELCH: Ed Welch.

7 CAPTAIN JACOBSEN: Tom Jacobsen.

8 MS. HESS: And I need you to get your  
9 appointment affidavits and all together read the A,  
10 oath of office, on the appointment affidavit form.  
11 It's number A. It starts with "I will support."  
12 And you can all read together, please. Hold on.

13 (Thereupon, the Appointment Affidavit, A, Oath  
14 of Office, was read by all new members as follows:)

15 "I will support and defend the Constitution of  
16 the United States against all enemies, foreign and  
17 domestic; that I will bear true faith and  
18 allegiance to the same; that I take this obligation  
19 freely, without any mental reservation or purpose  
20 for evasion; and that I will well and faithfully  
21 discharge the duties of the office on which I am  
22 about to enter. So help me God."

23 MS. HESS: Could you all please sign on  
24 signature of appointee, and I'll pick those forms  
25 up. And I also need to pick up your

22

1 identification, so if you could have that out, I'll  
2 come around and get that. And you are now  
3 considered sworn-in members. I don't know if --  
4 Captain?

5 CAPTAIN BARNUM: Captain Torres?

6 MS. HESS: Do you need to go through that? He

7        did come.

8            CAPTAIN BARNUM:  Captain Torres?

9            CAPTAIN TORRES:  Hello?

10          CAPTAIN BARNUM:  Hello?

11          CAPTAIN TORRES:  Yes?

12          CAPTAIN BARNUM:  Yes.  We just went through

13        the oath of office and you came in the middle of

14        it.

15          CAPTAIN TORRES:  Yeah.

16          MS. HESS:  Could you read the oath of office,

17        sir?

18          CAPTAIN TORRES:  Sure, sure.

19          MS. HESS:  Just A and state your name, please,

20        and read it so we could hear it.  Thank you.

21          CAPTAIN TORRES:  Can you hear me okay?

22          MS. HESS:  Yes, sir.

23          CAPTAIN TORRES:  Okay.  I am Ramon Torres

24        Morales.  I do solemnly swear that I will support

25        and defend the Constitution of the United States

23

1        against all enemies, foreign and domestic; I will

2        bear true faith and allegiance to the same; that I

3        will take this obligation freely, without any

4        mental reservation or purpose of evasion; and that

5        I will well and faithfully discharge the duties of

6        the office on which I am about to enter, so help me

7        God.

8            MS. HESS:  If you could just sign that form

9        and send that to me, we can talk off-line on how to



10 get that to me. I'll give you a call. Thank you  
11 so much for calling in.

12 CAPTAIN TORRES: Thank you.

13 MS. HESS: Okay.

14 CHAIRMAN SKINNER: Congratulations --

15 CAPTAIN TORRES: Thank you very much.

16 CHAIRMAN SKINNER: -- to all of you.

17 CAPTAIN BARNUM: Are they staying for the  
18 meeting?

19 MS. HESS: For the voting. Ask if they could  
20 stay on, if they could stay on for vote. Did they  
21 already hang up?

22 CAPTAIN BARNUM: No.

23 MS. HESS: Okay.

24 CHAIRMAN SKINNER: The next item on the agenda  
25 is the election of officers, so if you both could

24

1 stay on the line that would be greatly appreciated.

2 CAPTAIN WEAKLEY: Will do.

3 CAPTAIN TORRES: Okay.

4 CAPTAIN BARNUM: Next on the agenda is the  
5 election. Now that we had the new members sworn  
6 in, is to elect the chair and vice chair.  
7 Currently, Tom Skinner is the acting chair and at  
8 their last meeting in Seattle, we had a voting  
9 sheet or candidates for Tom as chair and Ed Welch  
10 as vice chair. And certainly we can have write-in  
11 candidates, too, so...

12 We're not going to go to caucus or anything

13       like that. But what we have in Section B is the  
14       voting sheet, so if you would, please, take that  
15       out and write in who you vote for for chair and  
16       deputy chair and put your name and date of honor.  
17       This is the member agents, voting members.

18               ADMIRAL WEST: Tom, are we going to hear any  
19       more from the port people?

20               CHAIRMAN SKINNER: Yes.

21               ADMIRAL WEST: I've got a couple of questions.  
22       He was in a hurry, so...

23               CHAIRMAN SKINNER: While we're waiting, a few  
24       other things. One, if you could remember to turn  
25       off your cell phones or put them on mute, that

25

1       would be great.

2               As the panel members know, every meeting we  
3       struggle with how to have a meeting amongst us and  
4       not have some of us with our backs to the audience.  
5       We haven't figured out a way to correct that  
6       problem, so those of us here in the back row  
7       apologize for not facing you, but we just haven't  
8       figured out the logistics.

9               We also haven't figured out the logistics for  
10       lunch. There is a federal prohibition on providing  
11       a free lunch. I guess that doesn't exist, you  
12       can't do it. So we would very much like to have  
13       anyone who would like to stay for lunch with us to  
14       participate; unfortunately, there is a charge for  
15       that, and there will be someone to collect some

16 funds when we do have -- when we do break for  
17 lunch. Again, that's not the ideal situation, but  
18 if you would like to talk to panel members and  
19 visit with us, we certainly encourage that.

20 CAPTAIN BARNUM: Jim and Ramon, if you could,  
21 so you could call in your vote, I'm going to give  
22 you a telephone number to call, you. Probably --  
23 unless you have two phones, we don't have e-mail  
24 connection here or you could e-mail us. If you  
25 give us a call, to Barbara, at 301-980-4658,

26

1 301-980-4658 and give her your vote, I would  
2 appreciate it. Thank you.

3 CAPTAIN TORRES: So we're off-line now. When  
4 do you want us to call Barbara?

5 CAPTAIN BARNUM: Call her now.

6 CAPTAIN WEAKLEY: Ramon, I will give you a  
7 minute to go first and then I'll call.

8 CAPTAIN TORRES: Sure.

9 CHAIRMAN SKINNER: Thanks, guys. I think  
10 while we're finishing up with that, I would just  
11 like to take care of a couple other business  
12 matters. One, our reporter for today's meeting is  
13 Glenda Powers, right over here. Thank you very  
14 much.

15 (Applause.)

16 CHAIRMAN SKINNER: She has a supply of rubber  
17 bands to shoot at you if you mumble, talk too fast  
18 or don't introduce yourself, so we're really going

19 to have to be in line on this one. And, thank you.

20 THE REPORTER: You're welcome.

21 CHAIRMAN SKINNER: I would also like to for  
22 the purposes of record recognize the contributions  
23 of the members who rotated off the panel in  
24 January:

25 Bill Gray, Dr. Lou Lapine, John Oswald, and,

27

1 in particular, Scott Rainey, who I think put in an  
2 extraordinary amount of time into getting the  
3 report out.

4 Having now gone through one meeting  
5 organization, I know how much time is put into  
6 this -- or he put into this organization, so I  
7 think we should have that in the record. And, of  
8 course, previous members, Helen Brohl, and our  
9 former Federal representative, Kevin Roger Parsons.

10 We're also looking forward to the new  
11 perspectives in energy of our new members, focus on  
12 energy. And it's really a pleasure to welcome  
13 Captain Tom Jacobsen, Dr. Gary Jeffress, Captain  
14 Ramon Torres Morales, James Weakley, Ed Welch and  
15 Matt Wellslager, so welcome to all of you.

16 CAPTAIN BARNUM: We have two more votes.

17 CHAIRMAN SKINNER: Okay. The other -- a  
18 couple of other items, one, I'm not sure if  
19 everyone knows that Barbara Hess will be ending her  
20 service at NOAA in 30 days; actually, I think it's  
21 now 29, but who's counting. So this is most likely

22 our last meeting with Barbara. Here she is.

23 ADMIRAL WEST: She didn't ask us for  
24 permission.

25 CAPTAIN JACOBSEN: We should vote on that.

28

1 ADMIRAL WEST: Yeah, what's this? It's not  
2 voluntary. She's ignoring us.

3 CHAIRMAN SKINNER: So talking with her  
4 yesterday, I suggested maybe going to Staples and  
5 cleaning them out of three-ring binders as our  
6 going-away present. I got this cold stoney glare,  
7 so if any of other other panel members have better  
8 ideas of how to send her off before tomorrow, I  
9 think that's something we need to think about.

10 MS. HESS: Just say good-bye, that would be  
11 really nice.

12 CHAIRMAN SKINNER: Yeah, okay. We'll work on  
13 that.

14 CAPTAIN MYRTIDIS: We can leave her on the Sun  
15 tomorrow.

16 MR. WELLSLAGER: A good departing gesture.

17 MR. ARMSTRONG: Just let her stow away.

18 CAPTAIN BARNUM: Well, it was a very close  
19 race, but I do have the pleasure of announcing the  
20 winners or the selectees. Tom Skinner as chair and  
21 Ed Welch as vice chair. Congratulations.

22 (Applause.)

23 CHAIRMAN SKINNER: Has anyone told you what  
24 the vice chair does?

25 MS. HESS: You have to go over there and sit

29

1 in the vice chair's spot.

2 MR. DUNNIGAN: You thought you could hide down  
3 there.

4 CHAIRMAN SKINNER: Also in planning for this  
5 meeting, I know we all recognize how much time NOAA  
6 puts into putting together these meetings, but it  
7 really is quite exceptional that for each of the  
8 meetings not only is Steve here but Jack Dunnigan.  
9 And for this meeting, you know, we'll have a  
10 five -- I think five program directors, is that  
11 correct?

12 CAPTAIN BARNUM: Yes.

13 CHAIRMAN SKINNER: So it's a tremendous amount  
14 of time and effort on their part, and I think we  
15 should recognize that NOAA takes this panel very  
16 seriously and we very much appreciate it.

17 We also appreciate the fact, I think many of  
18 you may know, that Jack's father passed away  
19 recently and on behalf of the board, on behalf of  
20 the panel, we want to extend our condolences to  
21 you.

22 MR. DUNNIGAN: Thank you.

23 CHAIRMAN SKINNER: I think the fact that  
24 you're here today when it would have been, you  
25 know, very understandable if you couldn't have made

1       it, is a testimony to your interest in the board  
2       and also to your professionalism, and we very much  
3       appreciate that.

4               MR. DUNNIGAN: Thank you.

5               CHAIRMAN SKINNER: With that, I think we are  
6       moving onto presentations and updates on  
7       implementing the five recommendations in the HSRP  
8       report and --

9               CAPTAIN BARNUM: Actually, it's overview of  
10      the budget.

11              CHAIRMAN SKINNER: Sorry, overview of the  
12      budget. And -- are you doing that or is Jack?

13              CAPTAIN BARNUM: Jack is going to.

14              CHAIRMAN SKINNER: Jack, I think you're up  
15      first.

16              MR. DUNNIGAN: Thank you, Mr. Chairman. Good  
17      morning, everybody. So I guess I have the  
18      microphone for about 45 minutes, and that will  
19      workout. There's a couple of things that we want  
20      to take an opportunity to cover this morning, and  
21      hopefully I will be able to make this work.

22              I want to talk a little bit -- make sure you  
23      understand what NOAA's budget is like. There is  
24      some very interesting and important things that are  
25      in it, in the budget, that congress is now

1 considering for '09, and I'll talk a little bit  
2 about '08 as well, which is our current year.

3 I want to update you on the work that we've  
4 been doing in NOAA to follow-up on the report that  
5 the HSRP did on the most-needed aspects of the  
6 marine transportation system and NOAA's role in  
7 doing it. And then I'm going to close with just a  
8 couple of comments about a new responsibility that  
9 I've taken on, on behalf of the United States, as  
10 their permanent representative to the  
11 Intergovernmental Oceanographic Commission and some  
12 of the challenges, really, that we see there. So  
13 if we can, let's begin with the budget.

14 Some very interesting things going on here.  
15 The president's budget for the next year, for the  
16 fiscal year that was announced last month, broke  
17 the four billion dollar mark for the first time.  
18 It's a -- so in that sense, it's good. And you can  
19 see the trends here, if you look back over the last  
20 decade, comparing there the president's budget and  
21 the enacted budget, you can tell a couple of  
22 things. First of all, the enacted budget is always  
23 larger than what the president requests.

24 And secondly, it's been on a very steady  
25 upward trend. And if you look at the rest of the

1 government, and particularly if you look at some  
2 environmental agencies, you will not see that. If



3       you look at other agencies in the Department of  
4       Commerce, you will not see that.

5               NOAA stands out, really, as an agency whose  
6       budget has been going up. Now, that's not to say  
7       that we have all the money we need. Admiral  
8       Lautenbacher would certainly be the first one to  
9       tell you that the requirements and the job that we  
10      do for the people of America everyday far outstrip  
11      the amount of resources that are asked for and that  
12      are available in the current climate. But overall,  
13      it's a good sign.

14             Now, there are some challenges. The budget  
15      request is up by 200 million dollars. 240 million  
16      of that 200 million is for a satellite, it's for  
17      Gozar. So if you look at the requirements that we  
18      have to serve the people, certainly the work that  
19      we do to save lives and property and the observing  
20      systems that are a part of that from space are  
21      unbelievably expensive and absolutely essential to  
22      the health and safety of our people. So that's  
23      what the challenge is.

24             The challenge is to be able to justify and  
25      define the resources to do the broad range of

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1       things that NOAA has to do. You know, a lot of  
2       times we talk about the wet side of NOAA and the  
3       dry side of NOAA. And all of us on the wet side  
4       think the dry side gets all the money and why can't  
5       we get some more attention. But the fact is that

6 everything that NOAA does is important to the  
7 people of the country, and especially in a place  
8 like South Florida. You certainly understand that  
9 the risk that you have to face from large storms  
10 that come in every summer.

11 So we have an important role to play and the  
12 information that helps people and planners to be  
13 able to deal with those situations, so things have  
14 to happen. But, you know, all in all, it's, you  
15 know, NOAA's budget outlook is as good as you're  
16 going to find in the types of work that we do in  
17 the government.

18 Now, this is the Nation Ocean Service, and you  
19 didn't have this slide in your initial  
20 presentation. This one is new to you. But, I  
21 mean, essentially what we see here is that we have  
22 not, you know, in NOS, shown that same trend that  
23 you seen agency-wide for NOAA, so we take that as a  
24 challenge, you know. We know that the work that we  
25 do in maritime transportation and in resource

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1 stewardship is critical for the country also,  
2 so but we need to keep marketing and keep selling  
3 those ideas.

4 In the FY-09 request for the Ocean Service,  
5 it's 488 million dollars. It's an increase of 22  
6 million over the president's budget from last year.  
7 That's a good sign. But let me point to you some  
8 of the longer-term challenges that we have. In the

9 lower left-hand corner, you see one of my favorite  
10 ships, that's the Rainier, and her launches and she  
11 is getting old. She needs to be given an  
12 opportunity for a major repair period.

13 The Rude, which has been doing a lot of  
14 surveying in this part of the world, is going to be  
15 decommissioned in April. We won't get the new swat  
16 vessel, the Hassler, for about another year and a  
17 half. So to replace these vessels, these hard  
18 assets, is extremely expensive. That's sort of,  
19 you know, our version of a satellite. And how are  
20 we going to be able to find the resources to be  
21 able to undertake that?

22 Even if we do a major repair period, the  
23 Rainier's not going to operate more than another 10  
24 years. The Fairweather is just as old. At one  
25 time, we had 13 hydrographic survey vessels. Now

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1 we have 4. So, and, of course, our business models  
2 change. We rely much more on the private sector to  
3 help us do this today than we did 20 years ago, and  
4 that's good. We're a lot much more efficient.  
5 We're using, you know, much better technology.  
6 Nevertheless, the challenges are going to be out  
7 there looking into the future to be able to meet  
8 the needs that we have.

9 Navigation services actually is one part of  
10 the ocean service that is holding its own. And,  
11 obviously, that's what we're most concerned about

12 here today. And, again, this slide is in your  
13 materials and there's some details there on our NAV  
14 services request.

15 Some basic highlights that are in the budget,  
16 improving Ping to Chart which has been a great  
17 challenge of ours for a long time is receiving some  
18 extra money. And this is basically to be able to  
19 improve the data flow once we get it into the  
20 system so that we can make quicker use and better  
21 use of the information that we're gathering.

22 We're investing in autonomous underwater  
23 vehicles. We're not ready to make those completely  
24 operational yet in terms of doing hydrographic  
25 surveys. But in the future our technology is

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1 starting to have to go in this direction. We  
2 probably can't continue to rely on being large  
3 Class II vessels to be able to send launches out  
4 and pull sonar.

5 What we're hoping -- and the swat vessel is  
6 going to give us a real opportunity to be testing  
7 this -- is to be able to look at the technology  
8 improvements that are going to be there 30 years  
9 from now. We don't do surveys the way we did 30  
10 years ago. And we know we won't be doing them 30  
11 years from now the way we're doing them today. So  
12 we're investing here in our technology and our  
13 future.

14 And there's an increase in funding for ports

15 to improve and expand the delivery of information.  
16 We are continuing to look at the question that was  
17 recommended by the HSRP about whether or not the  
18 complete operation and maintenance of the port  
19 system should be undertaken by the federal  
20 government as opposed to the partners that we have  
21 today.

22 We're not actually there yet in this budget,  
23 but it's an issue that we're continuing to work on  
24 for further out years and, yes, Tom, I think that  
25 is Long Beach.

37

1 CAPTAIN JACOBSEN: Thank you. That's not Long  
2 Beach.

3 MR. DUNNIGAN: This is not Long Beach. This  
4 is Galveston. And response and restoration is --  
5 you know, just continues to be one of the really  
6 essential programs that we carry out when the  
7 Costco Busan ran into the bay bridge in San  
8 Francisco Bay, we were on scene. Our on-scene  
9 coordinator was alerted within 20 minutes, and he  
10 was on-scene within two hours because he was off at  
11 a meeting in Las Vegas, but he rushed back and we  
12 had 55 people over the next two weeks who were  
13 there working with the Coast Guard in the Cosco  
14 Busan response.

15 So we know we play an essential role, but the  
16 problem is that we've got a significant budget cut.  
17 This is not a big part of our 400-million-dollar

18 budget, obviously, this 17 million dollar request.  
19 But it got cut by about 5 million dollars in the  
20 '08 budget. We think that that was an anomaly and  
21 we've been talking to people on the Hill and the  
22 president's request is to get that money restored.  
23 We've always believed that this is a program that  
24 needs a lot more money than we're able to get for  
25 it in the current environment.

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1 So, and this is one of those areas where the  
2 president is consistently asked for more money than  
3 the congress has appropriated. So it's nice to be  
4 able to stand up and say, you know, the president  
5 wants me to ask for more money. But it's certainly  
6 one of the critical areas that we have in  
7 responding to problems in our marine environment.

8 Integrated Ocean Observing System. We are  
9 continuing to move forward on IOOS. Zdenka Willis  
10 is going to be here and she'll speak later today  
11 about some of the details, so I'm not going to  
12 spend much time on this now. Let me just say that  
13 this is one of those areas where we've lost money  
14 over the last couple of years.

15 The president in the '08 budget actually  
16 requested money for the first time, but because of  
17 a lot of budget issues, the amount that congress  
18 appropriated -- although it was a lot more than the  
19 president asked for -- was significantly less than  
20 congress had appropriated previously.

21           The president's asking for about the same  
22           amount of money that he asked for last year, and  
23           we'll see where this goes. It's something that's  
24           getting a lot of attention on the Hill. There's a  
25           number of pieces of value of legislation that are

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1           being considered, and we're continuing to execute  
2           the program. But we've got to find some way of  
3           getting the money, you know, back to where it was a  
4           couple of years ago. But I think the  
5           administration is still a believer and wants to see  
6           the thing move forward.

7           Those are just some highlights. I'm not going  
8           to go through the backup slides, but it might be  
9           good at this point to maybe take a couple of  
10          minutes, if we could, and see if you have any  
11          questions on the budget presentation before we go  
12          ahead and go into the other two issues.

13          CAPTAIN BARNUM: Do you want to call on  
14          people?

15          CHAIRMAN SKINNER: Sure. Admiral?

16          ADMIRAL WEST: I can't pass up the opportunity  
17          to talk about money and NOAA. Jack, can you go  
18          back to the funding of NOS chart? Actually, go  
19          back to the 4.1 for NOAA for a minute. I serve on  
20          another FACA for NOAA. It actually finished up  
21          last night, so that's why I'm a little late.

22          And in a public session yesterday I made the  
23          same comments about NOAA's budget because obviously

24 the top line affects all the parts of NOAA. And  
25 4.1 looks great and a lot of folks worked hard to

40

1 push that and it should be about 4, 5, as the  
2 friends in NOAA have done. The deceiving part  
3 here, as Jack has already alluded to, is 250  
4 million of it is to fix a satellite problem. So  
5 what's happening, it's kind of deceiving that  
6 NOAA's going up. They're sticking money in there  
7 to take care of a problem and, meanwhile, the  
8 programs -- now you can go to NOS, if you would  
9 please.

10 And here's what happening to the core programs  
11 within NOAA. The top line looks like it's going  
12 up, but what NOAA's here really to serve the  
13 country for is going down. It's not a unique  
14 problem for the federal government, but it's a  
15 problem for NOAA. They have a very complicated  
16 next-generation satellite, environmental satellite  
17 system to try to put it. It's very, very expensive  
18 it's tough, it's technical, and they got some  
19 problems. And we've got some money to pay. The  
20 250 is just a down payment, folks. This is going  
21 to be going on for a long, long time. What we  
22 cannot accept is this burden -- tax burden on  
23 NOAA's top line to take care of this problem.

24 It's not unprecedented for the federal  
25 government to take a chunk of money and stick it



1       into an agency to fix the problem -- it's been done  
2       in NASA many times -- to fix a problem so that the  
3       programs that are ongoing can maintain a healthy  
4       growth. This is not acceptable. 4.1 is wonderful,  
5       but it's not acceptable when a third -- 300 to 400  
6       million dollars each year goes to fix an old  
7       problem. So this is -- I'm very concerned about  
8       the budget process there and, of course, NOS  
9       affects what we're doing here today.

10             Yesterday was in the OAR budget that we were  
11       talking about, which is also suffering from this,  
12       too, so that's not a good -- you know, good to see  
13       it above 4, but that's a problem. And I think  
14       there needs to be some kind of a public movement to  
15       say that's not fair to the mission of NOAA, to tax  
16       them with this problem with the satellite. It's  
17       a -- I've been involved with satellites all my  
18       life, it's a tough, tough business. In fact, DOD  
19       realized that and put it to a separate agency and  
20       said take care of this tough problem so I can -- I  
21       am not affecting the ongoing programs. And maybe  
22       that's something that commerce and administration  
23       should take a look at. Thank you.

24             MR. WELCH: Admiral.

25             ADMIRAL WEST: Yeah?

1           MR. WELCH: If I could just elaborate on that  
2           a little bit and if we could go back to the  
3           previous slide? I'm sorry, the first slide that  
4           had the 4.1.

5           MR. WELLSLAGER: That's it.

6           MR. WELCH: There you go. Just for you  
7           non-Washington folks, a little thing you need to  
8           know is that when people talk -- sorry, Jack --  
9           when a federal agency talks about a budget  
10          increase, they're talking about what the president  
11          asks for.

12          The real key at the end of the fiscal year is  
13          what congress appropriates, because eventually, I  
14          mean, what the president asks for sort of sets  
15          priorities for what -- in congress, what the  
16          president proposes, the congress disposes.

17          So if you look at that chart, NOAA total  
18          funding has been absolutely flat for four fiscal  
19          years. It's been 3.9. And the president is  
20          proposing to pump it up. So I just wanted to, you  
21          know -- the key thing is not whether the budget's  
22          going up or down. The key thing is whether the  
23          appropriations are going up and down. They're very  
24          related but they aren't quite the same thing.

25          And the second thing -- if we could go to the

1           NOS slide -- yeah, I wonder if perhaps subsequent

2 to the meeting we could get copies of that if we  
3 don't have it in our books now?

4 MR. DUNNIGAN: Certainly.

5 MS. DENTLER: You have it. It's in the back  
6 of the presentation.

7 MR. WELCH: Oh, It's in the back. Okay.

8 MS. DENTLER: It was added out separate.  
9 Yeah, it was at your seat. Did you get that?

10 MR. WELCH: Okay. I'll find it. And the  
11 third comment I would make -- if I can make, and  
12 I'll probably bring this up again a couple of times  
13 as we talk about the specific programs, but the  
14 port director inspired me to make this comment.  
15 You know, he was talking about things that they had  
16 of planning now five and six years out.

17 And for a program that has major capital  
18 expenses, you have to be that forward-looking. And  
19 the government, the federal government budgeting  
20 process, has its own unique problems and we're  
21 going to be talking about stuff in the proposed  
22 fiscal '09 budget, which is the one that starts  
23 this coming October the 1st, and I think they're  
24 going to be talking about some things about getting  
25 ready for the fiscal '10 budget.

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1 But at some point it may be worthwhile for the  
2 panel to talk with the NOAA folks about what the  
3 planning is for two and three and four years out  
4 for some of our programs, you know, there is some

5 work that some initial very preliminary work falls  
6 that are being done and we might need to think --  
7 particularly on some of these capital programs --  
8 what are the needs going to be three and four years  
9 out as opposed to just to the next fiscal year.  
10 Because that's pretty well -- the parameters of the  
11 next fiscal year are pretty well set. Thanks.

12 CHAIRMAN SKINNER: Other questions or comments  
13 on the budget or response?

14 MR. DUNNIGAN: Good comments. And thank you  
15 both very much. And I think, you know, you're  
16 pointing out things that are critical and important  
17 to know. And all I would say is that although we  
18 certainly all see the needs and the requirements  
19 that have to be met, and they are huge, the one  
20 thing you can say about the NOAA budget is that  
21 we're really the only part of the environmental  
22 side. And, in many instances, the commercial side  
23 of government spending that's doing this well.

24 The official administration plan for the  
25 future is real negative growth of two percent in

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1 domestic spending forever. And yet beyond that  
2 you've seen that NOAA in that decade has gone up by  
3 30 percent. And so that's good. I mean, I think  
4 it shows that the congress and that the president  
5 are understanding the critical role that we play in  
6 lots of areas. And, then again, it doesn't take  
7 anything away and certainly Admiral West was --

8           when he was at Corps was a great leader for the  
9           community and everybody at NOAA appreciates what  
10          was done with the friends of NOAA and to build a  
11          strong consensus of support across the board.

12                 And Ed is certainly right, that the actual  
13          funding, the congressional funding, for the last  
14          four years has been flat. And, you know, we were  
15          doing really good in the '08 budget process. The  
16          House actually funded us at the president's request  
17          level and the Senate had a lot more money in it,  
18          and it all fell apart in the continuing resolution.  
19          So, you know, we'll make another run at it this  
20          year and see how well it can work.

21                 Ed raises a question of long-term planning,  
22          and just so that you're aware, I was just chatting  
23          with Steve. I think the panel was briefed about  
24          two years ago at the Houston meeting on our plans  
25          for our commerce and transportation goal.

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1                 We have about a seven-year planning cycle  
2          within NOAA. We began about three weeks ago our  
3          planning for the '11 to '14, FY-11 to FY-14 cycle,  
4          so that's -- it's long-winded. We do planning for  
5          a couple of months and then we program and then we  
6          get into budgeting. We just started the budgeting  
7          for the FY-10 cycle or for actual fiscal year '10  
8          itself. So there are these plans, there are  
9          requirements. It's probably not a bad idea to  
10         maybe to come back to the panel with an update, and

11 certainly for the new members who didn't see that,  
12 you know, perhaps next time, Steve, we could come  
13 back and talk to them about that. Steve is the  
14 gold team lead for the NOAA's commerce and  
15 transportation goal. So we could maybe do that,  
16 that kind of a briefing. If it's going to be a  
17 public briefing, we may have to scrub some numbers  
18 out of it and certainly give you a sense of what's  
19 there.

20 The other thing is we're very seriously  
21 concerned about our fleet and the long-term capital  
22 needs, not just of our fleet, of all of our  
23 facilities, and as well as satellites,  
24 IT infrastructure. But we specifically looked at  
25 the fleet issues, and again, that's not a public

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1 document, but -- and it's still being vetted  
2 through senior parts of the government, but it may  
3 be that we could discuss that with you in an  
4 executive session to let you know sort of how those  
5 things are looking. So I'll ask Steve to look into  
6 that, too.

7 CHAIRMAN SKINNER: Thanks, Jack. I think that  
8 would be great at the next meeting to have that  
9 kind of update and briefing. Admiral?

10 ADMIRAL WEST: Just as a follow-up, as a  
11 follow-up, yeah, Ky and Mary Gleck and Jack, Jack  
12 Kelly, and Jack Dunnigan have spent - done a  
13 wonderful job over the years fighting for us. But

14 I still have to point out, folks, if you're  
15 concerned with investment and ocean issues, it is  
16 going down significantly. We have to put the chart  
17 back up. So we can't be happy with 4.1. It's just  
18 not going work. You're going to hear -- Zdenka,  
19 are you here? Oh, there you are. You know, a lot  
20 of us think that's the key to the future of our  
21 oceans, and it is a mess because of the budget  
22 problem.

23 And, oh, by the way, there will be probably be  
24 a CR for '09 because nobody's going to pass this  
25 budget and we'll wait to the new administration,

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1 that's already out there, so what impact does that  
2 have? And so things are not all rosy in NOAA for  
3 our ocean issues, is that fair?

4 MR. DUNNIGAN: Certainly.

5 ADMIRAL WEST: Okay. I don't want to be  
6 negative to -- all right. I'm done. There's a lot  
7 of work to do.

8 CHAIRMAN SKINNER: I think one of the things  
9 just for panel members to be aware of is tomorrow  
10 we'll be talking about the role of this panel and  
11 trying to address a lot of things that Admiral West  
12 has raised and how do we go about doing that as  
13 effectively as possible. Elaine?

14 MS. DICKINSON: Elaine Dickinson. Going back  
15 to response in restoration, I just had a question  
16 about that. You said the San Francisco oil spill

17 you incurred millions in extra costs. Does that  
 18 come out of -- I mean, how do you pay for that?  
 19 Does that come out of the other programs? Do they  
 20 suffer because that happens, or do you just spend  
 21 the money and then hope to recover it later?

22 MR. DUNNIGAN: We can be reimbursed by the oil  
 23 spill liability fund for certain of our expenses,  
 24 but that doesn't come for some time. We don't get  
 25 it like right away. So part -- we didn't spend any

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1 extra money that we had to take from anybody else  
 2 to respond to the Cosco Busan. We redirected  
 3 existing resources.

4 So we have a team, for example, in Seattle  
 5 that we call our war room, when one of those events  
 6 happens. There was one in Florida a couple of  
 7 years ago, but it gets managed out of that war room  
 8 in Seattle, so all of those people turn to. So  
 9 this is basically saying we had 55 people, you  
 10 know, already on our staff, some costs, people that  
 11 work on this stuff everyday that we were able to  
 12 turn to to be able to be responsive. We didn't  
 13 spend any extra of our own money beyond what we  
 14 normally would spend on this program.

15 MR. WELCH: Ed Welch again. Jack, to  
 16 follow-up on that, the oil spill trust fund now is  
 17 being replenished because congress has reinstated  
 18 the tax on imported oil to put in the trust fund.  
 19 So after going down for a significant number of



20 years, the trust fund is bottomed out and is  
 21 beginning to increase in size, which it needed to  
 22 do. And I know NOAA gets a certain amount of just  
 23 standard operating money off the top in each budget  
 24 from the trust fund as opposed to a reimbursement.  
 25 Do you know how much that is?

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1 MR. DUNNIGAN: My understanding is we don't.

2 MR. WELCH: I think there's a small --

3 MR. DUNNIGAN: We've been -- we've actually  
 4 been looking at that as an option, talking to other  
 5 federal agencies and some folks in the private  
 6 sector about whether there would be support for  
 7 doing that for the NOAA budget, but at the moment,  
 8 I don't believe we -- and we'll get back to you  
 9 with a definitive answer.

10 MR. WELCH: Yeah, I think that's worth looking  
 11 at. I know the trust fund puts a certain amount of  
 12 operating money into several agencies across the  
 13 federal government, including a couple of Alaska  
 14 demonstration centers, which I guess are a good  
 15 thing to fund, not an oil spill trust fund, but it  
 16 seemed like this would be a -- this program  
 17 certainly would be worthwhile to get some regular  
 18 money as opposed to a reimbursement. I would  
 19 suspect that Senator Feinstein and Senator Boxer  
 20 might be interested in something like that after  
 21 the Cosco Busan.

22 MR. DUNNIGAN: It's an option that we're

23 continuing to look at. The problem from an  
24 administration standpoint is with these trust  
25 funds, and Helen Brohl can brief us on some of the

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1 things that the CSTS has been doing with the  
2 Harvard maintenance trust fund which is a similar  
3 issue, is that it's not magic money. It's still,  
4 in terms of the overall spending caps for the  
5 government, whether it comes from a tax or whether  
6 it comes from a trust fund, it's still capped with  
7 the overall limits that the administration and the  
8 congress have to deal with. So, you know, we still  
9 think it is an option that bears some watching.

10 It's actively being worked, and I wouldn't  
11 be -- and it's being talked about on Capitol Hill  
12 as well. People are coming to us from the Hill and  
13 saying, gee, shouldn't you be getting a regular  
14 appropriation from the coastal liability trust  
15 fund? And our usual answer is yeah, maybe, if not  
16 more positive than that, depending on the  
17 environment.

18 CHAIRMAN SKINNER: Any other comments or  
19 questions on the budget process?

20 MR. DUNNIGAN: Yeah, by the way, if you'd  
21 like, this is the NOAA budget for '08. This is the  
22 summary document, all right. The real big budget  
23 commission which we call the green sheets is about  
24 this thick, anybody wants this, we can certainly  
25 get copies of this for you. It's -- it goes

1 through all of NOAA, it discusses all the satellite  
2 programs, all the fisheries programs.

3 You talk about other great needs in NOAA.  
4 Congress reauthorized the Magnuson Stevens  
5 Fisheries Act two years ago, and there's a  
6 tremendous amount of work that NOAA's being  
7 required to do. We have to end overfishing next  
8 year, you know. And they've got -- I was talking  
9 to the executive director of the Pacific Fishery  
10 Management Council yesterday. They really got a  
11 tiger by the tail. It's got to cost a lot of money  
12 to be under to undertake the high political risk  
13 that's associated with fisheries conservation and  
14 management under a very, very tough set of  
15 standards in that new law. That's just another  
16 part of the requirement that NOAA's trying to deal  
17 with in what is clearly is a very, very difficult  
18 budget climate.

19 CHAIRMAN SKINNER: Thanks, Jack. I think if  
20 there are no more questions or comments, now we  
21 move on to the -- we're addressing the five  
22 most-wanted recommendations in our report.

23 CAPTAIN BARNUM: Thank you.

24 MR. DUNNIGAN: Well, I think Steve and I are  
25 just going to do a little tag team here, but we

1 told you when you did this report that we would  
2 take it seriously, and we certainly do, and we've  
3 been working with this and vetting it through the  
4 department and in many places in government. And  
5 the presentation is basically just to bring you up  
6 to speed as to what's been happening to your report  
7 since it came.

8 In a general sense, let me say that this is  
9 getting very good play and very strong support by  
10 all of the audiences that we take it to. I think  
11 they're recognizing that the work that you did was  
12 thorough and comprehensive and done at a level that  
13 really allows us to focus on the critical nature of  
14 these programs.

15 So, you know, we're going to continue working  
16 this as the gold team leaf for congress and  
17 transportation. It's particularly important to  
18 Steve as he builds these budgets and does this  
19 out-year planning. It's still relevant and Admiral  
20 Lautenbacher still talks about it in meetings that  
21 he goes to, so I think our core message for you  
22 this morning is we really do believe you do great  
23 work and it's going to be very helpful to us as you  
24 move forward. But I'm going to ask Steve then to  
25 go ahead and walk us through the slide.

1 CAPTAIN BARNUM: Thank you, Jack.

2 MR. DUNNIGAN: You see, I even keep it with me  
3 all the time.

4 ADMIRAL WEST: Is it autographed?

5 MR. ARMSTRONG: Me, too, Jack.

6 CAPTAIN BARNUM: I got my copy, too. I think  
7 one of the most telling moments was in the HSRP  
8 report, we were at a meeting internal to NOAA and  
9 we had a new gentleman that just joined NOAA and  
10 one of the conversations came up, he says, talk  
11 about HSRP report, and the person reached out of  
12 his briefcase and pulled it out and said "here it  
13 is," he had it with him. I was impressed.

14 So, without further ado, I want to give you an  
15 update where we are. It's been about a year since  
16 the five most recommendations was presented to NOAA  
17 and, of course, this is the number one  
18 recommendation: Aggressively map the nation's  
19 shorelines and navigationally significant waters.

20 And what you heard previously is that NOAA's  
21 resources does not any way equal the rate of growth  
22 of what we heard from the port director this  
23 morning. The MTS growth is happening at an  
24 exponential level but our resource is to stay  
25 engaged and to make sure that the navigation

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1 services are on par and that the mariners have the  
2 information they need to move the products in and  
3 out of the port safely and clean, too, without a

4 spill.

5 So these are the breakdown of that  
6 aggressively survey. Expand in-house and contract  
7 surveys, and developing and implementing more  
8 efficient surveying methods, and also we heard  
9 about replacing or recapitalizing our existing  
10 hydrographic ships and capabilities. And also to  
11 maximize the use and reach of NOAA's resources. So  
12 I will talk a little bit more about those as we go  
13 on.

14 Here's a table of our current capacities. On  
15 the left, you see the -- what we are currently  
16 doing now, 3,000 square nautical miles a year. Our  
17 100 percent requirement is 10,000 square nautical  
18 miles a year, and that will get us to resurveying  
19 the 500,000 navigationally-significant miles around  
20 the United States and its territories.

21 The United States is composed of 3.4 million  
22 square nautical miles, so we just take those  
23 navigationally significant at 500,000 and on a  
24 50-year cycle, we figure about 2,000 square  
25 nautical miles would be a reasonable approach.

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1 Otherwise, at a current rate of reduction,  
2 we're looking at 166 years to do the 500,000 square  
3 nautical miles. So, agency estimate is about 100  
4 percent, 130 million dollars is what we estimate to  
5 be able to do 10,000 squares a year. Our goals for  
6 next year for this FY-08 based on the funding we

7 got is 2500 square nautical miles. We had some  
8 reductions in the adjust survey backlog. We had  
9 asked for roughly 31 and change, 31 million for our  
10 contract partners. We received 26. Similarly, we  
11 had to lay up the NOAA ship Rude because of funding  
12 shortfalls at NOAA's Rainier's operations, so that  
13 was one of the outcomes of the FY-08 budget.

14 For '09, '09 includes money we asked for in  
15 '08, and that goal is for 3,000 square nautical  
16 miles in '09. Map 12 percent of the port areas  
17 every year. That's what our current capacity is,  
18 and that means mapping the ports for change, making  
19 sure all the cultural features are there, the new  
20 piers and new facilities. It's what you see with  
21 your eye when you look at a nautical chart.  
22 There's nothing more damaging to a manager to the  
23 credibility of a nautical chart to becoming into a  
24 port and looking at the chart and there's a  
25 facility there and it's not on the chart. It begs

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1 the question of what else may be wrong. So our  
2 goal to this year map 12 percent based on the  
3 funding we have and then our FY-09 goal is 14.3  
4 percent.

5 For the national shoreline, the map 3 percent,  
6 that's our current capacity. Our goal is 10  
7 percent this year with the 100 percent for both the  
8 port areas and the national shoreline is 16 million  
9 dollars. In '08, we got 6.1 million dollars, and

10 so that will allow us to do basically 3 percent,  
 11 3.3 percent. Still far below what our goals are  
 12 being able to maintain charts in a status that we  
 13 like to keep them.

14 So the actions we're taking, I mentioned this  
 15 earlier, survey 2400 square nautical miles, about  
 16 half, 140 square nautical miles, contracted;  
 17 collect useful data through integrated ocean and  
 18 coastal mapping plans. And California state  
 19 mapping is an effort to where we're looking to  
 20 partner with, with California -- I'll talk a little  
 21 bit more about that later -- to be able to get  
 22 2,000 square nautical miles, in addition to our  
 23 current 2500 square nautical miles.

24 Partnering with the U.S. Army Corps of  
 25 Engineers -- and we have a representative today in

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1 the audience, Joe Scolari -- and partnering with  
 2 the Army Corps on mapping the shoreline. The Army  
 3 Corps has a large effort to map the shoreline for  
 4 sediment transport and we want to partner with the  
 5 Army Corps to update our shoreline and also update  
 6 the nearshore short mapping imagery, some of the  
 7 hardest imagery to collect. Developing curricula  
 8 with the - and forums for users on data collection  
 9 and processing, such as GPS and CORS, improving of  
 10 digital sensor development and technology transfer  
 11 in the industry, such as "Q," combine of certain  
 12 bathymetric estimator, which is now developed at U



13           & H and is now in most of the major software  
14           programs.

15           Conduct demonstration projects in-house where  
16           surveying on the ellipsoid being more sufficient  
17           with our surveying, and initiate in-house the  
18           socioeconomic studies, proving that - or showing  
19           the value of hydrography and its services to the  
20           nation, what value does it bring to the nation in  
21           moving our goods and services through the ports.

22           Continued plans to replace the aging fleet,  
23           Jack talked about that earlier. The Hassler is  
24           underway, it's in construction, I believe, you've  
25           seen -- Barbara sent pictures out -- the steel

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1           being cut. It's being built down in Pascagoula,  
2           and it's replacing the 39-year old NOAA ship Rude  
3           which will be decommissioned this month.

4           Procure replacement for the survey vessel Bay  
5           Hydrographer. That's -- well, that aluminum is  
6           being cut, it's being built in Washington state,  
7           it's going to be a twin-hull vessel. It's a proven  
8           design that the Corps of Engineers has one in  
9           Mobile and also in New York, very happy with it.  
10          So we're not going to go out and reinvent the  
11          wheel. It's going to be a 55-foot vessel to  
12          replace the Bay Hydrographer and support the work  
13          that she does in research and also survey  
14          operations on the bay.

15          Replace the two hydrographic launches on the

16 NOAA ship Rainier. The message came across  
 17 yesterday on my Blackberry -- I couldn't see the  
 18 pictures -- but everybody was oohing and aahhing  
 19 about the two new launches, which has been  
 20 replaced. The launches that are on the Rainier,  
 21 which is roughly 35 years old. They're older --  
 22 they were old when I came into the Corp and they're  
 23 really old now.

24 They're a very good design and they serve us  
 25 well, but they're 35 years old boats. So we're

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1 working to recapitalize these important pieces; not  
 2 only for the ships, but the launches are the tools  
 3 that actually get out and augment the capacity of  
 4 the vessel. And so in this year's budget we had  
 5 funding to add two more launches, so two additional  
 6 launches will be built this year.

7 And expand our autonomous underwater vehicle  
 8 in-house contract hydrographic data collection  
 9 capacity by again developing operating procedures  
 10 and developing how we're going to integrate this  
 11 into the NOAA fleet and then with our contractors.  
 12 So developing specifications in operating --  
 13 concept of operations. And that's an area that  
 14 we're really excited about. We think this shows  
 15 great promise in augmenting our capacity.

16 Second recommendation. Integrate coastal  
 17 mapping efforts and ensure federally maintained  
 18 channels, approaches, and anchorages are surveyed

19 to the highest standards. Making sure that the  
20 data integration, all the data that's collected  
21 both between NOAA and the Corps and the USGS and  
22 all our partners equals - not duplicating efforts  
23 and so, and reduce inconsistencies, so maximize the  
24 return on the taxpayer investments. Basically,  
25 it's the map form used many times, a paradigm

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1 you've heard about.

2 Tom asked if we would break between each one  
3 if we had any questions.

4 CHAIRMAN SKINNER: Sherri?

5 CAPTAIN HICKMAN: Sherri Hickman. The Rude  
6 was laid up due to budget cuts, am I correct?

7 CAPTAIN BARNUM: Yes.

8 CAPTAIN HICKMAN: How do we plan on running  
9 the new vessel if we can't run -- looking at the  
10 same budget to run it, am I correct?

11 CAPTAIN BARNUM: We had the same budget. This  
12 is -- we hope an acronym for this year. This was  
13 the first year we had the president's request, both  
14 in the House and the Senate, full marks, and we  
15 were all very hopeful that that was going to come  
16 through. What was enacted was significantly less.  
17 What's in the '09 budget is there is funding to  
18 operate the Hassler in that budget, so...

19 CAPTAIN HICKMAN: Okay. And the Rude's being  
20 decommissioned next month. Was that the original  
21 date?

22 CAPTAIN BARNUM: It's actually being  
23 decommissioned March 25th.  
24 CAPTAIN HICKMAN: That was the original --  
25 CAPTAIN BARNUM: No. It was scheduled to be

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1 decommissioned in August of this year, so we're  
2 basically speeding up that process, if you will.  
3 CAPTAIN HICKMAN: Okay.  
4 CAPTAIN BARNUM: It was the least pain to take  
5 as far as where to take a budget cut. We figured  
6 that it was easier to take the Rude offline rather  
7 than take it across the board VDAT cuts for all our  
8 vessels. So we are trying to maximize the vessels  
9 Thomas Jefferson, the Rainier and Fairweather, keep  
10 those operating at full tempo rather than cut it  
11 back.  
12 DR. JEFFRESS: Gary Jeffress. You mentioned  
13 that you're cooperating with USGS and Corps in the  
14 hydrographic surveying. Whose standards are you  
15 meeting? Whose standards? Are we all doing it to  
16 NOAA's standards or using the Corps standards and  
17 USGS. Do you have separate standards?  
18 CAPTAIN BARNUM: That's a very important  
19 point. I was in the interagency working group at  
20 Ocean Coastal Mapping last week in Fort Lauderdale  
21 and that was with the Corps of Engineers, USGS,  
22 NOAA, Maps was there, John Peladiello (ph), FEMA  
23 was there. There was a variety of folks there to  
24 come together to talk about these very issues. And

25 one of those is, is first having a day-to-day

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1 inventory understanding who's mapping where so  
2 people don't map the same place twice.

3 And the other is coming together on basic  
4 standards of when you survey, that the data is  
5 collected in a manner that can be used by multiple  
6 partners. They can't do that everywhere, but  
7 that's the goal, is to try and maximize that  
8 effort.

9 DIRECTOR SZABADOS: Steve? Mike Szabados. I  
10 believe that the Army Corps has recognized the  
11 vertical control -- the points of vertical control  
12 and it's decreed, it's coming out -- I forget the  
13 gentleman's name, Jack, you worked with him.

14 MR. DUNNIGAN: It's John Reilly.

15 DIRECTOR SZABADOS: General Reilly sent a  
16 decree out to the Corps that they should do it to  
17 NOAA's standard, the vertical control, for all  
18 navigational dredging projects and so forth.

19 CAPTAIN BARNUM: That's a good point, Mike.  
20 That's not only working with the Army Corps, but  
21 also with the states and all our partners to make  
22 sure we use consistent data both horizontal and  
23 vertical.

24 DR. JEFFRESS: The reason I bring it up is  
25 because where the acid test boards is if there's an

1 incident and, you know, collision or oil spill and  
2 they're relying on charts that are not in NOAA's  
3 standards, the courts may reject it. That's why I  
4 use NOAA standards for measuring water level in  
5 Texas because the data goes in the court.

6 CAPTAIN BARNUM: And that's one reason we are  
7 very careful about what we apply to the nautical  
8 chart as to make sure that that meets rigorous  
9 standards.

10 MR. WELCH: Ed Welch. Captain, if you  
11 could -- could we go back to the chart that was  
12 entitled "aggressively map?" Yeah. If we look at  
13 the middle line, the map, the port areas, and you  
14 indicate that basically we're proposing in '09 to  
15 go from the 12 percent capacity to 14.3, which is  
16 a -- you know, it's a nice little bump, do you know  
17 how much additional funding resources that's going  
18 to require?

19 CAPTAIN BARNUM: To go to the --

20 MR. WELCH: Yeah, to go from 12 to 14.3.

21 CAPTAIN BARNUM: Where is Dave Z? He's my  
22 expert on that. Dave's our -- who managed the  
23 shoreline mapping.

24 MR. ZILKOSKI: I don't have the exact figures  
25 in terms of what that would take to go from the 2

1 points, we can go dig out those numbers. But, as  
2 you can see, if we're doing the 12 and the 3, it's  
3 a 6.1. 100 percent requires this 16 million. So  
4 to really bump that from 12 to the 14, and it's  
5 3.1, they kind of go hand-in-hand. You're talking  
6 about somewhere in-between there, so it's probably  
7 another million dollars, another million and half  
8 or so to bump that up little bit, but a lot of that  
9 stuff is done through using better technology, too.

10 MR. WELCH: Okay. I guess the point -- my  
11 observation is, it's a psychological one, you know,  
12 you got the panel's reports that set a bunch of  
13 goals. You're not going to achieve all these goals  
14 in the near term, particularly that port mapping  
15 area. If you had a sustained increase of about 2  
16 percent of your capacity, are you doing 2.3 there?  
17 For the next four or five years, you hit that goal.  
18 And if you're talking about that's a million  
19 dollars, that's -- a million dollars is tough when  
20 you don't have it, but it's not, you know, it's not  
21 the space shuttle.

22 And I think, psychologically, it would be good  
23 for NOAA and National Ocean Services folks to say,  
24 look, we see the various things on this report, we  
25 don't -- you know, we can't achieve everything at

1 once, but we do have one or two goals in sight and  
2 here's our four or five-year plan to hit it.

3 CHAIRMAN SKINNER: Thanks, Ed. I think that  
4 was a very good point. I also, at this point, I  
5 just want to be conscious of the time here and make  
6 sure we get through all five recommendations; so if  
7 there aren't any further questions on the first  
8 one, we will move on to the second. Great. Thank  
9 you, Steve.

10 CAPTAIN BARNUM: So on the second  
11 recommendation, NOAA should take a larger role in  
12 improving partnerships with other federal and state  
13 agencies and other nongovernment entities to  
14 integrate coastal mapping. And we talked about  
15 that with the Integrated Coastal Mapping, and an  
16 example of that was the Integrated Coastal Mapping  
17 workshop last week where they will be developing a  
18 strategic plan and a model and an inventory, so but  
19 they have a long way to go before I think they're  
20 really going to show some demonstrable results  
21 because it's a huge coordination effort.

22 And ensure the nation's federally maintained  
23 channels, approaches, and anchorages are surveyed  
24 with the full bottom coverage technologies. Again,  
25 working with the Corps of Engineers, in both

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1 headquarters and in the field, to make sure that we  
2 are mapping to the highest standard.

3 So in 2008, the actions that we would be  
4 taking is participating with USGS, MMS, Mineral  
5 Management System, DOD, on the Joint Subcommittee



6 on Ocean and Science Technology, JSOST, and the  
7 interagency working group on ocean and coast  
8 mapping, which I mentioned to ensure all our  
9 partners are working at the local level to ensure  
10 that we are collecting data in the most efficient  
11 manner.

12 Support California coastal water multi-use  
13 survey data needs. California has passed a bond  
14 referendum, raised some money, and so they have  
15 come to NOAA to help them manage the contracts, if  
16 you will. And so this is in the spirit of  
17 Integrated Ocean Coastal Mapping and IOOS, that we  
18 collected data and maps used many times, so they're  
19 collecting it for habitat. It's 2,000 square  
20 nautical miles, basically from 10 meters out to 3  
21 miles state waters. It's not an area that we would  
22 normally chart in our lifetime because the  
23 criticality is low, looking at our priority plan.

24 There are some critical areas in there, there  
25 are approaches to the major ports, so but we do see

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1 this as an opportunity to use their funding and add  
2 in - sweeten the pot a little bit to bring it up to  
3 our standards, if you will, so that we are able to  
4 leverage their funding to potentially gain almost  
5 2,000 square nautical miles for a very attractive  
6 deal. And so the state of California will get a  
7 quality product for basically updating the nautical  
8 chart. They will get their data for the habitat.

9 Collaborate with the U.S. Army Corps, and  
10 again, talking about tailoring the  
11 shoreline/nearshore mapping standard  
12 specifications. This is with our LIDAR mapping  
13 project.

14 Explore opportunities to work with FEMA on  
15 their national baseline floodplain map, and also  
16 define NOAA's role in Homeland Security mapping for  
17 safe ports.

18 Execute VDatum on a national plan. The  
19 VDatum's been implemented on an earmarked basis, on  
20 a state-by-state basis, and so we're working  
21 towards making a national plan for VDatum, so  
22 approach VDatum -- vertical datum issues are not on  
23 state-by-state basis. They need to be approached  
24 on a regional basis so we're taking those earmarks  
25 and combining them to approach them on a more

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1 regional basis, such as Mexico and other areas  
2 around the nation.

3 Collect GPS and geodetic and ellipsoidal ties  
4 at water levels, basically tying the water levels  
5 and the GPS together in Alaska, Hawaii, Puerto  
6 Rico, to understand the spatial relationship  
7 between water levels and the land so it helps us to  
8 get a much better idea on the relationship, the  
9 datums, and also be able to answer questions about  
10 climate change. Because is the land going up and  
11 down or is the water going up and down? You have

12 to understand those relationships to understand if  
13 there's really a sea level rise. And how it's  
14 going to affect the particular communities.

15 Produce a workshop to establish national  
16 standards for referencing vertical heights for the  
17 MLLW and NAVD88, that's what Mike Szabados was  
18 alluding to earlier.

19 Discuss potential Army Corps resources,  
20 allocations for further development of VDatum  
21 tools. Working with the Army Corps to again expand  
22 the use of VDatum around the area. And then also  
23 work with the Army Corps in a consistent,  
24 authoritative and accurate channel spacial  
25 reporting system. That's making sure that the

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1 channel frameworks are accurately portrayed on the  
2 chart. It's one thing to place them on the paper  
3 charts with the error budgets in there, but when  
4 you start adding to it electronic navigational  
5 charts on large scale, then any errors are  
6 magnified. So we're trying to work with the Corps  
7 and make sure a lot of that is squared away is  
8 where we're at.

9 So here's a chart for our current capacity, 28  
10 percent of the top 175 U.S. ports for VDatum. Our  
11 100 percent, of course, is all our territories,  
12 including U.S., Alaska, Hawaii. 100 percent  
13 estimate 3-and-a-half million dollars per year.  
14 Our FY-08 goals are 30 percent. So with one

15 million dollar appropriation, we are very  
16 fortunate, we have asked for this in the past and  
17 have not received it, so we are very pleased to  
18 receive that funding this year.

19 So our '09 goal is to, again, that funding  
20 still in '09 for 5 percent and 5 percent more, so  
21 63 percent cumulative. So a lot of the areas  
22 around the United States are low hanging fruit, if  
23 you will. They have well-established datums, and  
24 so we're attacking those. But when we get to areas  
25 like Alaska, Hawaii and the territories, we

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1 understood it's a lot more work, particularly  
2 Alaska. Any questions on -- yes, sir?

3 ADMIRAL WEST: Steve, what's the mandate for  
4 the IOCM, is that a NOAA initiative or was it the  
5 JSOST that directed that?

6 CAPTAIN BARNUM: The IOCM was kind of the  
7 president's ocean action plan.

8 ADMIRAL WEST: Okay. So it is under the  
9 JSOST?

10 CAPTAIN BARNUM: Yeah.

11 ADMIRAL WEST: So mandated to the ports.  
12 Okay. How are you getting the requirements from  
13 Homeland Security? I saw where you're trying to  
14 map to their -- are they giving you their  
15 requirements, are they part of this team?

16 CAPTAIN BARNUM: No. Well, the homeland  
17 security -- the issue of the bullet in there was

18 NOAA, in 2002 and 2003, after September 11th,  
19 mapped many of the major ports along with the Navy  
20 to image the ports for the nation to ensure,  
21 basically to make sure that -- create a baseline,  
22 if you will, for the Navy. So if somebody puts  
23 something bad in the water, then the mine hunters  
24 would come in. And the way they operate, they like  
25 to have a clear baseline to compare, what was there

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1 before and what was there after.

2 And so we're having discussions with the Navy.  
3 The Vice Admiral has had discussions with the Navy  
4 and the VHS about how we'll go about addressing  
5 those requirements. I think the CM debts is going  
6 to be raised and the CMTS, Committee on Marine  
7 Marine Transportation System, as an action item,  
8 how do we go about addressing this department.

9 Because the Coast Guard has - controls the port for  
10 shipping and the Navy is the folks that will come  
11 in when something bad happens. And then so who is  
12 going to be the baseline?

13 And certainly that could be NOAA and certainly  
14 are the partners with the Army Corps and others,  
15 because it's not just the coastal ports. Does that  
16 answer it, sir?

17 ADMIRAL WEST: Kind of.

18 CAPTAIN BARNUM: Kind of? Okay.

19 ADMIRAL WEST: No. The missing piece in this  
20 is Homeland Security. It always has been. What

21 the hell is going on? Chaste protection is how we  
22 do business in the Navy, and so - but that takes  
23 constant, you know, survey and stuff like that. Is  
24 that what they want?

25 CAPTAIN BARNUM: The requirements have yet to

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1 be fully defined.

2 ADMIRAL WEST: Well, you need to press them.  
3 In support of you and your efforts in NOAA, I think  
4 this panel needs to know what the requirement for  
5 surveying is of U.S. waters is for homeland  
6 security.

7 CAPTAIN BARNUM: And we are in discussions  
8 again with the Coast Guard and said we have the  
9 capacity -- well, we have the capability, but we  
10 don't have the capacity. And so to define that  
11 capacity, we need to know which ports and how  
12 often.

13 ADMIRAL WEST: Well, you really don't know  
14 then until you know what they want?

15 CAPTAIN BARNUM: Correct.

16 ADMIRAL WEST: And my guess is probably what  
17 DOD does, but you don't know that for sure and you  
18 should find that out.

19 CAPTAIN BARNUM: We're working on it --

20 ADMIRAL WEST: And you should get the money to  
21 do that, by the way, not out of your budget, but...

22 CHAIRMAN SKINNER: I think that would be a  
23 tremendous help to us as we're trying to promote

24 this, to get that kind of information.

25 CAPTAIN BARNUM: Any other questions? Okay.

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1 Third recommendation, modernize heights and  
2 implement realtime water level and current  
3 observing systems in all major commercial ports.  
4 So NOAA's navigation services form the backbone, if  
5 you will, the critical component of IOOS, so water  
6 levels, telemetry and other. So the recommendation  
7 was expand and fund realtime water level current  
8 observations such as ports and commercial ports and  
9 improve the positioning for heights nationwide as  
10 critical components of IOOS.

11 So here we have the table, current capacity  
12 ports, 100 percent requirement, 175 seaports are --  
13 100 percent estimate is 25 million. Our '08 goals  
14 is 48 seaports total. In '08, we received an  
15 appropriation of 2.8 million dollars. There's  
16 still a significant gap. We saw earlier that there  
17 was a request for two million dollars in '09, and  
18 so that will allow us to provide the infrastructure  
19 and also take on additional operational models for  
20 50 seaports total.

21 The national current observing program update  
22 138 locations annually. As been briefed earlier,  
23 HSRP, our current tables and a lot of our current  
24 data is woefully out of date. Our 100 percent  
25 estimate is four million dollars. '08 goals in 70

1 locations. In '08, we received one-and-a-half  
2 million dollars. And '09, we hope to do 70  
3 additional locations.

4 For NWLON, the National Water Level  
5 Observation Network, 100 percent requirement is 32  
6 million dollars, 100 percent is estimate. In '08,  
7 we'll have 205 NWLON stations. We were  
8 appropriated 20 million dollars. And then, again,  
9 for '09, our goal is 210 NWLON station. Basically  
10 to densify the network, and this is the reference  
11 network, if you will, of the nation for water  
12 levels. Any questions on that recommendation  
13 before I move on? Oh, I'm sorry.

14 So NOAA will take the following actions in  
15 2008. Add meteorological packages to 25 existing  
16 national NWLON stations, expand 25 additional NWLON  
17 stations over five years and harden stations to  
18 withstand extreme weather. The lessons learned  
19 after Katrina and Rita is that the stations -- one  
20 station we had hardened survived, is that correct,  
21 Mike?

22 DIRECTOR SZABADOS: Right.

23 CAPTAIN BARNUM: And so we received funding to  
24 harden additional stations to protect them against  
25 storm along the coast. So this year NOAA ports



1 will establish six additional ports in Pascagoula,  
2 Gulfport, New Orleans, Lake Charles, Sabine and  
3 Cherry Point and add air gap sensors to  
4 New York/New Jersey. And then also, like Houston  
5 and Tampa, we will release the New York/New Jersey  
6 ports economic study.

7 Shown here is the table for capacity, again  
8 showing the number of states participating in  
9 height modernization, 100 percent is all 50 states,  
10 100 percent estimate, 15 million dollars. Our '08  
11 goals is 11 states, again, doing this as a regional  
12 effort. In '08, we received 6.15 million dollars.  
13 And in '09, we're looking to add 16 states, funding  
14 dependent.

15 One of the major efforts this year is to  
16 conduct a nationwide gravity study. The gravity  
17 helps define the geoid, which helps define height.  
18 So collect gravity data for 20 percent of the  
19 country each year for five years, that's 100  
20 percent, at a cost of 39 million dollars.

21 Complete the observational phase of the high  
22 resolution snapshot, basically of the NGS gravity  
23 survey plan. And in '08, we received \$500,000. In  
24 '09, funding dependent. Anything you want to add  
25 to that, Dave, on the gravity?

1 MR. ZILKOSKI: Yeah. That's, I mean, you can

2 see it's a 39 million dollar program and we only  
 3 have 500K to put into it. And what we did is we  
 4 really did a proof of concepts, which we knew  
 5 basically from using some working with the Navy of  
 6 how it would work or not, but add our own insight,  
 7 develop the standards. So really what it is, it is  
 8 funding dependant. We know this will work. It's a  
 9 lot of flight time which is very, very expensive.  
 10 It's not the technology. The technology works.  
 11 We've integrated it into our system, we can process  
 12 the data, we can improve the geoid.

13 All we need now is some platforms to put it on  
 14 and fly it around the country. But if you think  
 15 about flying the country, it's pretty expensive  
 16 doing it. But that's why it's a big jump. We're  
 17 working with federal agencies to try to partner  
 18 with them because they also have the need for the  
 19 data, and in using some of their platforms. The  
 20 instruments are very, very expensive, that's what  
 21 the 500K is, just for one instrument.

22 MR. WHITING: Larry Whiting. There is a lot  
 23 of gravity data that is commercially available.  
 24 Have you got plans to acquire that or -- I mean,  
 25 already existing data?

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1 MR. ZILKOSKI: Yeah, we have -- we have most  
 2 of that gravity data that is available. Most  
 3 people have given it to us. We have over two  
 4 million data points in our database. We've worked

5 with GNA law, AGA (ph) and NOW (ph), and we've  
 6 worked with a lot of oil companies and they have  
 7 given us some of their data in a proprietary mode,  
 8 so that they we're not allowed to give it out. So  
 9 we have a lot of it, and we're always looking for  
 10 more. Part of what this program does is by flying  
 11 the country and getting a different wavelength,  
 12 this is a longer wavelength of the data, we're able  
 13 to validate some of the older gravity information.

14 One of the problems of all the gravity data,  
 15 'cause it's a very, very accurate value, you have  
 16 to know which corrections were applied. And when  
 17 you get gravity data that's already processed by  
 18 someone, they give it to you, they say, well, we  
 19 apply this correction and that correction and we  
 20 tie to this datum. Well, a lot of times when you  
 21 start adding that and mixing and matching it, you  
 22 find these inconsistencies. So what this program  
 23 is going to allow us to do is find those  
 24 inconsistencies and be able to better utilize all  
 25 that local gravity on the ground.

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1 CAPTAIN HICKMAN: I'm sorry, Sherri Hickman.  
 2 I thought for the -- it's not here -- what actions  
 3 -- on the slide, what actions will it take for '08?  
 4 I thought that there wasn't enough money in the  
 5 budget for the six new ports?

6 DIRECTOR SZABADOS: Let me clarify that.  
 7 Actually, there was several ports. Mobile, which

8 was installed this fall, so there's seven new  
9 ports. There will be seven -- six additional to  
10 the seventh. Six of those ports were funded  
11 through -- again, in our base funds, we do not have  
12 federal funding for the operation and maintenance  
13 installation of the ports. That was in the special  
14 supplemental earmarked funding for Katrina, Rita,  
15 and I think also for the Iraqi war, there was a  
16 supplemental put in there by congress for those  
17 ports. With the exception of Cherry Point, which  
18 is Washington, which is to be funded by B.P.

19 CAPTAIN BARNUM: Okay. I mentioned these  
20 earlier, talking about the regional effort for  
21 height mod and height mod consolidating the grants,  
22 the gravity images, developing and demonstrating  
23 global navigation satellite system to the building,  
24 showing what could be done using a GPS, accuracy  
25 GPS, but, of course, doing that you need the geoid

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1 and to do that you need to supply the ellipsoid, so  
2 you think gravity would be done and Newton figured  
3 that out and it's hard to explain what that would  
4 be. But it is a critical component when you try to  
5 do centimeter-level work. So present ten CORS/OPUS  
6 overviews and initiate again a socio-economic study  
7 of CORS and gravity survey plan.

8 Any questions? Now we're at the end of the  
9 three? Okay.

10 Strengthen NOAA's navigation services and

11 emergency response and recovery capabilities.  
12 NOAA's capacity, again, is less than the national  
13 needs. NOAA should seek out adequate recognition  
14 and funding for NOAA's essential support functions  
15 and recommendations. This was largely derived  
16 after the Katrina, Rita and certainly the efforts  
17 that NOAA put forth in opening up the major ports  
18 along the gulf coast back to commerce.

19 In 2008, NOAA worked with the state and  
20 federal agencies at the National Response Framework  
21 Essential Support Functions, to prepare and improve  
22 incident response and product delivery. We are  
23 working very closely with the locals and the  
24 states. We are participating in a workshop that's  
25 going to begin in May. It's basically run by the

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1 IGCA, Intercoastal Canal Association and Ray  
2 Butler's the leader of that, and it's again working  
3 with the states and the Corps and all our partners  
4 of how we will address - if an event like Katrina  
5 or Rita would occur, or even a smaller event,  
6 making sure that we're all coordinating in opening  
7 the ports. Operate six Navigation Response Teams.  
8 We had hoped to have funding for eight Navigation  
9 Response Teams this year, but we only received  
10 funding for six.

11 Continue procurement of a damage assessment  
12 aircraft, which was funding that was received  
13 through a supplemental, after Katrina. March 2009

14 expected delivery date. Contract, Gulf of Mexico  
15 marine degree mapping will continue. We have two  
16 supplementals for Louisiana and Alabama,  
17 Mississippi. We are currently working on the  
18 Louisiana work. It's 935 square nautical miles and  
19 we just had a meeting with the state last week to  
20 map those. That data will be used not only for  
21 identifying marine debris, but also updating the  
22 nautical charts, many of the areas there it's 50 to  
23 100 years old, so that will be very important for  
24 storm surge and also habitat.

25 Coordinate reconnaissance surveys and define

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1 NOAA's role in the homeland security mapping,  
2 again, we talked about that; that's ongoing, to  
3 define that role.

4 And so here's the table showing our capacity,  
5 sixth NRTs, 100 percent, 10, five million dollars  
6 is the 100 percent estimate. '08 goals are 6 NRTs.  
7 13 ports validated. NRTs, not only are they there  
8 for emergency response, but they're there also to  
9 validate our navigational products, coast pilot  
10 paper charts, ENC's, to make sure that they reflect  
11 reality. In '08, received \$500,000 gap analysis,  
12 NRTs.

13 '09 goals is eight NRTs, again, the funding  
14 was there in '08 and it's there in '09, so the goal  
15 is to have eight NRTs up and running next year  
16 depending on the '09 funding. Any questions on

17           that? Okay.

18           I'm going to move on to our last  
19           recommendation. Disseminate NOAA's Hydrographic  
20           Services data and products to achieve the greatest  
21           public benefit, so NOAA's navigation is delivered  
22           equal to make navigation and other uses, again, the  
23           spirit of Integrated Ocean and Coastal Mapping. So  
24           NOAA should expand efforts to deliver its  
25           navigation products and services more quickly and

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1           increase its outreach to make navigation and  
2           non-navigation users more aware of NOAA mapping and  
3           data resources available to them.

4           I think even those who participated in last  
5           year's capital ocean week, there was a panel on  
6           hydrography is not just for charting anymore, they  
7           talked about the multiple uses of hydrographic data  
8           and management of our coastal zone. And I think  
9           one of the connections there was when a gentleman  
10          from the Sierra Club jumped up and raised his hand  
11          and said "how can we help?" It was connecting to  
12          our nontraditional users on use of hydrographic  
13          data and how important it is for management of our  
14          posts.

15          So in '08, NOAA takes the following action,  
16          build 40 electronic navigational charts; release  
17          web based on-line geodetic-user tools; develop and  
18          test high frequency radar products for navigational  
19          community. That's for surface currents; conduct

20 operational testing, integrate ports data into the  
21 coast guards Automated Identification System, being  
22 able to get support data over AIS; to educate IOOS,  
23 the idea is to have an integrated screen where you  
24 have your electronic navigational chart and also on  
25 the same screen seeing your realtime ports data at

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1 the same time, realtime.

2 Working with the Corps of Engineers, IOOS on  
3 the integration of wave data in the ports, that's  
4 taking the wave data that's collected by various  
5 IOOS regions and incorporating that data into the  
6 port system. Improving our tide current product  
7 delivery. Customizable PORTS displays. Hold 12  
8 height modernization user forums around the  
9 country, and three regional height modernization  
10 forums working again within the community to  
11 educate about height mod. Educate IOOS partners on  
12 the multi-use nature of navigation data and  
13 products. And certainly, utilize the Joint  
14 Hydrographic Center, which was referred to earlier,  
15 to expand hydrographic survey technology beyond  
16 traditional charting applications.

17 So, again, showing a gap analysis for the  
18 ENC's, our current capacity or what we have  
19 currently built right now is 601 navigational  
20 charts. Our requirement is 1,000. Six million  
21 dollars, that's what we requested last year. We  
22 received 3.6 in the ap-props, so we had pretty much



23 a significant shortfall. So in '09, our goal is  
24 again asking for that 6.35 million dollars to  
25 produce 741 ENC's. It's important to note here that

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1 in the world of the IMO and IHO is looking at  
2 mandatory carriage of ENC's. This will occur this  
3 summer at NAV 54 in London. And so there's the  
4 strong possibility that the IMO may mandate  
5 mandatory carriage of the ENC's. And that is the  
6 end of that part of the presentation. Questions?

7 ADMIRAL WEST: Yes. Steve, thanks. I've got  
8 several questions. Tomorrow I'm going to ask --  
9 I've got to take these five things to the NOAA  
10 science board next week. I think some of you know  
11 that. So we'll talk a little bit about that  
12 tomorrow. But, while I was reviewing some of  
13 these, just for the general public, a couple  
14 comments.

15 One is, is there a one-for-one comparison  
16 between a paper chart and ENC? Because if you got  
17 one paper chart for a certain number, do you have  
18 to have one ENC, or is there some overlap or is  
19 there any efficiencies with the ENC's?

20 CAPTAIN BARNUM: It's not exactly a one-to-one  
21 relationship.

22 ADMIRAL WEST: That's always the question that  
23 comes up. We're never there. Well, how many do  
24 you need, you know? You know, one ENC may mean two  
25 paper charts. What's the answer?

1 CAPTAIN BARNUM: It's roughly equal.

2 ADMIRAL WEST: Why is it roughly equal? You  
3 don't need to answer -- you know, later, over a  
4 beer. But that's, you know, we make these  
5 statements about we need ten NRTs, why do you need  
6 ten? Why not eight? So we've got to be able to  
7 explain to the general public why these things are  
8 important.

9 So back to my next -- two of our most-wanted  
10 include ports and response team. Let's take the  
11 San Francisco incident. Is there any lessons  
12 learned that's come out of that? 'Cause do we ever  
13 look at lessons learned after the fact about how we  
14 things did? For example, was the response team,  
15 NOAA response team, called for that? I think they  
16 were, right?

17 CAPTAIN BARNUM: NRT was on call. It was not  
18 activated for that event.

19 ADMIRAL WEST: Okay. But there's a lesson  
20 learned there. It was, you know, because we're  
21 asking that we're woefully underfunded for ports.  
22 How did ports do? Did we -- I know it's safe and  
23 efficient moving ships. Is there drift models that  
24 we could have done with the oil spill and was it  
25 used? How effective were what we're saying we need

1       in the real world situation? Is that looked at or  
2       are we going to look at that or what's the size of  
3       that?

4             CAPTAIN BARNUM: Mike, you can certainly chime  
5       in here.

6             DIRECTOR SZABADOS: Well, in the San Francisco  
7       port system, which is, okay, the partnership with  
8       the local partner pays for the operation and  
9       maintenance, they had a funding shortfall and a  
10      number of the current meters were down and it was  
11      identified during the oil cleanup. Such  
12      information would have been helpful in the cleanup,  
13      but because of lack of funding the gauges were  
14      down.

15            ADMIRAL WEST: What do we do with that -- what  
16      are we going to do with that information? Are we  
17      just going to let it set?

18            DIRECTOR SZABADOS: As I plan for budgets,  
19      that's one of the things that we're trying to  
20      include that information to try to justify an  
21      increase in the budget.

22            MR. DUNNIGAN: I mean, I think it's one --  
23      this is one of the reasons why it's clear to us  
24      that there should be a federal responsibility to  
25      maintain the system. You know, we can't depend on

1 the highly variable funding structures of our  
2 partners for something that is so Grade A national  
3 significance.

4 That's the argument that we're making as we  
5 try to move forward in our budget, our longer-term  
6 planning exercises, to justify the funding. We  
7 haven't, you know, carried that day yet within,  
8 say, the '09 request, but there are a lot of people  
9 up on the Hill who are carrying these ideas ahead  
10 of us.

11 CHAIRMAN SKINNER: I think that type of  
12 information, though, again, looking forward towards  
13 how this panel could be helpful on this stuff is  
14 very important to make a case. I mean, I think  
15 that's -- I understand the frustration but with  
16 that type of an incident, having that many meters  
17 down is unacceptable.

18 CAPTAIN JACOBSEN: Tom Jacobsen here. For San  
19 Francisco, OSPR is stepping up to pay more for  
20 ports and keep it up-to-date. But ideally, NOAA  
21 would be doing it. I mean, all of us have been  
22 asking for that for quite it a while. Down in  
23 Los Angeles, Long Beach, we are asking for funding  
24 from OSPR or NOAA and we had to do it ourselves  
25 through the ports, the local ports in L.A. and Long

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1 Beach. So, absolutely, if we can get some federal  
2 funding, that's the way to go.

3 MR. WELCH: Ed Welch. To follow-up with what

4 Admiral West said, is it possible for either NOAA  
5 or this panel to produce a one-page document that  
6 said -- would have said, had recommendations of  
7 this panel been fully in effect, this would have  
8 had -- this consequence in the case of the Cosco  
9 Busan oil spill or these additional resources that  
10 weren't available would have been available, or  
11 something along those lines?

12 ADMIRAL WEST: I think we should do something.  
13 I mean, we're making a case that we got to do this  
14 and we're just sitting here listening to it go down  
15 the tubes. I can make a case that if you're not  
16 going to put the O & M money in it, why are you  
17 installing it in the first place? You're wasting  
18 my money. Mike, you know, I'm always hollering at  
19 you, you're the messenger.

20 There's only so much money and they're just  
21 going to tell you to prioritize, you know, okay,  
22 that's important, but, Jack, go ahead and balance  
23 the books and put it where you think you do. But  
24 we got to start making a case for why these things  
25 are so damn important. Rather than saying, well,



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1 this time we only got eight. Well, why? And look  
2 what happened, had you had O & M, you probably  
3 could have had, you know, some kind of a drift  
4 model for -- maybe we couldn't, maybe. Those are  
5 the type of things we're going to have to start  
6 identifying to put some meat behind what we're

7 trying to say the nation needs to invest in.

8 CHAIRMAN SKINNER: Again, I think that was an  
9 excellent point. That's one of the key things that  
10 we want to talk about tomorrow is where this panel  
11 goes and how to get the recommendations  
12 implemented. So I think some good ideas to start  
13 thinking about for tomorrow.

14 Any other questions, comments? Thanks, Steve.  
15 It was very helpful, at least to me to see it in  
16 that format, so we can -- and looking at what the  
17 100 percent is and the gap is, I think that's a  
18 good way to present for the panel as we move  
19 forward. We certainly like to see less on the gap  
20 side as we go forward, but it's a good way to sort  
21 of portray where we are right now.

22 A couple more administrative issues. If all  
23 of the public members who are here could make sure  
24 that they sign in. I think there are sign-in  
25 sheets -- is that right -- in the back.

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1 And one thing I forgot to do was to approve  
2 the meeting summary from our October conference  
3 call, which we can take care of quite quickly. If  
4 we have a motion to approve the meeting summary  
5 from October -- October something -- October 15th,  
6 2007. Do we have a motion?

7 CAPTAIN HICKMAN: I will make -- I will make  
8 the motion.

9 CHAIRMAN SKINNER: Motion to approve?

10 MR. WELLSLAGER: Second.

11 MR. WHITING: Second.

12 CHAIRMAN SKINNER: Any discussions? All in  
13 favor, aye?

14 (All affirmative responses.)

15 CHAIRMAN SKINNER: Any opposed, the  
16 abstentions?

17 (No responses.)

18 CHAIRMAN SKINNER: The meeting summary's  
19 approved.

20 Next up on the agenda is Helen Brohl who is no  
21 stranger to this panel certainly. Helen is going  
22 to be talking to us about the -- well, first of  
23 all, Helen, we're doing something a little bit  
24 differently. Are you going to go up front?

25 MS. BROHL: If -- can I sit somewhere just

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1 because it's easier to see the screen or if you  
2 want me up there, I'm happy to --

3 CHAIRMAN SKINNER: Whatever's more  
4 comfortable.

5 MS. BROHL: It would be more comfortable here.  
6 My question is do you want me to try to meet your  
7 10:15 break deadline, or do you have the little  
8 extra minutes, the full 30 minutes? I can talk  
9 pretty fast.

10 CHAIRMAN SKINNER: I'm not going to fight you  
11 on this one.

12 MR. BROHL: I'm a fast talker.



13 CHAIRMAN SKINNER: Give her the 30 minutes.  
14 MS. BROHL: Don't kill the court reporter.  
15 CHAIRMAN SKINNER: Have a seat. You got your  
16 30 minutes and --  
17 MS. BROHL: All right. I would like to do  
18 them both. I want to do the overview first and  
19 then the technology update second.  
20 CHAIRMAN SKINNER: Helen, I have already  
21 started contracting out my responsibilities. I'm  
22 going to ask each presenter to tell you about  
23 yourself.  
24 MS. BROHL: That could be interesting.  
25 CHAIRMAN SKINNER: Part of your 30 minutes, so

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1 go.  
2 MS. BROHL: Thank you. I am Helen Brohl. I'm  
3 the Director of the Executive Secretariat of the  
4 Committee on the Marine Transportation System. And  
5 I want to thank Jack Dunnigan and NOAA for inviting  
6 me here today. It's just wonderful to see  
7 everybody, and I'm sorry there wasn't enough time  
8 last night to actually see everybody one-on-one,  
9 and hopefully during the day -- I'll be here most  
10 of the day -- I will get to say hi to everyone and  
11 try to catch up on what you're doing.  
12 I love the fact that you -- that this -- I  
13 think one of the things I enjoyed most about being  
14 on this panel, it was such a proactive panel.  
15 Some -- I mean, I've been on advisory committees



16 where you felt like you were spinning your wheels  
 17 sometimes and it wasn't just because  
 18 recommendations can't always be implemented. It  
 19 was because you felt like you were spinning your  
 20 wheels, and you guys have always been about getting  
 21 the job done and making a difference and your  
 22 Federal sponsor is extraordinary, if I can say so  
 23 myself.

24 My experience in working with an interagency  
 25 committee is you get to know virtually every agency

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1 in some respects and their cultures and while there  
 2 are a lot of good agencies, I just have to  
 3 compliment NOAA. You guys are very lucky to be  
 4 working with NOAA, and those of you who do actually  
 5 work with NOAA are very lucky.

6 If I could today, I'm going to try to keep  
 7 within my 30 minutes and you'll have to give me a  
 8 nudge if you could after about 20 minutes -- or now  
 9 that I'm down to about 15 minutes tops, so I can  
 10 switch over to the second discussion.

11 Because some of you were new, I thought that I  
 12 would do a very short brief, again, on the CMTS.  
 13 And I think it kind of leads into quickly relating  
 14 how the CMTS is addressing some of the most-wanted,  
 15 and then specifically I would like to address some  
 16 of the activities under the integrated action team  
 17 on navigation technology, integration and  
 18 coordination, which I hope reinforces what Captain

19 Barnum said today and hopefully compliments as well  
20 some of that work.

21 Jack Gray was a guy who was on the panel when  
22 it was first started, a terrific guy who worked  
23 with Intertanko for many years and he was  
24 instrumental in developing a report in 1996 which  
25 created the term Maritime Transportation System and

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1 criticized the government a bit, the Federal  
2 government, for perhaps not addressing maritime  
3 transportation needs and Jack had no shortage of  
4 words every year about why aren't we doing this and  
5 why aren't we doing that.

6 And I think, ultimately, if you're running  
7 tankers or any kind of ship, the navigation safety  
8 is extremely important to you, you want to make  
9 sure that the people providing the federal services  
10 that are being provided are being provided in a  
11 holistic manner, that the left hand knows what the  
12 right hand is doing; as a matter of fact, I think  
13 that was their goal.

14 And that report prompted a provision in coast  
15 guard reauthorization to ask the federal government  
16 to have a report to congress which turned out into  
17 the 1999 report, which was a very broad brush  
18 assessment on the Marine Transportation System.

19 It created a precursor to the U.S. Committee  
20 on the Marine Transportation System, an interagency  
21 committee on the MTS, which was technically run by

22 Coast Guard when it was still in the DOT and the  
23 Marine Transportation System National Advisory  
24 Council, which is managed under the maritime  
25 administration.

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1 So the MTS still exists. The I-CMTS is now  
2 the MTS. The Ocean Commission recommended in their  
3 report that the I-CMTS be raised to capital level *capital*  
4 because things can languish over time and the more  
5 that the big bosses don't show up and lower and  
6 lower staff start showing up and they have very  
7 great intentions but policies really can't be  
8 changed. And the committee then had a charter in  
9 19 -- excuse me, what year am I? -- 2005 to create  
10 the CMTS as it is today.

11 And I think it's a pretty aggressive  
12 recommendation from the president in the Ocean  
13 Action Plan, and that's to create partnerships with  
14 agencies responsible for the Marine Transportation  
15 System and the intermodal connections, and we're  
16 still refining where those intermodal connections  
17 stop. Some people say it's our responsibility to  
18 deal with a container all the way to Chicago, I  
19 hesitate to think that because we have enough on  
20 our plates already; however, it's a great  
21 intention. The important part, of course, is to  
22 implement it in a meaningful way.

23 Just so you know, for the record, maritime  
24 transportation has an impact on 18 different

25 departments and independent agencies and offices of

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1 the president. So, we're dealing with -- we're  
2 really hurting lots of cats trying to get them to  
3 do meaningful things to improve the marine  
4 transportation system. The secretary of  
5 transportation is the standing chair of the CMTS  
6 and, as you can see, lots of other agencies,  
7 including the Department of Congress in which NOAA  
8 is held, and we have actively the International  
9 Trade Administration from congress is also  
10 participating on the coordinating board level.

11 What's I think's cool -- and I've said this to  
12 you guys before -- is we have ex-officio members.  
13 Technically, they don't vote but, believe me, their  
14 opinion counts a whole lot. And that office is  
15 under the White House, including the Office of  
16 Management and Budget, and CEQ, Homeland Security,  
17 and so the potential to from the very beginning  
18 generate ideas and policies that kind of have a  
19 backed up support from administrative offices is  
20 super important.

21 Just so you know, because as we go through a  
22 little of this, I think it's - quickly talk about  
23 the process of writing this committee. The  
24 coordinating board -- I've said this, I'm sorry, to  
25 you guys before, and I apologize, some of it's a

1 repeat from a previous meeting.

2 The capital thinks I'm really, really cool and  
3 real glamorous, and I love to say that I work for a  
4 cabinet level committee, but in reality, the CMTS  
5 doesn't meet all that often. We've met four times  
6 since 2005, which is better than the Committee on  
7 Ocean Policy which has met once, so we feel good  
8 about that. But the fact is it's hard to get  
9 cabinet-level people together.

10 The real heavy lifting is with the  
11 coordinating board, but they are no slouches. They  
12 are the administrative and directors of the many  
13 department agencies, which are many, many more than  
14 the 18, who sit around the table to create the  
15 policies that are recommended to the CMTS.

16 And from my vantage point, when you have the  
17 administrator of NOAA and the manager for the Army  
18 Corps of Engineers, and for Admiral Allen sitting  
19 there from Coast Guard and the Maritime  
20 Administration and USDA and Energy, and any number  
21 of agencies, including Customs and Border  
22 Protection, or the Transportation Security  
23 Administration; if those directors are around the  
24 table proposing policies, that's pretty far down  
25 the road, okay. It may not be the big boss signing

1 off, but if all those agencies are supportive, I  
2 think you're doing pretty darn well.

3 And, I mean, the executive secretary is the  
4 staff office and I'm the director of the staff  
5 office. Integrated Action Teams are just a term  
6 for task teams that are put together to take on  
7 some of the actual work and they are intended to be  
8 managed and led by the agency members rather than  
9 the executive secretariat. Ultimately, if those  
10 agencies don't buy into what you're doing, the  
11 staff can do all kinds of work but it's not going  
12 to go anywhere.

13 The Integrated Action Teams are - the big ones  
14 are National Strategy. We're in the home stretch  
15 of that. I'm going to make some references to the  
16 draft recommendations as we move along here. The  
17 coordinating board approved that on February 26th  
18 to be referred to the CMTS. And I look forward to  
19 bringing that to the panel when that's done.

20 The MTS assessment -- and Bahar is here from  
21 Volpe working from the Army Corps of Engineers to  
22 work on that, has turned in a phase one of part  
23 one, and it's moving along. But, frankly, it does  
24 take some financial commitments. And they were  
25 able to provide some for the first phase and

1 request some in '09, the Army Corps, I should say.

2 Maritime data collection, the inventory's

3 completed and I believe that when you were given  
4 your e-mail background information for this  
5 meeting, it was provided. I didn't want to bring  
6 copies because it was fairly large, it's a PDF  
7 version. But if you pull it up on your computer,  
8 you can use the links on there and it will take you  
9 directly to different federal maritime data  
10 sources, again, that's federal maritime data  
11 sources. It's -- it may not be a big, huge thing  
12 when you look at it but, in fact, it's kind of a  
13 first step of understanding the Mayan arts in the  
14 federal government.

15 It covers 12 different departments and  
16 agencies that are somehow doing some kind of  
17 federal maritime data collection. It just  
18 reinforces the fact that maritime transportation is  
19 all over the place in the federal government.  
20 There is no FAA for maritime transportation.

21 And a portal -- a more indirect portal, for  
22 those of you are in the research part of this, is  
23 in various stages of development. We're in beta  
24 trials right now. And the goal of -- if you just  
25 took your inventory now and clicked on a link,

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1 that's great, it would take you to a federal source  
2 and you would have that document. But to do any  
3 real detailed research, it's only as good as you  
4 really need to do like in an edit-and-find in that  
5 document. It doesn't take you deep into the

6 documents themselves. This portal will do that,  
7 like a Google search, and that should be completed  
8 in April.

9 The Navigation Technology Integration Team,  
10 that was developed -- that was approved in October  
11 of 2006. NOAA leads that camp think, Jeff Dunnigan  
12 and Mike Szabados who provided Dave MacFarland, who  
13 you know Captain Dave MacFarland, who was the lead  
14 on this, and I'm going to talk a little bit more  
15 about that in a minute.

16 Other activities are trying to connect the  
17 dots in an appropriate way between other MTS  
18 federal advisory committees. There's about a  
19 thousand federal advisory committees in the U.S.  
20 government of which approximately 70 have some  
21 direct or indirect impact on MTS. But indirect  
22 means they may just have to concentrate about some  
23 trade aspects and could impact such things as like  
24 import quotas and things like that.

25 There's about 20 that are directly related to

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1 the Marine Transportation System. One in  
2 particular that has a lot of alignment with you  
3 guys is the Navigation Safety Committee run by the  
4 U.S. Coast Guard. And there has been some exchange  
5 between your committee and theirs, and you're both  
6 dealing with E-navigation issues and charting and  
7 mapping, and they're starting to do some broad  
8 visioning on what they think the most safe system



9 would be.

10 And I was really happy that at their last in  
 11 meeting Washington, D.C., Dave McFarland did  
 12 present your -- the most -- excuse me, Scott Rainey  
 13 presented the most-wanted, which is terrific. I  
 14 was trying to make sure that you guys are talking  
 15 to one another -- you got to understand, there are  
 16 very specific rules and regulations regarding  
 17 federal advisory committees talking to one another.  
 18 So you have to be careful, but it was great that  
 19 they understood that you had a most-wanted list.  
 20 And that Dave MacFarland talked about the  
 21 Navigation Technology Integrated Action Team.

22 So it's, you know, again, there are  
 23 appropriate ways to communicate with one another,  
 24 but I think it's terrific for them to understand  
 25 that a whole another advisory committee addressing

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1 another agency has some similar things and so,  
 2 hopefully, they're looking at that.

3 The permanent status that's only as good as  
 4 anybody wanting it to continue. The CMTS exists by  
 5 presidential directive. The new president could  
 6 choose not to pursue it. It's only as good, as  
 7 again, as the interest of agencies that want to  
 8 participate. There is no -- the CMTS is not a  
 9 legislatively created organization.

10 Communications, planning is important, how do  
 11 we get the word about just our products, but more

12 importantly, about the importance of the Marine  
 13 Transportation System. And we -- the coordinating  
 14 board approved the creation development of an MTS  
 15 Day on Capitol Hill to role out the strategy when  
 16 it's done and other MTS products. Again begin  
 17 promoting -- not promoting the MTS, that's the  
 18 wrong word -- but educating them of the importance  
 19 of the Marine Transportation System and some of the  
 20 federal programs that participate.

21 That's in development and, Jack, I don't know,  
 22 you've been so busy -- that you know that NOAA's  
 23 leading that task, and we look forward to that.  
 24 And to the extent that there's interaction with  
 25 stakeholders, nonfederal stakeholders to make that

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1 happen, remains to be seen. But an interagency  
 2 group, that's huge, that's a very big -- it may  
 3 seem like a no-brainer, but, in fact, that's a huge  
 4 thing. You have oceans week every year, maritime  
 5 navigation. It's not necessarily -- you guys are  
 6 engaged through NOAA, but the larger portions of  
 7 marine transportation and their impact on oceans  
 8 aren't necessarily dealt with. So it will be  
 9 interesting to see how that proceeds.

10 The president directed that the CMTS take on  
 11 looking at the data and analyzing the programs and  
 12 the budgets. We haven't had staff for that.  
 13 Maritime administration recently announced that  
 14 they're just doing it on their own and will be

15 reaching out to some of the agencies. I don't know  
16 where that's going to go, but it's a big job; no  
17 matter how you look at it, it's a huge job. There  
18 are bits and pieces of inventories around, but  
19 nothing holistically and, ultimately, when you have  
20 to define where does the marine MTS portion stop or  
21 start? Is everything in the Army Corps? That  
22 you'll know, is everything in the Coast Guard that,  
23 maybe? So it's a big job.

24 Marine transportation in the northwest  
25 passage. I know this is a hot issue for those of

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1 you who are paying attention to what's going on in  
2 the federal government. They have to be clear  
3 about this, that the marine -- that the CMTS has  
4 created an interagency cast team. It's not to do  
5 what the state department is doing or other  
6 agencies in this, including the ocean related ones,  
7 but it's looking at the potential for commercial  
8 transportation or shipping in the northwest  
9 passage. And it will probably proceed really once  
10 the state department has completed their  
11 interagency policy review paper. The goal is to be  
12 complementary, not to trip over ourselves.

13 And I think I have one more thing I was  
14 forgetting here of stuff we've done. We've also  
15 are going to have -- you guys can relate to this --  
16 we talked about the Marine Transportation System  
17 that had a lot of agencies around the table, but a

18 lot of the staff around aren't necessarily that  
19 educated on how the Marine Transportation System  
20 works. We're going to -- maritime administration  
21 is going to be the team leader to have a field trip  
22 to Hampton Roads in order to bring CMTS' members  
23 staff there -- it would be really great if we could  
24 get OMB staff there -- to see how a ship works, to  
25 understand the value of the navigation systems on

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1 board, and the importance of maritime  
2 transportation trade to the country. So we look  
3 forward to that, and that hopefully will be in the  
4 next -- or perhaps late spring, early summer, okay.

5 If I could, specifically to how the -- your  
6 most-wanted came to the CMTS. Admiral Lautenbacher  
7 brought it almost a year ago to the CMTS and  
8 immediately it was referred to the national  
9 strategy development team. And there are portions  
10 perhaps not stressed verbatim in your most-wanted,  
11 but there are many ways in which that the  
12 most-wanted is expressed in the national strategy.

13 Also the Navigation Technology Integrated  
14 Action Team received it, and the good news, of  
15 course, is that NOAA leads that team and they  
16 thoroughly understand the impact and interest of  
17 what you were trying to say. And I will talk about  
18 some of their specific work plan projects in a  
19 minute. Again, you had talked about overlapping,  
20 having the federal agencies talk to one another.

21           One way to do that is also to have federal  
22       advisory committees talking to each other in an  
23       appropriate manner. And I mentioned that the HSRP  
24       and the Navigation Safety Advisory Committee had  
25       been in contact. We do try to reach out and give

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1       presentations to other Marine Transportation System  
2       federal advisory committees so they understand that  
3       there are other people doing things, and where the  
4       federal sponsors could get together and talk about  
5       them, we encourage it.

6           Now, the national -- you had I'm going to  
7       hopefully comment on what Steve had talked about.  
8       You had talked about aggressively mapping the  
9       nation's shorelines technology in the strategy.  
10      And please understand that these -- we don't have  
11      actual priorities and more detailed tasks. We have  
12      action items, but no real tasks in the national  
13      strategy. If we had gone there first and foremost,  
14      we would never get the strategy done. But one of  
15      the important aspects is -- once this is  
16      approved -- is just to prioritize the action items  
17      and develop some specific tasks. But in many  
18      cases, there are activities already going on, as  
19      Captain Barnum had acknowledged.

20           So the national strategy calls for deliverance  
21      of timely, relevant and accurate navigation safety  
22      information to improve navigation safety. I know  
23      it's a broad-brush statement, but fortunately, we

24 do have some activities going on and there are some  
25 existing already outside the CMTS. And again, I

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1 guess should -- but I should emphasize the CMTS  
2 does not replace agency activities. It's not unto  
3 itself an agency. It's just a forum by which  
4 agencies work together and promote information in  
5 the Marine Transportation System.

6 We talked about integrated coastal mapping  
7 efforts in your most-wanted. The national strategy  
8 does calls to enhance and improve existing  
9 frameworks that plan for, operate and maintain and  
10 mitigate risks. But we believe, the way we would  
11 interpret that, is to address coastal mapping and  
12 anything that supports navigation safety.

13 NOAA should take a larger role improving  
14 partnerships. Well, in fact, NOAA has a very  
15 active supportive role in the CMTS and what the  
16 CMTS means, and that's the partnership. And I  
17 can't thank Admiral Lautenbacher enough, and I  
18 sincerely hope that that continues in the new  
19 administration. Should Admiral Lautenbacher not be  
20 the head of NOAA on the new administration, we  
21 would like that.

22 Modernize heights and implement realtime water  
23 levels is one of your issues. And it does call for  
24 national strategy calls to deliver timely, relevant  
25 accurate navigation safety information to mariners,

1 including realtime information systems, realtime  
2 current velocity systems, and, in addition, the  
3 Navigation Technology Integrated Action Team was  
4 called to coordinate realtime observations in their  
5 scope, including AIS. But we believe that this  
6 addresses modernized heights and implement  
7 realtime. And I will talk a little bit in  
8 follow-up what you guys could do when the strategy  
9 is actually finally done and presented.

10 Strengthen those NOAA's NAV services emergency  
11 response. The NAV's -- the strategy does recommend  
12 enhancing and improving existing frameworks to  
13 mitigate risks. And emerging issues, proposed by  
14 Admiral Lautenbacher and Admiral Allen, as was  
15 alluded to by Captain Barnum, was requested CMTS  
16 engagement on response. It's not yet formulated,  
17 and I need to -- we are fighting Coast Guard --  
18 when you get into anything that's related to  
19 security, a lot of people are interested in having  
20 their fingers in that one. We just want to make  
21 sure that if the CMTS takes it on, it's not  
22 duplicating other efforts; whether it's under the  
23 maritime debate awareness efforts or the marine  
24 security partnership coordinating committee.  
25 There's all kinds of things out there. We just

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1 need to clarify a little bit more what Admiral  
2 Allen had in mind when he really suggested that the  
3 CTMS work take this on to help coordinate.

4 You talked about disseminating NOAA's data and  
5 products for greater benefit. Again, we believe  
6 that the national strategy delivers this in a  
7 broad-brush way deliver timely, relevant, accurate  
8 navigation safety information to the mariners. It  
9 does say mariners as compared to a broad-based  
10 public interest.

11 There's just our contact information. I'm at:  
12 Helen.Brohl@cmts.gov. And please feel free to  
13 contact me at any time.

14 If we could go to the second presentation.  
15 How am I doing on the time, Tom?

16 CHAIRMAN SKINNER: We're at about 10:15 right  
17 now.

18 MS. BROHL: I think I can do this in about  
19 five minutes.

20 CHAIRMAN SKINNER: Great.

21 MS. BROHL: And we can always follow-up with  
22 questions after and, in fact, I encourage you to do  
23 so, especially with Dave MacFarland.

24 The Navigation Technology Integrated Action  
25 Team, when the CMTS was created, they didn't have

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1 staff so they had these broad ideas of integrated



2 action teams, but there wasn't anything that  
3 addressed navigation safety.

4 And having come from the HSRP, I was very  
5 sensitive to that. And even in the private sector,  
6 we spent a lot of time promoting those products  
7 that support navigation safety. So I was very  
8 pleased that NOAA was willing and the board  
9 approved this Integrated Action Team. I just  
10 should emphasize that this draft strategy, while it  
11 was approved by the coordinating board, it has  
12 thorough interagency review and it technically is  
13 not approved all the way through the White House.

14 But I find it very hard to believe that any of  
15 those components would be taken out in the final  
16 document. These are not controversial issues.  
17 These are very much supported by all the agencies.  
18 So I don't think I'm going out on a limb to go  
19 mention them to you, but do recognize that,  
20 ultimately, we have to see with the final strategy  
21 what the president finally approves. Anyway, to  
22 that -- the strategy supports these things, which I  
23 had mentioned before, so felt that the Integrated  
24 Action Team on navigation technology integration  
25 should seek to address them.

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1 When we pulled together -- the three main  
2 agencies that hail, navigation technology, Army  
3 Corps, U.S. Coast Guard and NOAA. Those are the  
4 ones that are actually providing information, as

5 compared to observing or supporting information --  
6 got together at the staff level, we found that if  
7 you asked staff, gee, how many of your products  
8 would you like to see integrated? And a lot of  
9 them raised their hand -- and many of them are  
10 doing things already, as Steve said -- but how many  
11 do you want -- would you like to have the CMTS  
12 affirmation of them? Everybody throws a lot of  
13 things in the pot, somehow, it sounds really good,  
14 like, wow, this will automatically get around all  
15 my bosses and I can have it front and center. We  
16 want to avoid that; ultimately, it has to be  
17 approved by the people in charge.

18 So when Dave MacFarland did an inventory  
19 asking people to put it down and come up with a  
20 full list, they gathered together 19 different  
21 ideas which were divided into working groups, kind  
22 of batched, and I'll show those in a minute. And  
23 because in the last year of administration  
24 everybody talks about low-hanging fruit, what  
25 low-hanging fruit can we produce to show what the

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1 administration did?

2 They were cognizant of trying to come up with  
3 something short-term that they could show some  
4 integration on, and one of them was the tide-aware  
5 electronic chart.

6 The subgroups in this Integrated Action Team,  
7 there were four. One is based on AIS products, and

8 naturally led by U.S. Coast Guard -- and jump in,  
9 Steve, if I say this incorrectly, because I'm not  
10 the techie, you guys know that -- but if you're  
11 going to use -- combine more products with AIS,  
12 let's say you want to put ports and AIS together to  
13 present to the mariner, or anything else,  
14 ultimately, you have to have it present in the  
15 standard art or terminology.

16 And everybody knows that there are different  
17 terms different among agencies. And, you know,  
18 Mike Szabados can say I can push a button and ports  
19 would be in AIS. It's actually more complicated  
20 than that in the terms of the presentation portion.  
21 So the team is working very hard to come up with  
22 terminology to standardize that. That's actually  
23 more challenging than it sounds, but they are  
24 really having -- I think they have a lot under the  
25 belt and they are getting closer, correct? No.

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1 But that leads and that just reinforces the comment  
2 that was made before, how are you standardizing  
3 terminology? But there are other products as well.

4 Then the -- then there are products batched to  
5 under -- with a NOAA lead under charting, data  
6 collection and distribution. And there are three  
7 projects designed to improve the accuracy of  
8 charts. Third one is an Army Corps lead  
9 navigational data collection and distribution.  
10 They are -- have some of the terminology guys who

11 are working on some other standard addition of  
12 terms. And what we found really interesting is  
13 that when the U.S. Army Corps of Engineers -- and  
14 it's interesting, because NOAA, Army Corps and  
15 Coast Guard talk together all the time, there's no  
16 lack of effort to talk together and integrate.

17 But despite that, the Army Corps, I think  
18 because the idea was being handled out of  
19 Mississippi with the research guys, as compared to  
20 the application people, were trying to develop an  
21 observation system for the inland waterway because  
22 they were tired of tugs running into the locks and  
23 dams -- for its aging system enough as it is  
24 already -- and they were going to do a system based  
25 on GPS, not AIS.

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1 And that's completely turned around. There's  
2 full coordination and collaboration, so that if you  
3 were on the draft coast and you did go into the  
4 inland waterway system, it would be a seamless  
5 system of observations and presentation. I think  
6 that, if CMTS did anything, it just brought that  
7 together. It may have happened eventually, it  
8 might have come around that way, but the more you  
9 have everybody saying, wait, we really are supposed  
10 to work together; and again, left hand/right hand.

11 The operational coordination issues, U.S.  
12 Coast Guard lead again. There are some projects to  
13 develop coordination. And that's a little bit

14 overlaps with the fact that if you're going to do  
15 AIS on the inland waterway system, the Coast Guard  
16 is going to have to put the antennas for that and  
17 you have to coordinate for that.

18 Now, I understand there's some beta trials,  
19 they're going to do one in -- where is it -- I'm  
20 going to have to go back and look at that, but  
21 they're going to do presentations. It's a  
22 challenge with the inland waterway type guys, you  
23 know, some of the big companies are very supportive  
24 and are investing in equipment now as to make sure  
25 they're on line with this. But in, you know, a lot

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1 of mom and pop organizations, and they kind of like  
2 looking out the window, but you don't always get  
3 the current readings very well, and again, as long  
4 as you have tugs running into locks and dams, then  
5 clearly more information is warranted.

6 The last really unofficial part of that is the  
7 emerging issues section and everybody's trying to  
8 make sure we're clear on that. Now, I know that's  
9 a very broad brush, and I apologize because there  
10 is more data. As the working groups are responding  
11 to this new work plan, there are specific projects,  
12 and I think ultimately the best person to explain  
13 that is David MacFarland. I would stumble over  
14 it -- and I'm out of time anyway -- but I encourage  
15 you to contact Dave MacFarland if you have any  
16 questions or comments about what's presented.

17           He's interested to hear what stakeholders  
18           want, in particular, the last coordinating board  
19           member. The chair of the coordinating board for  
20           2008 is Shawn Conotin (ph) with the Maritime  
21           Administration. And he made an obvious comment,  
22           and that was that he sincerely hoped there was  
23           outreach to stakeholders because, ultimately, you  
24           know, unless it's meaningful to the mariner,  
25           there's no point in chasing it down.

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1           So I know that the team has talked about that  
2           a great deal in one of five venues in which they  
3           can present this in a more detailed manner to which  
4           you can respond specifically to your specific  
5           interest. I will be happy to answer any questions  
6           and then let you go to break.

7           CHAIRMAN SKINNER: Thanks very much, Helen. I  
8           will do it from the side. And we appreciate you're  
9           being here and obviously the work that you're doing  
10          mostly tied to this panel. We appreciate the vigor  
11          with which you've gone through your presentation,  
12          but I want to make sure that we do have enough time  
13          to ask questions and comments, so let's push back  
14          the schedule a little bit and see if there were any  
15          comments or questions of folks? There's a test  
16          afterwards, so...

17          (No responses.)

18          MS. BROHL: That could be good, could be bad,  
19          but...

20 CHAIRMAN SKINNER: Helen, are you around  
21 today? Are you staying for the meeting?  
22 MS. BROHL: Yes. I'm going to stay for the  
23 meeting. I'm here most of the day.  
24 CHAIRMAN SKINNER: Elaine?  
25 MS. DICKINSON: I have a question. You talked

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1 about the national strategy which seems to cover  
2 everything that you're doing, but it hasn't been  
3 approved; so when will it be approved and is that  
4 going to happen in this administration, probably be  
5 better than not, I'm guessing.  
6 MS. BROHL: The strategy was approved by the  
7 coordinating board which means Admiral Lautenbacher  
8 and all the other big wheels at that table approved  
9 it and moved it forward with some minor look-sees  
10 from state department on, added verbiage regarding  
11 the Arctic navigation.  
12 And that has -- we just approved with the  
13 chair on the manner in which it will go forward for  
14 some new departmental reviews, but we haven't had  
15 the secretary sign on the dotted line. The  
16 procedure will be that we will get some  
17 departmental sign off and then -- which we're going  
18 to have a very aggressive schedule, it's not going  
19 to go through OMB. It will go directly from the  
20 CMTS to departments. And people like me will be in  
21 charge of nudging and getting that back really in a  
22 short turnaround time. We're talking about a

23 three-week turn around. But there should be --  
24 frankly, it takes so much vetting at every agency  
25 level, that if the Department of Homeland Security

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1 talked to the Coast Guard about it, Admiral Allen  
2 could say, oh, we're on board.

3 And I, frankly, this administration has been  
4 the only one questioning them; that doesn't give it  
5 to us, we're not sure we want to look at it. So  
6 everybody else, frankly, we have concurrent  
7 previous to this. So we have our fingers crossed  
8 that it won't take long. Any comments, through,  
9 that do come in will go to Secretary Peters and  
10 they will compile them. But we don't expect very  
11 many, if at all, and she will make sure she's  
12 comfortable with that. But that should be a  
13 fasttrack because the secretary's office has been  
14 engaged from the beginning and all the policy staff  
15 had read it immensely and thoroughly, and then it  
16 will go to the full committee.

17 But we're hoping for a full committee meeting  
18 in April, and that that will be the final from  
19 them, the CMTS will send it to the president. And  
20 because we're also asking, since the White House  
21 offices sit on the committee, we're asking them to  
22 sign, as if they're full voting member in this  
23 process -- which is kind of funny, we'll see how it  
24 goes. But again, they've had, except for domestic  
25 policy guys that are too busy, we're just hoping to



1 get it through them. But OMB has been on board all  
2 the way and has made comments all along. Homeland  
3 Security counsel's made comments all along, so  
4 fingers crossed. I mean, it is -- so, in other  
5 words, this administration and hopefully next year.

6 CHAIRMAN SKINNER: Other questions or  
7 comments? Thanks very much.

8 MS. BROHL: Good. Thank you.

9 CHAIRMAN SKINNER: We're on break for about 15  
10 minutes. Be back here in a little bit less, around  
11 20 of, that would be great.

12 (Thereupon, a recess was taken.)

13 CHAIRMAN SKINNER: We're back convening here.  
14 We've got -- we're going to start the rest of the  
15 morning with first our presentation from Windell A.  
16 Curole from Louisiana. We will then follow with a  
17 public comment period. And just so everyone knows,  
18 this is another thing we struggled with, our public  
19 comment period. We originally had them at the end  
20 of the day and some people would have to leave  
21 before we were able to hear public comment, so we  
22 split it up between three 15-minute periods, and we  
23 had adjusted it, if there needs to be some longer  
24 times here. I think the times will probably be  
25 11:15 for the first public comment, and then two

1 periods this afternoon. And then that will be  
2 followed by our panel prior to going to break. So  
3 with that, Windell.

4 MR. CUROLE: Well, good morning. I appreciate  
5 the invite for being here. And I had a chance to  
6 talk to some of the people last night and see that  
7 we all had some pretty common goals and interests.  
8 And it's always good to see somebody who grew up  
9 from Louisiana, and some of us never grew up.

10 We come from a special place, especially south  
11 of Louisiana, it's one of these places where you  
12 truly been brought up to work hard and to play  
13 hard. We know there's just a few seconds in every  
14 lifetime and you better take the biggest bite out  
15 of each one. And when you look at the hurricanes  
16 that hit us in 2005, I think that's very -- it  
17 tells you what life is about, how quick things can  
18 turn around. There's still a lot of sadness about  
19 the effects we were talking about in New Orleans  
20 last night. It's coming back pretty well, but  
21 still, you still drive through some neighborhoods,  
22 there's still that feeling and now also that  
23 shadow. Even though we're better protected,  
24 there's that shadow of the event happening again.

25 But one of the lessons here, we talked about

1 lessons in Florida, and word is that we don't learn  
2 lessons. It's pretty obvious, one of the things  
3 that never came up. Katrina was not in South  
4 Mississippi, as Louisiana thinks. That storm with  
5 the type of power, and the storm surge and the  
6 width, the eye of 38 miles, if it would hit  
7 anywhere from Brownsville, Texas, to Maine, it  
8 would have devastated any place it hit. And that's  
9 the thing that really has not gotten out, that we  
10 really need to hit on the risks that all of us --  
11 that shadow's not just over South Louisiana and New  
12 Orleans -- it's over all the coastal United States.

13         Myself. Yeah, I'm from South Louisiana. And  
14 my main job is working for the South Lafourche  
15 Levee District. We are the local sponsors for the  
16 hurricane protection project. I was authorized in  
17 1965. And as of this date, it has not been  
18 completed. But we're also very fortunate that we  
19 were the only levee system south of the  
20 intercoastal that did not flood from the storm,  
21 either Rita or Katrina.

22         And, you know, in business when you're lucky  
23 and good -- we were lucky first. But when you're  
24 lucky and good, you get money and people to pay  
25 attention to you. In government, when you're lucky

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1 and good, you get ignored. We have not seen any  
2 money. We're not getting much help. We've truly  
3 been ignored for the point of having some problems.

4           Also because I'm from that area, I work for  
5           the parish -- we don't call them counties -- we  
6           call them parishes. I'm the coastal management  
7           coordinator for the parish. I am also the  
8           emergency manager when it comes to hurricane  
9           evacuations for the parish, so I do these things.  
10          I work for sea grant. My first paying job  
11          back in 1976 was at the sea grant tied to NOAA,  
12          that's in the beginning. And again, from that  
13          beginning where we worked for the fishing industry,  
14          working for some emergency preparedness, if it had  
15          to do with water, I had my hand in it. I'm still  
16          doing it, and that's why my hands are always wet,  
17          from shaking hands with me.  
18          And again, when I give this talk, if there's  
19          any questions that come, don't hesitate. This is  
20          about a discussion and talking about some of these  
21          issues. It's one of the key things, is the  
22          difference -- you know, the laws in the United  
23          States are built on all of the United States. But  
24          when you have something that's extremely different  
25          and you don't have a lot of people there,

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1          understanding gets kind of muddled a little bit.  
2          And the Mississippi River, you know, it is -- it is  
3          America's river, it's one of the great rivers of  
4          the world and the effects of that -- we don't treat  
5          it differently when we look at the laws in  
6          Washington, D.C. That's why we're always catching

7 up. A lot of the laws involved in flooding and a  
8 lot of these issues come from what's happening in  
9 the Mississippi River.

10 This picture is shot from the Space Shuttle,  
11 all right, and here's the Mississippi Valley, and  
12 this used to be -- the valley used to be water  
13 until we started levying it off. And as it comes  
14 down and probably around here, we were probably  
15 around Baton Rouge area. This is New Orleans.  
16 It's kind of interesting. We always think of the  
17 rivers going north and south. So we talk about the  
18 east bank and west bank. But actually, the  
19 Mississippi River, as it goes through New Orleans,  
20 goes east/west -- yeah, east/west, so actually,  
21 there's a north bank and south bank. Nobody says  
22 that. So basically the sun rises sometimes in the  
23 west bank because of the curvatures.

24 So it's very -- but here, and the picture also  
25 talks about this levee coming here, is really the

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1 understanding of what built South Louisiana. South  
2 Louisiana was built by the Mississippi River. And  
3 I'm going through a few slides. That's a critical  
4 thing to understand, because if you don't  
5 understand geology, and especially unique geology.  
6 You're never going to understand the biology on top  
7 of it and the sociology, and then the issues that  
8 you deal with.

9 But the other thing I like about this picture

10 is that it shows a small coastline -- and you're  
 11 catching all of Florida here. Now, when it comes  
 12 to fisheries, Louisiana has four times the  
 13 fisheries than Florida. I like the National  
 14 Geographic said, you know, when you compare South  
 15 Louisiana to the Everglades, it makes it look like  
 16 a petting zoo. And then the reason is because of  
 17 this estuary that we have.

18 An estuary is the most productive portion of  
 19 any type of system, ecosystem. And Florida only  
 20 has basically the mixture of the rainfall that  
 21 falls in Florida and the Gulf of Mexico. We have  
 22 41 percent of the United States rainfall, every  
 23 drop that comes here, and it's built this gigantic  
 24 system here, that comes here. Thirty percent of  
 25 all coastal marsh comes from South Louisiana, and

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1 that's the key to the production it has.

2 But the other thing, alligators. You know  
 3 what, National Geographic did a two-hour special.  
 4 I was talking to them, we had a couple of fisheries  
 5 scientists in Louisiana that really did the  
 6 critical research on alligators. Two hours  
 7 special. They did five minutes in Louisiana and  
 8 spent the rest of the time in Florida and in  
 9 Australia. And the thing is, why is that? 'Cause  
 10 if you're doing television, you have a lot more  
 11 customers, 18 million people in Florida, than you  
 12 do in 4 million in Louisiana.

13           The thing is when it comes to production of  
14   alligators, Louisiana produces about 30 million  
15   dollars worth of products where Florida produces  
16   just about 9 million. And there's a lot of nice  
17   comparisons between Florida and Louisiana. But the  
18   key is the Mississippi River.

19           And again, a lot of people don't realize,  
20   here's New Orleans, all right, here's Baton Rouge.  
21   But we have some -- on the west side, on the south  
22   side of the river, on this side, we have about  
23   300,000 people living south of New Orleans here,  
24   this area -- and this is the levee system I'm  
25   involved with -- we have some 200,000 people.

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1           So when I tell people I live 30 miles South of  
2   New Orleans, they say well, you live in the Gulf.  
3   Well, the geography is this -- even when you fly in  
4   New Orleans, it just tells you about the marsh all  
5   around there. In fact, one day the colonel from  
6   the Corps of Engineers District in New Orleans had  
7   invited the Dutch over -- this is maybe about eight  
8   years ago -- and he was giving the talk and he  
9   said, look at this, who else would put a city where  
10   this is? You know, marsh all around, a river that  
11   floods every four years, a lake to the north. He  
12   says only the French would build a city here. I  
13   said, that's right, colonel, and only the Americans  
14   would buy it.

15           But the bottom line is Jefferson -- Jefferson

16 said we're going to buy this city because he knew  
 17 the United States could not grow, he knew the  
 18 midwest would be locked if we didn't have New  
 19 Orleans. He knew New Orleans would be the greatest  
 20 city in the world. And, in fact, he would have  
 21 been correct because, you know, it's location,  
 22 location, location: The greatest river with the  
 23 production in the midwest and meeting the world  
 24 through that city.

25 The thing that happened, though, yellow fever

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1 and the geology around it has conspired not to make  
 2 it the greatest city with the challenges. But it  
 3 will always be important for the midwest because  
 4 truly the midwest meets the growth of South  
 5 Louisiana. But also you talk about the midwest and  
 6 the breadbasket that it is up in this area.

7 But if -- and I talked about the fisheries  
 8 production. We produced 30 percent of the lower 48  
 9 states' fisheries in South Louisiana. And then you  
 10 mix all the cultural things that we have, the Afro  
 11 Americans, the French, the Spanish, the Atlantic  
 12 Ocean, the Canary Islands. New Orleans has the  
 13 largest Honduran population outside the capital of  
 14 Honduras. We have about Lebanon -- believe it or  
 15 not, a lot of people from Lebanon are from  
 16 Louisiana because because of the French and  
 17 Catholic religion. And so with all of that, the  
 18 midwest is the nation's breadbasket. South



19 Louisiana is a seafood platter.

20 But again, looking at -- and this is a good  
21 film to talk about the oil industry. We have the  
22 nation's only offshore oil port. 1.2 million  
23 barrels a day is off-loaded right here and comes up  
24 this corridor which is where I live and work.  
25 Right along side there, there's also another

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1 pipeline, Morris Pipeline, one of the first deep  
2 offshore pipelines, there's 230,000 barrels per  
3 day, along with the other support. But right  
4 through this corridor, you have close to 18 percent  
5 of the nation's energy needs comes through  
6 pipelines through here.

7 So when you look at what the storm did and the  
8 risk and the problems that would have occurred...  
9 Also this little dot right here, this Port Fourchon  
10 and you talked about charts, talked about charting.  
11 When they did the charting out here, but brought  
12 that charting into the port and you expansioned the  
13 port to all of the customers, that was a tremendous  
14 benefit. And I just want to pass that on. That's  
15 one of the things that was done and the customers  
16 have really benefited from that.

17 But the key was, even though it was somewhere  
18 about here, until you brought it in the port, it  
19 didn't benefit the mariners to the fullest degree  
20 it could. But this port has grown tremendously  
21 since 1995. In 1995, we had 3D seismic doing oil

22 work which really increased the chance of hitting  
23 oils. We went from hitting three out of ten wells  
24 to seven out of ten wells. So all of a sudden, you  
25 could take some risks and not lose as much money.

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1 Second, the Relative Relieve Act. It costs a  
2 lot of money to start going in deep water. We're  
3 talking about over 1,000 feet. Well, congress  
4 passed the Royalty Relief Act and 3D-sized it, this  
5 little spot on the map started growing tremendously  
6 to the point where now there's over 1200  
7 18-wheelers going down this little country road to  
8 this little port. And it's a very unique port.  
9 It's hard to get security to this port because it's  
10 not the normal port. It's not goods coming back.  
11 What happens is everything that needs to go and 90  
12 percent of the ports offshore oil is to go through  
13 this place. So if you got to bring it by truck,  
14 it's off-loaded -- as Ford likes to say, it's where  
15 the rubber meets the road, right.

16 So supply all this oil, and this is the  
17 hottest new energy productions in the Gulf of New  
18 Mexico, they're going past 7,000 feet in depth in  
19 drilling. They're even looking, because of the  
20 loop platform and port, which is where the super  
21 tank is going to. As we go deeper towards the  
22 cold, they think they might not be able to pipe it  
23 in, or the pipeline might be too much.

24 So what we're looking at is actually drilling

25 and off-loading onto ships directly and have the

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1 ship come into the port and move, which is about 19  
2 miles off the coastline and bring it there. But  
3 again, it shows the importance. The loop pipeline  
4 is connected to 35 percent of all refineries in the  
5 United States.

6 When the hurricane went through here, we had  
7 tremendous flooding, but the port was knocked down  
8 for a while. When we got energy back working on  
9 the port, the price of oil, the Stock Exchange  
10 change dropped by two dollars; just knowing that  
11 energy had been connected to the loop. So although  
12 most people don't realize the importance of this  
13 small little area down here, it does play a major  
14 part.

15 Now, to understand the risks and the  
16 challenges that we have. Again, 41 percent of the  
17 United States is drained through here. That's  
18 why -- you know, when you live -- where my house  
19 is, the soil under my house comes from Indiana,  
20 Illinois, all the way from Western New York to  
21 Montana into Canada, every bit of my soil was  
22 brought here by the Mississippi River.

23 And again, I was fortunate enough to talk to  
24 one of the researchers. We had thought up until  
25 1930 that the Mississippi River was static, that 's

1 the way it had always been. There was a Dr.  
2 LeBlanc who worked with a Dr. Fisk and what they  
3 found out was the Mississippi was not static; and  
4 it had been changing over the past 5,000 years, and  
5 it had different deltas. And when it moved into  
6 that delta, this tremendous volume of material  
7 drainage of the United States actually built land  
8 where water was before. And that's how South  
9 Louisiana was created.

10 Again, we talked about the different ones,  
11 about the deltas. Again, the Lafourche Delta came  
12 about a thousand years ago when the main flow was  
13 through there. And we still had 15 percent of the  
14 flow until 1904 when, because of floods and trying  
15 to avoid flooding, we actually blocked the  
16 Mississippi River from coming into the Gulf. But  
17 it had other consequences.

18 Now, this is the system that I'm involved  
19 with. Now, you're talking about the new elevation  
20 and accurate elevations. For years, it was obvious  
21 to me back in 1996, this is all hurricane  
22 protection system built with 100-year storm. But  
23 back in the '90s, I started telling the Corps, I  
24 said, look, just eyeball it. The differential  
25 between the level of the water and the height of

1 the levee does not look right to me, all right.

2 And, you know, they did -- a bit of us did a  
3 lot of work because we didn't have any extra money.  
4 But then they doubled our property taxes, so once  
5 we had money, project engineers, they go back and  
6 checked the benchmark that most of the levee was  
7 built on, and that dropped 18 inches. So when we  
8 were realigned, basically our system, which used to  
9 be 90 percent above the designed elevation,  
10 according to the old benchmark; when we got a  
11 correct benchmark, it was 80 percent below the  
12 design elevation.

13 So before the hurricane in 2005, we started  
14 working on raising those elevations. Why didn't we  
15 want to find out before? When you know you need to  
16 build a lot, you want to just go ahead and build a  
17 lot. You climb in the door, you know you might not  
18 be as high as you need to be, and it's great to  
19 have that information. But when it costs too much,  
20 then you don't do it.

21 But with the new GPS elevation, what would  
22 have taken \$125,000 to check out the elevations on  
23 our system, with the new -- and three to four  
24 months -- with the new technology, in one day Roy  
25 Dokka and the LSU people went around and got the

1 elevation for us to within the size of a golf ball.  
2 And when you're building levees, that's more than

3        accurate enough. It's beneficial to us. Now, when  
4        I'm talking about water elevations, when I talk to  
5        the guy in the neighboring parish, we're all at the  
6        same level. It was so bad, with FEMA flood  
7        elevations, flood insurance program, you had one  
8        engineer went from one benchmark and built the  
9        house at, say, a three foot elevation; another  
10       engineer took another benchmark at another  
11       elevation, and there was much as three foot  
12       difference in these houses. Now, with this  
13       technology -- actually, when it comes to flood  
14       protection, to me, this is the biggest step in the  
15       technological improvement in knowing and being able  
16       to protect yourself from flood.

17                And in Hurricane Katrina, you know, talking  
18       about all the things that the National Weather --  
19       the National Hurricane Center, training I had the  
20       one week over there, when you learn how confident  
21       people are at predicting these storms, and that's  
22       the critical thing. If you think you know  
23       hurricanes, then you don't know. If you know you  
24       don't know, you know. And that's how unpredictable  
25       hurricanes are.

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1                Hurricane Katrina, I can remember on the  
2       Friday we were actually working and tied to one --  
3       NOAA had administered a coastal impact fund and we  
4       used some of that fund to build a structure. We  
5       were starting the structure, the dedicating of it

6 and we heard about this storm that had gone through  
7 Florida and was now in the southeast part of the  
8 Gulf on the Friday. And, you know, they were  
9 saying at that time it was going to come up here  
10 and hit the panhandle of Florida. By the Saturday  
11 morning, all of a sudden I'm getting calls from BBT  
12 in England about this terrible storm that kicked up  
13 to category five and was headed our way.

14 And if you look at these storms, it's lucky  
15 for us, again -- this is the system that I'm  
16 involved with over here -- here's the eye as it was  
17 hitting in Mississippi. But it actually was moving  
18 this direction, and just due north, 16-mile  
19 difference, and I may not be here talking to you  
20 today. That's how much difference being on the  
21 backside of this counter-clockwise flow of a  
22 hurricane. If a storm's coming your way, you want  
23 it to hit east of you.

24 If it's going to hit west of you -- where  
25 we're at -- we want it to hit South Texas,

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1 actually. Or you want it to go as far as you can  
2 get to the west of you, because of that  
3 counter-clockwise rotation. So when you look at  
4 the hurricane effects in Louisiana, really just the  
5 toe of Louisiana here, Vaca (ph) Parish, caught the  
6 worst of Hurricane Katrina. St. Bernard caught a  
7 severe blow because of the rotation after it was  
8 coming up here. Actually, New Orleans caught the

9           backside of the storm.

10           But Waveland, Mississippi, to the Alabama line  
11           truly caught the worst of that hurricane. We had a  
12           15 to 16 foot surge in St. Bernard. Those people  
13           flooded to 10 feet. And there was 64,000 people  
14           living in St. Bernard Parish, all but five homes  
15           flooded, okay.

16           New Orleans, as terrible as it was, flooded  
17           slowly and only flooded to four-and-a-half foot  
18           elevation, although the water depths were up 12 and  
19           13 because it subsided in some of those  
20           subdivisions. But the fact of the matter is,  
21           Mississippi in this direction caught it the worst.  
22           And again, you know, it's coming through and we  
23           talked about -- it's so important to understand how  
24           much you depend on those predictions.

25           Now, when a storm like Katrina is coming your

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1           way, I think right now, 24 hours before the average  
2           miss is about 68, 65 miles, that's the average  
3           miss; so when you're looking at evacuating an area,  
4           you have to think about what is the worst that can  
5           happen? You know, a sixty mile miss could be 100  
6           mile miss. And you could be from having 30 mile an  
7           hour winds to having 130 mile an hour winds. And I  
8           believe where I live, because we have a roadway  
9           that's pretty close to sea level, we have 13,000  
10           people working offshore and have to come in through  
11           the port and leave through that roadway, we



12       probably order more evacuations than anybody else.  
13       We'll order evacuations because we think the water  
14       will come over the road. We've ordered evacuations  
15       when hurricanes have actually hit Texas, as I said  
16       before, because the road was supposed to be over  
17       the top -- or was over the top. Those are some  
18       things you just have to do.

19               But the line is, you also have to understand,  
20       every time you order an evacuation and it's a  
21       mandatory, you're going to kill some people. So  
22       how's that? When we order mandatory evacuations,  
23       nursing homes leave and we always lose one or two  
24       people. You have accidents that happen, and the  
25       calls. Average calls for a family can run up

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1       between 500 to \$1,000 even if they have friends  
2       that help them out. So if you order too many  
3       evacuations, what happens is because the money's  
4       spent, they start debating whether they should  
5       leave or not, and we never want to put our people  
6       in that type of situation.

7               So every time you make those decisions, you  
8       have to look at all those other things and then you  
9       mix them into what's the chance of that family  
10       dying because of storm surge flooded that area?  
11       And that's the debate you always have to have. And  
12       these are very difficult and it's a very gray area  
13       and usually our leaders in Washington and in Baton  
14       Rouge have not had a lot of experience with the

15 actual going through the process of thinking  
16 through all of those -- all that information.

17 You know, I remember that we had a guy that  
18 had emergency preparedness in Louisiana,  
19 intelligent guy, hard-working guy, but Andrew -- a  
20 lot of people forget that Andrew hit Louisiana  
21 also, it hit as a category three storm and lucky it  
22 didn't hit the metropolitan area, but it did a lot  
23 of damage. The next year a storm started in the  
24 same place in the gulf. And he was ready to start  
25 ordering evacuations.

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1 You know, hurricanes are totally  
2 unpredictable. You need to think through before  
3 you make these type of decisions. That's where the  
4 experience needs to come through. Again, it's  
5 talking about NOAA and the National Weather  
6 Service, the Slidell Station, it's very good that I  
7 have a personal relationship with these guys at the  
8 weather station in Slidell, because I can -- they  
9 are stuck to read what comes out of Miami. And  
10 they will not say anything different than what  
11 comes out of Miami.

12 But I can kind of read between the discussions  
13 with them and, you know, because if you say things  
14 to the general public, the press might take it and  
15 run and put you in a terrible bind, okay. But if  
16 you're talking to another person who knows how to  
17 interpret the information, they will not misuse it.

18 And that's why I see governments always often  
19 pinched in on how much information they can say, so  
20 with these relationships, it's pretty good.

21 It's kind of funny, but with Rita and after  
22 Katrina, of course, all of the -- this is Rita  
23 coming through -- it's kind of funny with this. I  
24 was actually testifying in front of the senate  
25 committee, Ted Stevens' committee, with Max

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1 Mayfield, all right, talking about the accuracy of  
2 hurricane prediction, and went pretty well compared  
3 to Katrina. And it was kind of funny, while we're  
4 talking about it, Ophelia is out there in the  
5 Atlantic and they don't know where the hell it was  
6 going. And then we have to rush home because Rita  
7 is bearing down on Louisiana again. Again. Now  
8 this storm did hit to the west. My levee system  
9 only had about a five foot surge around it for  
10 Katrina.

11 But here's Rita hitting right at the Texas  
12 line, someone 150 to 200 miles away. And I had  
13 water to the top of the levee. Actually, I had  
14 water trickle into the system, but it held, nothing  
15 broke and then we had success. But there was  
16 flooding all over. In fact, our system -- if I  
17 have a picture of it here -- that's Rita coming  
18 through. And again, that's our southern part of  
19 our system in the dry.

20 Here's marsh over here and then you have a

21 community over here of 200,000 people on the other  
22 side. We call this territory B. Here's our flood  
23 gate over here, and again, we close this, it was  
24 designed only to close because of a hurricane. But  
25 because of our climate in South Louisiana -- people

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1 talk about climate, that was a good point brought  
2 up earlier. Sea level rise, that's where our  
3 climate change is where our research money is. The  
4 fact of the matter is, in Louisiana, surprise is a  
5 controlling factor. When you've look over the past  
6 100 years, we have some areas that have lost four  
7 feet in elevation, three to subsidence, and one to  
8 warmer climate, the normal warming.

9 So it's very important to understand the  
10 differentiation. And what's bad is the research  
11 money in Washington drives where you're going, and  
12 it's not where our problem is right now. Now, a  
13 climate change may supersede subsidence, but for  
14 right now, we need to be sure about the subsidence  
15 and work on that as a controlling factor.

16 CAPTAIN JACOBSEN: Why is it subsiding?

17 MR. CUROLE: Because we were built by the  
18 river. Remember, and the river flooded every four  
19 years? In fact, in high river levels, that river's  
20 chocolate. And in the past, it would break over  
21 the natural levee. And as it would slow down, it  
22 would drop it slow, so the high land in South  
23 Louisiana is right near the water basin. And it

24           tapers off to make the marshes as you get away. So  
25           all this stuff has been stacked up there.

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1           Gravity's still pulling down. And since we  
2           moved into South Louisiana -- we didn't like  
3           flooding every three or four years, you get  
4           aggravated there, you lose your crops, when one of  
5           your kid dies, you want to do something about it,  
6           so you build the levies. Well, the levies stop the  
7           replenishment, so gravity's still pulling down, so  
8           actually, it's the dewatering. And also, just  
9           lately doing this elevation study, there's also a  
10          theory that actual load of sediment on the shelf is  
11          suppressing the shelf in South Louisiana.

12          So you have some high-level subsidence, and we  
13          think that there's some new now deep-seeded  
14          subsidence. There's a lot of different -- but  
15          again, in the picture, it shows you the subpart of  
16          our system, and this is during Rita, and we were --  
17          people flooded all around us, north, south, east  
18          and west, flooded for Rita, and we did.

19          And like a friend of mine told me, he says,  
20          this macho guy, this much like going from a hero to  
21          a zero, and he wasn't kidding. And this is -- you  
22          know, I warned people, I always warned people. I  
23          said, look, our levee system will work to the  
24          height of the water that gets there. But if the  
25          water gets over, all bets are off.

1           And I give them a litany of the storms, 17  
2       foot storm surge over here, Biscayne Bay when  
3       Hurricane Andrew hit. 1961, Corpus Christi, Texas,  
4       would easily put water over our system, yet we have  
5       not flooded in the storm system. Our neighbors in  
6       Terbaol (ph) Parish have flooded three times in  
7       five years. We flooded zero. They had 10,000  
8       homes flood for Rita. We had zero homes flood.

9           But this is a challenge that we have. But  
10      that's all of the information from tide to wind,  
11      all of these issues I work with everyday to make  
12      decisions that affect -- I talked about that port,  
13      when I closed this flood gate here, I stopped  
14      traffic to the port. And that's a problem. So now  
15      we've had to spend another 25 million to install  
16      another -- a gate system here and form a lock out  
17      of this. But this is during the storm.

18           Now, this is the road it takes all of that  
19      important 18-wheeler material down to Fourchon.  
20      It's another 22 miles south of here, and that's  
21      that port that's supporting, again, 90 percent of  
22      all the offshore oil. The federal government gets  
23      5.6 billion dollars a year in royalties from that  
24      work, not counting the oil that supports the United  
25      States.

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1           And yet this is the road, like my friend likes  
2           to say, he says, you know, there's a world class  
3           operation in Fourchon for that world class drilling  
4           that's going on. And you would think we would have  
5           a world class road, and we do, a third-world class  
6           road. Again, here's the levee system here.

7           Now, the port has about 2,000 people working  
8           in it; again, 13,000 people work offshore on the  
9           rigs. We could support a community of five to  
10          10,000 people here easily. No one lives here,  
11          because not a lot of land, the flood threat. Now,  
12          we have a little number of camps and these  
13          people -- I mean, if you like the water, I mean,  
14          you can eat fresh fish everyday if you wanted to.  
15          Some of these people have these camps. I'm talking  
16          about camps, not fancy, nice brick houses in the  
17          levee system, and they will spend all their spare  
18          time down here.

19          Here's the levee system. And our levee system  
20          ends right here. That road was covered with water  
21          all the way through here to the port. To solve  
22          that problem, because this land has been sinking, I  
23          talked about that four foot loss -- some of that  
24          took place right here. We have a graveyard and I  
25          have pictures of that graveyard and cotton field in

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1           this area, in 1905, and easily four to five feet

2       above the water line is now marsh and open water.  
3       That's the type of changes that are going on. It's  
4       a moving target. That's why being able to get  
5       accurate elevations, you know, quickly with GPS  
6       it's so beneficial for our work.

7               But we are now building a 600 dollar elevated  
8       road, toll road, to ensure the road traffic from  
9       the end of the hurricane system to Port Fourchon  
10      because of deep offshore oil. And the local  
11      businesses had to come up with the two million  
12      dollars to start the studies and get ahead because  
13      the state wasn't going to come up with the money or  
14      the Feds, and so to do the environmental studies  
15      and report. That was done.

16             I'm doing a lot of talking and nobody's making  
17      any comments. I could be lying to you all. No  
18      one's questioning. Again, here we have about  
19      100,000 people living around here. We had 10,000  
20      homes flood for Rita. And this all works together.  
21      We don't have the -- quite the land base, so  
22      there's a lot of construction going on here, and  
23      they go through here and down to Port Fourchon.  
24      And actually, all of the Highway 90 to Lafayette,  
25      Louisiana, there's a lot of work because this is a

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1       very unique place, this port here.

2               And again, this re-roading goes -- when I was  
3       a kid, this is all solid marsh and now it's about  
4       60 percent open water. And I will tell you about



5 fisherman that go from weekend to weekend and will  
6 tell me about marsh that, again, because it's a  
7 science issue. Another portion of Louisiana,  
8 Chalmette is actually growing. And, in fact, NOAA  
9 did some charts at the bottom and the 12 foot  
10 contour has extended some 12 kilometers. That's  
11 because we're depositing that soil now in shallow  
12 water.

13 Right now, the Mississippi River is depositing  
14 that water in a thousand feet where you're not  
15 going to be able to hit land, so that's some of the  
16 changes that we need to do. And we have the tools  
17 to make new land and do some good things, but it  
18 causes changes and we're going to have to determine  
19 those changes. This is the port. There's some  
20 unique facilities here. That's why when we think  
21 this gets destroyed, this is going to be a strain.

22 Just this right here, this was invented by a  
23 group of companies in our area, and it's a Wal-Mart  
24 idea. Some of these boats rent for \$45,000 a day.  
25 And when you come into port, it would take you

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1 three days to get your water at one dock and then  
2 you have to move to another dock to get loaded up,  
3 another dock to get the fuel. So if we build these  
4 areas that they back in undercover, five inch fuel  
5 lines, water lines are built into each one of  
6 these, there's -- there are cranes overhead and the  
7 trucks pull in the back. And so the trucks come in

8 the back, they load it up, they can turn around  
9 those boats now in 12 hours where it took three  
10 days before. So if you ran into \$25,000 a day, you  
11 can build a bit of these unique things. This is  
12 the unique installation that you have here, and  
13 it's a very unique port.

14 Again, when you go offshore, you got to bring  
15 everything there by boat, but you also got to bring  
16 it back. You can't throw it. You got to bring it  
17 back and it goes up that road. The shoreline  
18 roads, we have like everybody else. And again, if  
19 you look at the rigs, you never see -- we had more  
20 structures off of Louisiana than anywhere's else in  
21 the world. And we don't have reefs.

22 You know, a statistic, we catch more red  
23 snapper off Louisiana than they do in Florida, and  
24 we don't have reefs, that's because of the  
25 artificial reefs that these rigs have done. And I

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1 just pulled about a 300-pound fish under one of  
2 these rigs. It's a good diving place, also. I  
3 will go real quick. Again, real quick deep  
4 offshore oil is critical. Again the coastline, I  
5 talked about the issues with the waves in  
6 Mississippi and the structure took place over here.

7 And, you know, with all the information,  
8 again, it's better to be lucky than good. This is  
9 the sign on our warehouse. And Katrina hit and it  
10 took the V-E-E off, so we were were kind of -- not

11 knowing it -- South Lafourche Le District.  
 12 And again, the people realize how good the  
 13 fishing is, but you can go catch yellow fin tuna  
 14 and come in in the morning, catch crabs and cash  
 15 speckled trout and red fish. And then by the  
 16 time -- before you go eat supper at night, you can  
 17 go catch your bass. Not too many places can do  
 18 that, but this is some of the differences in  
 19 Louisiana. Thank you all.

20 (Applause.)

21 CHAIRMAN SKINNER: Mr. Curole, that was a  
 22 great presentation. It combined a lot of different  
 23 things. I think makes the rest of us reevaluate  
 24 the magnitude of some of the problems that we deal  
 25 with, so thank you very much. Questions or

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1 comments?

2 CAPTAIN HICKMAN: Is that a Bull Red?

3 MR. CUROLE: Yes, it is. It's a Bull Red's  
 4 the females, actually.

5 MR. ZILKOSKI: I got one -- this was great,  
 6 Windell, this was a great presentation and it shows  
 7 the importance of heights and the panel's going to  
 8 hear a little discussion later on by Matt and Gary  
 9 about the height modernization program.

10 But you talked about Roy Dokka and his group  
 11 in LSU, which is part of our height modernization,  
 12 and he does some great work. And I think the  
 13 observation I want to make is there's a lot of

14 things that NOAA's doing that the public's not  
15 hearing about. And, Wes, you've been saying this a  
16 lot, that we got to get out there and say a little  
17 bit more.

18 Here's an example of what Roy Dokka is doing  
19 and stuff that it's through NOAA and somehow we got  
20 to get recognition that without our resources you  
21 couldn't have done those heights, you couldn't have  
22 done -- and clearly, nothing anything from Roy,  
23 because Roy and his group are doing a great job,  
24 but it was through NOAA and their leadership in  
25 building the spatial reference center tht allowed

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1 that to occur, and so we're not enough -- we're  
2 just missing the boat somehow, we just got to  
3 figure out how to handle that.

4 MR. CUROLE: Press conference. I don't think  
5 people understand on the ground the benefit of what  
6 this is. As you know: Elevation is a salvation  
7 from inundation.

8 CHAIRMAN SKINNER: Any other questions or  
9 comments? Thanks, that was great. We're now  
10 moving into the public comment period. And I don't  
11 know if we have a list of all?

12 MS. HESS: There was someone that said they  
13 wanted to make a public comment. I'm not sure if  
14 they're here.

15 CHAIRMAN SKINNER: Why don't we just open it?  
16 Okay.

17 MS. HESS: Do you want to go up front? Just  
18 introduce yourself and who you're with, please.  
19 Thank you.

20 JOSEPH SCOLARI: Hello. I'm Joe Scolari from  
21 the Army Corps of Engineers. I just want to thank  
22 you guys for inviting me to your panel.

23 I've been talking with Steve Barnum about the  
24 Corps has its community of practice and we're  
25 looking -- like it's a technical community of

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1 practice, and the community itself is looking to  
2 partner with NOAA and work together from the ground  
3 up.

4 I know that people up in headquarters and all  
5 are trying to get partnering agreements together,  
6 but it's the technical folks down at the bottom  
7 that have to make it happen. And I just wanted to  
8 let you know that the technical folks are my peers  
9 and my community of practice are very willing and  
10 very enthusiastic about partnering with NOAA and  
11 it's the things that these panels come up with to  
12 make interaction between the agencies more  
13 successful. It's a very short comment.

14 And I did prepare a paper which is sitting  
15 back on the back about different things where we  
16 use NOAA information and how a lot of our revisions  
17 to the engineering manuals and all are very similar  
18 to the NOAA guidelines in performing surveys, so  
19 the interaction between the agencies should be

20 fairly streamlined once the political end of it  
21 gets taken care of. All right.

22 CHAIRMAN SKINNER: Thanks very much. Any  
23 questions or comments? Thanks very much for  
24 coming. Any other public comments at this point?

25 (No responses.) (Continued in Volume II.)

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