U.S. DEPARTMENT OF COMMERCE
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NATIONAL OCEANIC AND ATMOSPHERIC

ADMINISTRATION (NOAA)

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HYDROGRAPHIC SERVICES REVIEW PANEL (HSRP)

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MEETING
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WEDNESDAY
MAY 4, 2011
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The Hydrographic Services Review Panel met in the Kona Moku Ballroom at the Waikiki Beach Marriott Resort and Spa, 2552

Kalakaua Avenue, Honolulu, Hawaii, at 8:30 a.m., Edmund Welch, Chair, presiding.

HSRP MEMBERS PRESENT:
EDMUND B. WELCH, Chair
MATTHEW WELLSLAGER, Vice Chair

LAWSON W. BRIGHAM, Ph.D.
JEFFERY J. CAROTHERS
MICHELE DIONNE, Ph.D.
CAPT. SHERRI HICKMAN
CAPT. THOMAS A. JACOBSEN
DAVID A. JAY, Ph.D.
GARY JEFFRESS, Ph.D.

JOYCE E. MILLER
SCOTT R. PERKINS
SUSAN SHINGLEDECKER

PACIFIC NAVIGATION SERVICES STAKEHOLDER PANEL:
CAPT. STEVE BAKER, Hawaii Pilots Association
ROBIN BOND, Hawaiian Ocean Safety Team
CAPT. BOB LAMB, Matson Navigation Company
LT. DOUGLAS MILLER, U.S. Couast Guard, 14th Coast Guard District Waterways Management Branch
BRAD RIMELL, Sause Brothers Ocean Towing Company
ALSO PRESENT:

RICHARD BALSER, U.S. Navy COMPACFLT
JULIANA BLACKWELL, NOAA/National Geodetic Survey Director
PAUL BRADLEY, NOAA/NOS
ARTHUR BUTO, DLNR
EDWARD CARLSON, NOAA/NGS
VIRGINIA DENTLER, NOAA/HSRP
BOB DUPUIS, Boat Surveys Hawaii
RICHARD EDWING, NOAA/CO-OPS Director
CAPT. GERD GLANG, NOAA/NOS
LCDR MARCELLA GRANQUIST, Waterways Management Division, Sector Honolulu, U.S. Coast Guard
LAURA HAMILTON, NOAA
TIFFANY HOUSE, NOAA/HSRP Staff

D. JOHNSON
KRISTINA KEKUEWA, NOAA PSC
DAVID M. KENNEDY, Asst. Administrator, NOS
TORE LERAAND, Leraand Engineering Inc.
CAPT. JOHN E. LOWELL, JR., NOAA/OCS Director
JAY MAGERS, U.S. Navy
JOHN MARRA, Ph.D., NOAA NCDC

MICHAEL MacDONALD, Hawaiian Tug & Barge/Young Brothers
DANIEL G. MORRIS, U.S. Navy COMPACFLT
JESSICA PODOSKI, U.S. Army Corps of Engineers
DAN POLHEMUS, U.S. Fish and Wildlife Service
KEVIN RICHARD
LT. KYLE RYAN, NOAA/OCS

ALSO PRESENT (Cont'd):

BRIAN SCHATZ, Lt. Governor, State of Hawai'i

TOM SMITH, U.S. Army Corps of Engineers

ADAM STEIN, NOAA PSC/Pacific Risk Management 'Ohana (PriMO)

DAVID SWATLAND, NOAA

BILL THOMAS, NOAA

KATHY WATSON, NOAA/HSRP Staff

T-A-B-L-E O-F C-O-N-T-E-N-T-S

T-A-B-L-E O-F C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

8:47 a.m.

CHAIR WELCH: Ladies and gentlemen. Good morning. Let's convene the Hydrographic Services Review Panel of the National Oceanic & Atmospheric Administration.

I'm Ed Welch the Panel Chairman. This is an advisory committee created by statute of folks in the private sector from all over the country. And our job is to advise NOAA and NOAA's leadership on a number of navigation and contract services programs.

This is the first official meeting that we had since the appointment of a new cadre of members. Some of us have been on the panel for several terms, several years. A number of the rest of us are attending our first official meeting.

I'm going to turn it over to our Designated Federal Official, Captain Lowell for a few remarks and then we're going to go right to the Lieutenant Governor.

John?

CAPT. LOWELL: Thank you, Ed. I know most everybody here. Some guests I haven't met. I tried to meet everybody.

Again, I'm Captain John Lowell. I'm Director of the Office of Coast Survey.

We have a couple of administrative things to go over and then we'll move right into the meeting.

First off, these are the emergency exits behind us. Everybody's recommended to use the stairs to get out of here, just move down those stairs.

The restrooms are located right across from the stairs.

The mics are a little bit different for this meeting. They're always on. Our sound engineer will be adjusting the controls as we speak. So if there's a slight delay, it's just that he hasn't done it yet. You're not supposed to push the top on this one.

But to facilitate him, you know do try to lean toward the mic so that he picks up. We do have a court reporter at the table, so we're recording everything and taking notes. As always, speak slowly and clearly.

And I haven't seen this problem. At this meeting we're going to try not to talk over each, as been known to happen.

As Ed said, this is the first Pacific Regional meeting for the Hydrographic Services Review Panel. As Ed said, it's an independent panel. We have individuals with diverse background and interests in those hydrographic services.

We welcome you all here. There are ten new members on the Panel, of which this is their first meeting. So we'll try to walk everybody through the process here.

We also have a couple of special sessions dealing with where is this committee want to go over the next three to four years. We'll talk a little bit about that today and

then after we've gone through the meeting and all new members will understand how we run the meetings, then at the very end of the last day we'll give everybody an opportunity to kind of set the stage for the next several meetings. Where do you want to go and how it is we can help you gather the information to meet that objective that you've set for yourselves.

We also will be swearing two new members in that we didn't get to a few months ago in Silver Spring. We'll do that right after these remarks.

And a quick reminder to the guests in the back if you have not signed in, we have a sign in sheet that's required by FACA law. So, please sign in.

So, with that said, I think we can move to the swearing in. David Kennedy, you want to just --

MR. KENNEDY: That would be great. But let's see, who are we swearing in?

CAPT. LOWELL: Susan and David.

MR. KENNEDY: So just read it and they just follow along with me?

MS. WATSON: And raise your right hand.

CAPT. LOWELL: Raise your right hand.

MR. KENNEDY: This is unique for me. I've had a bunch of new experiences lately. And I've been sworn out a lot. So, all these new experiences.

All right. So you two, if you'd raise your right hand and then we'll go through this oath.

And it's I, you two -- do you have it in front of you to read it. Okay. Let's read it together.

Do solemnly swear or affirm that I will support and defend the Constitution of the United States against all enemies, foreign and domestic, that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental

reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office on which I am about to enter. so help me God.

Okay. That means you're officially sworn in. Congratulations.

So, I turn it back to you.

CHAIR WELCH: Thank you, David.

And congratulations to our new members. Welcome to all of our members, again.

We are delighted to have as our first speaker\, the Honorable Brian Schatz is Lieutenant Governor of Hawaii.

Mr. Lieutenant Governor, we very much appreciate you coming. I've been on this Panel about four years and we've been meeting in various states around the country. And while we've had a number of state cabinet secretaries and other dignitaries from the state governments, I believe you're the highest ranking state official that we have had make a presentation to the Panel, at least

during my tenure. So we very much appreciate it.

As we indicated to you, those of us here come from a diverse group of occupations and backgrounds. Some of us are scientists, a couple of us are politicos. We have some maritime pilots. Some folks with various types of maritime and geodetic types of backgrounds. And we've been attracted to come to Hawaii because of its unique situation. It's an island state. It's positioned in a strategic part of the Pacific Ocean. And a number of the NOAA programs that we have some responsibility to comment on are of importance to Hawaii.

And I understand that there are several hundred NOAA employees that actually live and work in the State of Hawaii.

So with that, we would welcome any kind of remarks that you might care to give us. And if time permits, perhaps some of us can react to your remarks or pose a question

to you.

So the floor is yours. Thank you.

LT. GOVERNOR SCHATZ: Well, thank you, Chair Ed Welch.

Thank you Assistant Administrator Kennedy and Captain John Lowell and to all the members of this Panel. Thank you. Aloha e komo mai, welcome to Hawaii.

I see your schedule, your agenda, which is robust and that's appropriate. But I hope you can complete your work in time for some enjoyment of the natural environment here, and maybe even some enjoyment of the retail environment here, which is equally important to us.

The work you will undertake in the next couple of days is vitally important for Hawaii. And on behalf of Governor Abercrombie I'd like to thank you for your critical work in ensuring marine transportation.

I'd also like to thank NOAA for selecting Hawaii for this location and giving

stakeholders an opportunity to participate. We're grateful to NOAA for the far-reaching services provided, including information, tsunami early warning and monitoring coral reef and fisheries management, seafood inspections, the management of the Hawaiian Islands' humpback whale sanctuary and the Papahanaumokuakea Marine Monument.

NOAA is a valued partner in Hawaii. It's critically important in our island state. And as you had mentioned, it's a major employer in the State of Hawaii. Several hundred employees and growing as a result of our needs, as a result of our unique natural environment and partly as a result of Senator Inouye's leadership.

You may not know that I was at the University of Hawaii's Sea Grant Extension Service, and that's how I got my start in public service. I was a program assistant. And I started a not for profit called Youth For Environmental Service designed to get kids

involved in community service for the environment. In this way it's a small example of the significant and important role that NOAA plays in ensuring economic vitality and environmental protection through science.

When I was asked to address you, of course like most folks, I didn't fully understand how nautical charts, shoreline surveys and water level measurements and geodetic and geospatial measurements were developed. Of course, I understood the importance of accurate charts, information on tides, water levels and good data for positioning services and so on. But now I more fully understand and appreciate how the network of NOAA professionals, state and local government agencies, scientists, businesses and private citizens work together to ensure that the data that we collect is relevant to support to support the United States marine transportation system and the prosperity of our country.

And we were chatting a little bit earlier this morning, this is exactly the kind of work that in my opinion is under siege with respect to budgets. Because as even at the state legislature right now, and I've been a legislator, and you've been a staff director for a congressman and I think the challenge for this Panel and the services that are provided is that you may end up in a conference committee and they're trying to find some dollar amount of savings. And they look across the table at each other and they say "What's that? I don't know," and it gets crossed out.

And so the challenge today and for the next several days is to do your work, but also to understand that in an economic and political environment in which we're working that it's really critical to do more reaching out then ever about why what you're doing is so important. How it creates a stronger economy. How it creates efficiency. How it

creates safety. How it saves people time. How it saves companies time and how it save companies fuel. How it basically is one of the most basic parts of America's economic infrastructure. And we've got to make that case loud and clear, because this is exactly the kind of thing that is going to sound abstract and arcane to a policymaker and will be threatened.

And I don't mean that as an ideological statement. I think it's just a factual statement that this is the kind of thing people don't understand. And I'll give you another example at the state level.

I remember being in a committee when they were trying to find $750,000 of savings at the state legislature. And two legislators looked at each other and said: "What's vector control?" And, "I don't know, I don't know." Cross.

So then I kind of came in and said: "You know what vector control is,

right? Dengue fever eradication, rats in restaurants. Vector control is pretty basic to what government does." And so we were able to reinsert it in the budget. But a lot of policy making, especially on the budget level, especially in a rush which is almost always how it's done, gets done with very little information. And you're not going to be able to get in the room at the last minute, maybe you will but the rest of us are not going to be able to get in the room at the last minute. And so those of you in the private sector, those of you who are pilots, those of you who understand the economics of maritime transportation and other aspects of how this Panel services not just the maritime industry, but the broader public that's the case we have to make to our friends in Washington and to our local partners.

So, I want to thank you for the work you do, because I really do think it's totally critical. And that's actually the

reason you say well, I'm one of the higher ranking public officials to come to this meeting, I think it's critical that we do have public leaders who understand applied science matters, that infrastructure matters and that just because something doesn't sound good in a campaign commercial doesn't mean it's not important. And that's why I'm here, is to support the work you're doing and to say thank you for the work you're doing, and to ask you to speed an extra couple of hundred bucks each in the stores.

Thank you very much. I'd be happy to answer any questions, although I lack the expertise to answer many of them.

CHAIR WELCH: Well, thank you very much, Mr. Lieutenant Governor.

And let me open the panel oven and see if any comments or questions from members of the Panel. If you do, would you please not only state who you are, but what your affiliation is or where you're from.

Do we have any comments or questions? Well, let me break the ice, Mr. Lieutenant Governor.

I was here in Hawaii about two months ago, the Big Island, for a family wedding. My sister-in-law, who is a Hawaiian resident was getting married. And we had a nice wedding at a facility a little bit south of Kalua Kona right on the waterfront. And two weeks later the facility was absolutely devastated by the tsunami. And if we had waited two more weeks, we wouldn't have had that wedding there.

But I wonder if you might have any comments as to, you know obviously most people didn't even know that Hawaii got hit by the tsunami. Do you have some comments or observations about the economic impacts of that event here and to what extent you had warnings and plans?

LT. GOVERNOR SCHATZ: Well, the Pacific Tsunami Warning Center got it exactly

right. From the time of the tsunami's arrival to the impact, although they were vague enough to keep the public alert and aware. From the Emergency Operating Center we were in constant contact with them. We were working with FEMA and the Warning Center and everything really worked well. The only thing that didn't work perfectly was our teleconferencing, our virtual teleconferencing system. And I think that was human error. We just didn't know where to place microphones, sort of like your push to talk system. But for the most part we felt very good about being able to-- especially with a new Governor and three new Mayors. We felt very good about being able to stand up a system where we were in constant contact and we were monitoring the impact. So on that level I thought things went well.

On the level of impact to the State of Hawaii, we had $20 to $30 million worth of infrastructure damage, $8 million of which was to public facilities. And we'll be

getting FEMA assistance for that.

There were some significant damage at harbors and a bunch of private property damage. FEMA's not going to be helping with that because most of the private properties were either insured or second homes, which FEMA's disinclined to assist with for understandable reasons.

The main economic impact has been the understandable downturn in Japanese arrivals. We depend on that as part of our tourism mix, but it is only 18 percent of our total arrivals. So we had a, call it a 25 percent drop off of 18 percent. So if you do the math, it's a 2 or 3 percent net drop for a three month period and it's starting to pick right back up.

So, you know you're probably looking at a total loss in gross state product of less than a percentage point, but not inconsiderable. I mean, that's real money and economic activity.

We feel very confident that the Japanese market will recover. We feel confident that our relationship with Japan is stronger then ever. And so Hawaii's economy, actually, was on a nice trajectory until a couple of months ago. We have one of the lower unemployment rates in the country as a state. And we're relatively, knock on wood, stable. So we're feeling positive, although that doesn't solve our short term, budget shortfall, which is about $1.3 billion. So we just are finalizing work on the legislative budget tomorrow. And my view is the private sector will recover by the end of this year, and the public sector will recover about a year after that.

CHAIR WELCH: Are you anticipating a drop in arrivals of people that won't go over to the birth certificate?

Joyce?

MEMBER MILLER: Yes, I have a follow-up question. I'm a resident of --

CHAIR WELCH: On the birth certificate?

MEMBER MILLER: No.

CHAIR WELCH: Joyce, if you can identify yourself?

MEMBER MILLER: Yes. I'm Joyce Miller. I work for the Joint Institute for Marine and Atmospheric Research, RCUH and I'm a Panel member, recently joined.

And what are the state plans, I mean the Keehi Harbor in particular was severely impacted? And I have to say having been a boater here for many years, it never was in the best condition anyway.

LT. GOVERNOR SCHATZ: Right.

MEMBER MILLER: So what are the state plans for renovation of that harbor? Are we getting FEMA money? What's the --

LT. GOVERNOR SCHATZ: We are. We are. So the FEMA money reimburses for public infrastructure damage. And the estimate was $1.4 million in Keehi. And so what that'll do

is get us back to where we were, which as you know was unacceptable.

MEMBER MILLER: Right.

LT. GOVERNOR SCHATZ: So I think, our new Department of Land and Natural Resources Director is a former harbor master. And so I think he understands better than, perhaps, any other DLNR chief the need for investment in harbors.

And the other thing we're doing is trying to have our Department of Transportation and Department of Land work a little bit better together on harbor infrastructure. Because our Transportation Department is fat and our DLNR is starving. And so I think, you know trying to make sure that there's partnership there will free up some resources for that infrastructure.

CHAIR WELCH: Yes, David?

MEMBER JAY: Yes. David Jay, Portland State University.

As an academic scientist, this is

more sort of a plug than a question. You have here at the University of Hawaii a very important called the University of Hawaii Sea Level Center. I was curious, is there direct state support for that activity? It's very important for people who study sea level and tides around the world.

LT. GOVERNOR SCHATZ: The way that our university is funded is basically by block appropriations. Because the University has constitutional autonomy, the Legislature basically provides them a fixed amount of money and then the President and the Chancellors determine which programs get funded. But as a general proposition, you know David and I were talking this morning about the importance of those kinds of data and that Hawaii continues to be a leader in some areas and a potential leader in others. And so one of the things we're going to be working on is separating out the question of global climate change and getting off of oil no matter what

happens. Even if we get off oil tomorrow morning, we're going to have deal with some sea level rise as a coastal state. And so what we're going to be doing is working with our University partners to develop an infrastructure plan for both private and public property so that we can actually deal with this.

And I think because we're a coastal state we can't afford to wait.

CHAIR WELCH: Okay. Gary Jeffress?

MEMBER JEFFRESS: Gary Jeffress, Texas A&M University, Corpus Christi.

I think you just answered my question I was going to ask. I was going to ask about long-term sea level rise and also storm surges from hurricanes, how that impacts low-lying coastal areas and Hawaii's policy in the future.

LT. GOVERNOR SCHATZ: Yes. You know, I think I did answer that, but I'll say

more broadly we may be ahead of other states and counties and municipalities, but that doesn't matter, does it? The question is whether we're going to have a plan in time to finance and implement so if it's hardening, if it's managing -- I mean, I don't know technically what the plan ought to be, but I do know that I don't want to be developing a plan as the problem is fully upon us.

CHAIR WELCH: Other comments or questions? Michele?

MEMBER DIONNE: Michele Dionne, Wells National Estuarine Research Reserve in Wells, Maine.

Just a follow-up, and that is maybe you could comment on how the citizens of Hawaii embrace this problem of sea level rise and whether they're thinking about it, not thinking about, aware of it kind of.

LT. GOVERNOR SCHATZ: I think the answer is that Hawaii as a general proposition has a high level of environmental awareness.

But I think if you ask the person on the street about sea level rise, you'd get a blank stare, even from those who call themselves environmentalists. There's a concern about land development and the sort of right in front of you challenges with respect to balancing the natural resources need versus the need for housing and hotel and resort development; all those questions are sort of more right in front of us.

I don't think our community at large is educated about or concerned about this problem. And, frankly, one of the other challenges is that with an economy that is so dependent on tourism, we want to be preparing for this but we don't want to be sending out the wrong signals internationally. And here's been so much reticence about even -- I mean I actually agree with that. I don't think we should be making international news with respect to this question. But that doesn't prevent us from doing the work we need to do.

It just means we shouldn't be -- you know, if someone asks us about it, we can be truthful but there's no need for a news release.

So, I think what we've done in the interest of continuing Hawaii's great brand from a hospitality standpoint is sort of shutdown all activity on this question. And I think there's a happy medium that we've got to get to.

Well, thank you very much. I appreciate your work. I'm sorry I have to go back to the capital. But I really appreciate you being here. Thanks very much.

CHAIR WELCH: Thank you, Mr. Lieutenant Governor.

(Applause.)

CHAIR WELCH: Captain Lowell would like to give you a short presentation here.

CAPT. LOWELL: I just have a little gift coming down. Thank you very much.

I guess the Chair just left.

MS. WATSON: Captain, excuse me.

I think we forgot one thing on the agenda' to have all the Panel members give a brief who they are.

CAPT. LOWELL: I actually have that right after the--

MS. WATSON: Okay. That's fine. Okay.

CAPT. LOWELL: Actually, as a final note to both Susan and Dave, there is a little paperwork that we have to do, but at the next break, I'll pull you guys aside and we'll finish that.

So that said, Dave Kennedy.

MR. KENNEDY: Okay. Sorry for wandering off. I thought we were going to do some other business.

So I had the opportunity to talk with the Lieutenant Governor this morning, and very impressed by his understanding of what's going on here and his willingness to support.

When I first sat down with him, he kind of asked some questions. I said huh, I

don't think he's going to get this. He had read the material. But, boy, as soon as we started to talk and talk about particular issues, it just clicked and he started giving me examples of how important some of the nav services issues are to Hawaii and how important they are to the economy. So, really impressed to have the opportunity to sit down with him, and really I think an advocate for us as we move forward.

So I have a slide deck here somewhere; do I not? No? Okay. Interesting. A lot of people looking at each other here. I don't know.

So, what I'm going to talk about this morning a little bit is kind of the atmosphere that we have as an environment to work in in NOAA nationally, the challenges. How we think you guys fit into all of that, and we do think you fit. And we're hoping that we can entice you to maybe be engaged between meetings in a little more active way

then you have in the past. The Governor got a good pitch in there for that. He and I chatting this morning he was kind of asking okay, so what is this Committee and what does it do. And when I just mentioned, and that's kind of what I liked about him so much. He's such a quick study. When I just mentioned that, boy, this is a group that we think that there's other opportunity, he immediately got that and said, gosh, given the environment we're in, yes, yes, yes. And I'd like to talk about that, too.

At any rate, so my slides, should we get them up, would kind of start with the environment that we're working in. And as you all are extremely aware, budget, budget, budget. And so we have been struggling for months and months and months under this continuing resolution. We finally now have a stable budget for '11. And there were a number of draconian scenarios about what our budget might end up being for '11. And I'm

very happy to say that most of those did not play out.

So the budget that we have to work with, which is not final so I really can't talk about it in detail, but at least the overall number and where we think we're going to go if we get approval is not nearly as bad as we thought it might be. So it is somewhat stable. There aren't going to be any major increases, but I think the best good news of all of that is that we're not going to have to cut big chunks out of programs. We're going to be able to continue to do pretty much what our primary basic missions are and will allow us, at least this year, to be somewhat stable, and certainly not take dramatic cuts.

Another part of that issue, though, is okay what happens next year? Conventional wisdom is that we had presidential budget for '12, but that budget we don't think probably will stand. It was a pretty favorable budget for NOS, but we don't

think that's where we'll start. We think that ultimately the kind of budget that we'll have probably will begin as a baseline with what we ended up getting here this year, which is less than certainly we had intended for '11 and certainly less then what was projected in the President's budget for '12.

I think, let's face it: economic budget woes will continue for the next few years. So two things:

(1) What we're striving to do is make sure that what the National Ocean Service does, in particular the Navigation Services, we really try very hard to project as how important they are to the economy, how important they are to moving the nation forward in jobs and what have you. We're doing a fair amount of kind of rethinking some of the messages that we are passing on to Congress, in particular about Nav Services with the hope that we can at least remain neutral, stable. It'd be great to have a

little increase, whether that will happen or not, I don't know. But times are going to be tough. And so right now, the signals are that we're okay. We're hoping to keep it going that way.

Now that having been said, I think there's some major drivers and some of those that directly affect you that are very favorable in particular to National Ocean Service but to the Nav Services, that I think will help us maintain our position and maybe not have to continue to think about taking significant cuts.

And so they would fall into the categories of the new National Ocean Policy, which I'm sure most of you are aware of. That Ocean Policy has nine primary objectives. Several of those objectives which are currently having strategic plans developed are very specific to the Nav Services side of the house. So, three that I can think that were on my slides, I think, are --

MS. DENTLER: If you want to read through them, then we can do that.

MR. KENNEDY: What's that?

MS. DENTLER: If you want to read through like this. I've got to troubleshoot, but you can do the presentation.

MR. KENNEDY: Okay. Well, I mean, we can kind of see that.

So, can you go to the next one? Let's see where we are in my talk. I think I've kind of covered that, the challenge of appropriations issue and the fact that '11, we have something now to work with, not finalized, but to work with. And then '12, we don't where we're going to go. But I think the big battle to win is not having the discussion continue along the lines of let's cut a whole much more, but let's stabilize where we are.

So, next. Let's see where I am here. Yes. Gosh, I was kind of following the format, too.

So in terms of opportunities, I had started with the Ocean Policy, but just to back up for a second, NOAA has over the last couple of years developed a new strategic plan. And in developing that plan it kind of changed from what we used to do, and what its done is created a particular goal. It's called a coastal goal within NOAA which is the basis for budget formulation as we move forward into the out years.

The National Ocean Service has not had its own goal for some period of time. We've been kind of blended into a theme called ecosystem. Maybe not fair to say we have our own goal, because we did have our nav goal. But we've not had kind of a major goal within NOS that was really our own to manage and that ultimately, when you got done with formulating the budget, the Assistant Administrator, me, had kind of the final say in what went forward to NOAA. We now have that in this coastal goal.

You see the objectives on the left that really, then, are the basis for how we formulate to propose dollars to NOAA.

And two things here: (1) There's some key objectives there listed on the left which we think match up pretty nicely with what Ocean Service and Nav Services are involved with. But the other nice thing as we develop this is that, as I mentioned before, that we have this Ocean Policy which has these nine objectives, priority objectives. And when you look at our objectives within this coastal goal and then look at the Ocean Policy priorities, they really match up very, very nicely. And I'm proud to say, that's on purpose. It wasn't just a fluke.

And so what we're really hoping to do is take advantage of the fact that things that are pretty relevant within the Ocean Service that we consider objectives, we can match up very nicely with what the Ocean Policy is talking about.

So Marine Spatial Planning, as I mentioned, you've got the ocean coastal and Great Lakes observations mapping and infrastructure. Extremely relevant to us, and in particular this group today.

And then changing conditions in the Arctic. And I'm going to talk about each of these just a little bit.

So next, please.

So, you've probably all heard about Coastal Marine Spatial Planning as an objective. That's a good news/bad news story.

Good news in that an awful lot of what the Ocean Service does really kind of fits within this major objective on a variety of fronts. And, in fact, NOAA, in being involved in the Ocean Policy and Dr. Lubchenco being at the table as part of the Ocean Council, took on the responsibility of Coastal Marine Spatial Planning to be kind of driven, at least in part, within NOAA. And where Coastal Marine Spatial Planning resides in

NOAA is in the National Ocean Service, which is the parent organization for the groups that are here today.

So, we're a primary player there. And in essence, what spatial planning is all about is, you've got an ocean that is being more and more and more looked at for alternative uses, for new uses, for more recreation. It's a place that is extremely vulnerable and a tremendous interest in continued development of the ocean.

The thought was, as we continue to develop the ocean, we need to get everybody around a table that has an interest, a mandate or a particular aspect of the ocean that they have an expertise in to sit down and then, with the appropriate data, to try and make intelligent decisions about where we go in the oceans with development.

One of the major examples that we're seeing around the country that's kind of a driver for all of this is alternative

energy. And you probably heard about in particular in the Northeast but not restricted there, the windmill farms for power generation. But you've also got wave, current, a variety of other types of issues.

So when you think about a whole new industry and when you think about alternative energy as a major thrust in this country, and then putting huge wind farms throughout the ocean and those have to be mapped up against where ships go, where fishing takes place, where petroleum exploration occurs; how is it that you're going to have all the appropriate data and the right people at the table to make decisions about how to do that kind of siting? Just as one example.

So I think it's an admirable undertaking. Unfortunately, there's a fair amount of controversy around it. We can talk about that later, if you'd like. But in essence there's just a fairly large body of

organizations, individuals, entities, Congress that think this is just one more federal bureaucratic red tape zoning restriction type of activity and why would we want to do this. And so there's a fair amount of resistance and a steep learning curve in terms of what we're trying to do and why it makes sense to do it, but also a very organized group against.

So, next slide.

Under Arctic, again kind of an objective at the Ocean Council.

NOAA recently has released its own Arctic Strategy. That was done in May. You see our goals on the left there: with a purpose. It may be a little bit hard to see.

But everything from better predictions of sea ice. And, of course, one of the major issues in the Arctic, as I'm sure you're pretty much aware, is that we have a changing set of environmental conditions that, in and of themselves, are a challenge and an issue to and understand and deal with, but are

also an opportunity in that, as sea ice leaves the Arctic, that's the opportunity -- in that it leaves -- for shipping, for mineral petroleum exploration, for a variety of other reasons. Without the sea ice, there's all sorts of new thoughts as to how and what should be done in the Arctic. And tremendous challenges not only in understanding an area that is not well understood environmentally and scientifically, but also as it relates to if in fact we're going to commercially develop, if we're going to ship, if we're going to do the other types of commercial thinking, you've got to have the infrastructure which is where the Nav Services side of the house comes in. And it really doesn't exist there, or it doesn't exist much.

So a key backbone to a lot of the thinking is how do we get the appropriate services in place? The charts, the tide and water levels, the geodetic positioning such that we're in a position then to safely and

appropriately begin to move our way that way to look at what the Arctic has to provide without ice. So a major issue.

Next.

We, the Nav Services part of the Ocean Service, have been looking at the Arctic, have understood for a long time how important some of the things that we bring to the table are. And so you see in the center there an actual kind of plan that we have in place for the Arctic. And just some of examples of some of the thinking that's gone into upgrading the shoreline data, where our tide and water level gaps are and what we need to really begin to flesh out.

We are looking at doing more surveying. The lower left is the survey plan with some surveys planned for, I think, it's Kotzebue Sound and, Lowell, you can help me here. John, where else?

CAPT. LOWELL: This year it's Kotzebue and, I believe, the approaches to the

Kotzebue.

MR. KENNEDY: Yes. Okay.

CAPT. LOWELL: I think I mispronounced that.

MR. KENNEDY: And then there is a major effort underway in Alaska on GRAV-D. And a fair amount of work already been done.

And, Juliana, I don't know if you're going to talk about that later, but more work certainly planned for the near future.

So we're trying to step up and begin to provide some of that very, very important data. And I will say it: we don't have enough money to do all that. So this is one of those areas where we feel strategically we're so important, yet we don't have enough to do what we need to do. And so we've very aggressively trying to look forward at least having some budget numbers in place, should anybody ask, that we could show in terms of what kind of investment we think we need to

bring the Arctic up to speed.

Next.

And just this is another one of those major priority objectives from the Ocean Policy, but you look at what it's talking about doing. Again, centerline to the kinds of things that we do and that we're only trying to do. So when you think about integrated ocean mapping as we are trying to pursue it, where it's map once and use multiple times, that fits very nicely with what they're doing. This whole strengthening and integrating of the obs and the data collection fits beautifully what we're trying to think about for Marine Spatial Planning.

The backbone of spatial planning really needs to be having the appropriate data to bring to the table with the right people. And if you don't have the data, you can get everybody at the table. But we've certainly had plenty of experience ourselves with that quite often doesn't lead in the right

direction if you can't pull out the appropriate data to share with everyone as a basis for how you're going to talk and then make decisions.

Next.

I talked about opportunities. I think there's others here. Some of these have been around for a long time and I don't know where they're going to go. But certainly this new National Export Initiative, it's run out of I think ITA in Department of Commerce. It's a major push to try and get us more globally engaged in trade and export.

One of the things, though, that really at least was not part of the original initiative is, gosh, for the nation to be more competitive, doesn't it need to have the appropriate Nav Services for those ships that are going to be coming in and out in that export/import to have the appropriate products and services to get in and out efficiently and effectively. So we've tried to add that to

the discussion and the debate. And NOAA has someone that's head of the MTS Committee who is really trying to promote this as a component to that trade initiative.

Panama Canal Expansion is another interesting area. I was just down in Norfolk a couple of week ago talking with folks there. And Norfolk is sure gearing up to try and be one of those ports that is competitive in the middle of the new larger vessels that the Panama Canal Expansion is going to affect. And so, again, this gets to critical products and services as a result of that expansion and port development and how that's going to take place and who are those ports that are going to get the business.

Harbor Maintenance Trust Fund, a lot of money. We've been trying to get at it for a long time. I don't know if there's any latest for what can or can't be done. But that would be an excellent way to expand the investments that maritime trade and commerce

needs to really have its ports and harbors do what it needs to do.

And then the last thing, and I've kind of referred to it as the economy and the role in terms of economy and trade and dollars generated that the whole Navigation Services side of the house really generates. We've been spending a lot of time trying to generate better numbers. There's some really great stories out there about what we do and how it affects dollar-wise what happens around the country.

Next.

And then finally, our strategy. As I said, the Governor's kind of already given the bottom-line pitch. But we need you guys to really make sure that we are aligned and supporting the priorities. That whole economic silo benefit thing is huge for us right now. So down in Norfolk meeting with the private sector and some of the maritime organizations, they talked about the benefit

of our services and how important they were as they expanded and developed. And I said, man, I want you as Exhibit A on the Hill with me very soon; are you willing to do that, and then he said, absolutely.

But that's really important for us. And the more we can tell that story, as the Governor was suggesting, the less, then, hopefully we will be looked as one of those that can be drawn through a budget.

Again, we're working very hard to make sure that we're meeting the needs of the constituency, but I think that's what we need you guys for; are we really getting there?

And then finally, this whole thing about -- Rich -- stakeholder support and the role that you can play. Extremely important for us.

And I think that's it. Was there another slide or no?

MS. DENTLER: No, that's it.

MR. KENNEDY: Yes. That's it?

So I was supposed to start by adding my welcome and thanks for all of you for being part of this group. I think it's fantastic that we have the new members. We apologize for the length of time it's taken to get there. A tremendous amount of work behind the scenes to generate what was required to bring the new people onboard. But welcome, and thank you for your support. Look forward to the next two days.

So, with that, I don't know. Do I answer any questions now or do we keep going? Ed, what do we do?

CHAIR WELCH: I think we ought to pepper you with questions.

MR. KENNEDY: Okay.

CHAIR WELCH: Well, first, thank you, David, for the overview.

MR. KENNEDY: Yes.

CHAIR WELCH: Let me start with a question, and for those of you who are not necessarily thinking about the federal

government every day of your lives, the federal budget year runs from October the 1st through the next September the 30th. So when David says fiscal 2012, he means the budget and the funding that will start this coming October 1st and go until the end of the next September. And that's the budget where the President has proposed a budget but Congress hasn't acted on it yet and there certainly will be major debates about the fiscal '12 budget.

The fiscal '11 budget, which is the fiscal year we're currently in, is the one that it took six months until just about six weeks ago for Congress and the President to come up with a compromise.

So when David says we did okay, we were more or less stable in the fiscal '11 budget, that's what he was referring to. And the next budget will be debated over the next six months, or eight months or ten months. It should be done by October the 1st but if

recent history is any prediction, it will last longer than that.

But I have a budget question, David.

MR. KENNEDY: Yes.

CHAIR WELCH: You indicated that you still are waiting for the particulars of the fiscal '11, the current fiscal '11 budget --

MR. KENNEDY: Yes.

CHAIR WELCH: -- and what it means to National Ocean Services and Nav Services. But isn't that kind of an internal decision or debate within NOAA as opposed to something that's being acted on up at the Hill. The Hill and the President have done their thing.

MR. KENNEDY: Well, here's the problem. It is an internal discussion, and has been. We've had a number to work with and NOAA has parsed out to the Hawaiian offices, so Ocean Services got a number with some suggestions of what to do. There's been back

and forth with NOAA budget. And we believe we're kind of pretty close to what we think is okay, our budget. But that's not the end of the line.

Now we have to take it back, once we've gotten to this point to Commerce, OMB and the Hill.

So, I would love to say that it was an internal thing because we would be done. And I think we've pretty much done a back and forth. But, we're going to have to send it back around for final approval.

And as you may know, you would know, there's certainly still some complications with the fact that there are no earmarks, but there are, but there aren't. And so we're still around the edges trying to wrangle with, okay, you gave us a number, does that truly mean we don't have earmarks. Well, no. Yes. No. Yes. It means you have no earmarks, but here's the things that Senator So-and-So wants to make sure that you really,

really consider. Okay, but those aren't part of my budget. I know, but.

So part of the uncertainty still is how much of what isn't an earmark and won't be, will be.

CHAIR WELCH: Okay. Thanks.

Joyce.

MEMBER MILLER: Yes. How does that affect --

CHAIR WELCH: And, Joyce, at least for a while let's introduce ourselves every time we speak. Because we don't all know each other yet.

MEMBER MILLER: Yes. Okay. Joyce Miller again.

How does that affect Nav Services in particular this whole budget uncertainty? You know, what does it do to their planning ability; their use of ships? You know, how does that roll down?

MR. KENNEDY: It affects them like it affects everyone. But that's a leading

question.

MEMBER MILLER: Yes.

MR. KENNEDY: Because it dramatically affects their ability to look out. And so for months Coast Survey, the Nav Services in general, have had to ride the roller coaster with us about okay, here's the latest scenario You're not now cut $50 million, you're cut $200 million and how do you get by. And so there has been no stability in being able to kind of look out and know that you can fund the following things and move out.

Complicating that even further, and I don't know. Captain Lowell, what do we say about the ships? Is this anything you're going to talk about, the ship time and vessels and that whole deal?

CAPT. LOWELL: I'm not going into detail on that. But obviously the budgetary uncertainty has affected not only the ships and the sea days and the staffing of those

assets, but also our contract pot. Basically is we haven't been able to spend any kind of money, and it's been an impact directly for like work in Alaska. If we don't get it out the door right now, it will seriously reduce our ability to collect data.

So we're struggling with that right now. We're spending on the numbers that we think we're going to get minus some safety factors. But we're starting to move on it right now. It's been very much a challenge.

MR. KENNEDY: Yes. It's just extremely difficult. I just don't think the general public has any idea of how crippling this kind of a debate is to due process in the government. It's been pretty tough.

Yes, sir.

MEMBER JAY: David Jay.

I was curious. I don't understand the budget process all that well. You had this big budget compromise.

MR. KENNEDY: Yes.

MEMBER JAY: So you got a budget number, but what kind of approval do you have -- you said "all the way back to the Hill." Is this because of the oversight role of congressional committees or what is that?

MR. KENNEDY: They're interested to make sure that with the lump number that we got, that then it's broken down and we're coming back with investments in specific areas. All different parts of Congress have interests in all different parts of what we invest in. And so they didn't tell us exactly what to invest in, so now they want to look at that. And they want to say "Okay, we gave you a big number and you figured it all out down to the individual lines as to what you're going to invest, and then we want to look at that and see if we think you did right."

MEMBER JAY: So that's not the House Budget Committee, that's an oversight committee?

MR. KENNEDY: Yes, right. So

that's -- and again, we've got go through Department of Commerce and OMB both before we get there.

So, and given the Congress we have, particularly in the House, some of the things that we are investing in, they may not be happy with. So it's not out of the question that even some of those things that we have currently said we're going to spend money, we may now still hear "No, we don't want you to."

Yes? I'm sorry. I'm taking your role away, and I won't do it anymore.

CHAIR WELCH: That's all right. That's all right.

MEMBER JACOBSEN: Tom Jacobsen, Long Beach Pilots.

You touched on the Harbor Maintenance Trust.

MR. KENNEDY: Yes.

MEMBER JACOBSEN: And you looked into using that. Is that just you're not

going to try that again or is there a chance we could use that for some things like the port system?

MR. KENNEDY: I think I've probably been involved in trying to get at the Harbor Maintenance Trust Fund for 25 years of my career. So the answer is we are continuing to discuss and it does occasionally get on the table let's try this again, or have we thought about this. So we're trying to get access to it. But it's an offset for the budget, and that's a tough road to hoe to get anybody to want to actually let us use it.

MEMBER JACOBSEN: Yes.

MR. KENNEDY: And then there's a lot of concern about who all would want to use it if they did open door.

MEMBER JACOBSEN: I know the Port of Long Beach looked into it to use some of that money for the port system locally.

MR. KENNEDY: Right.

MEMBER JACOBSEN: And if other

ports would jump in, maybe that would help with having port authorities, you know the West Coast, Gulf Coast, help out. Would that work?

MR. KENNEDY: Well, I think any advocacy for getting access to the funds, especially as it relates to stuff that there's been a big debate about. You know, who should fund it and in many cases the argument is well the government ought to fund it and the government is trying to get the private sector involved, or at least the local folks.

And so anything that we can do to offset and get some things moving along that line with that fund, we'd love to work with or have an advocacy, I think.

Is there any kind of official where we are with the Trust Fund right now, Paul, or anyone?

MR. BRADLEY: Yes. I'd actually like to weigh in that.

I'm Paul Bradley, I work in the

Management and Budget Office at the National Ocean Service.

And there's an interesting development on Harbor Maintenance Trust Fund right now because OMB is apparently interested in opening that pot up to fund some of NOAA's base programs. And not to expand basically with the moving of the boxes, rather then expanding the box. So some of NOAA's programs that this supports directly, not supports the program but individual port's, it's supporting directly, you know they're considering whether it would be advantageous to fund some of those programs. The base, you know based on not new money from the Harbor Maintenance Trust Fund.

I think there's going to be a lot of discussion about that from the industry folks, you know the people paying the tax. Because, obviously, dredging is the number one concern there and they want more flex to be able to maintain dredge depths. And so it's something that the folks are looking at, and

I think certainly we're into following it closely.

I think your point about trying to show that NOAA's PORTS Program, for example, how that supports ports and maybe looking at that as a use for Harbor Maintenance Trust Fund, but getting support from industry would be helpful.

MEMBER JACOBSEN: Well, exactly. And I think, you know if the ports and the pilots can show that, you know using the right equipment, the port's equipment and the air gap sensors, you know we can bring bigger ships in without dredging. I mean we still need the dredging, but we can do it more efficiently. So I mean, there's ways of showing this, and I'd just like to get people together and keep pushing for it, tapping into that source.

CHAIR WELCH: Let me make a comment. This is Ed Welch.

The Harbor Maintenance Trust Fund,

perhaps not everybody is fully familiar with it. It is a statutory program created by law by Congress. There is what amounts to a tax, ad valorem tax on the value of cargo imports and also passengers on vessels that come into the United States. And it's been in existence for about 25 years now, maybe 30 years.

And money that is collected goes into this "trust fund." And it is appropriated, supposedly, each year by Congress for certain types of dredging activities and maintenance activities of ports around the country.

The problem is Congress and several Administrations have not -- they've been collecting more money then they've been appropriating. So at the same time as dredging needs are not being taken care of in the view of lots users around the country, and the harbors and the channels are silting up, this money which has been collected for the ostensible purpose of dredging the harbors is

piling up in the Trust Fund.

So you can imagine that hacks off all the people that are paying the taxes and all the people that run port authorities, and all the people that do dredging contracts. And so they are continually saying "We've got a dredging crises. We have a port crises. We're collecting money for this purpose and we aren't spending it. Let's spend the money and get our physical facilities and ports back in shape."

So that's the basic political fight.

MR. KENNEDY: Yes.

CHAIR WELCH: But adding to that is that anytime in Washington when a pile of money starts accumulating, it starts looking attractive. Because they say,"Hey, we need money for." The know-all nautical services or various types of trade promotion policy.

So there's a community of people that are saying (a), we want to defend what we

got and we want to spend it for the original purposes. And (b), then there's a bigger community of other folks who are somewhat related to the original purpose, but not exactly, who are saying "We could use some of that money." And this secondary group is resisted by the first group. They're saying "Hands off our money. We got enough problems just trying to get it spent for the original purpose."

And so you got the money accumulating. You got people fighting as to should it be spent for the original purposes or should the purposes be expanded. And any kind of a change is going to require legislation of Congress. This is not something the Administration can get together and decide as a part of their budget proposal they're going to start spending the money for some other purpose.

So that's what this Harbor Maintenance Trust Fund debate is all about.

And similar trust funds exist in other things. For example, there's an Oil Spill Pollution Trust Fund which collects money that is supposed to pay for our prevention and response to oil spills. And, obviously, has been used quite a bit in the last year.

You know, one of the things some folks, including me, say is "You know, to the extent that proper nautical systems or navigation systems or the ports system that's run by NOAA prevent ships from spilling oil in the first place, that's a very efficient use of money from the Oil Spill Trust Fund. You're preventing spill in the first place rather than wasting a lot of money trying to skim up the spill afterwards."

So this type of debate on the Harbor Maintenance Trust Fund is replicated in other parts of the Federal Government.

Gary?

MEMBER JEFFRESS: Gary Jeffress,

Texas A&M University, Corpus Christi.

With this aspect of funding through the Harbor Maintenance Trust Fund, I'm assuming that the Corps of Engineers gets the majority of that for dredging purposes, is that correct?

CHAIR WELCH: I think that's correct, although it's ultimately the people that do most of the work are private contractors.

MEMBER JEFFRESS: Okay. So this is how ports fits into this. In Texas right now we're rebuilding two tide gauges which are part of the port systems. One for the Sabine Pass and one for the Houston-Galveston port system. These are the large sentinel structures. And the Corps of Engineers is funding that and the money is coming from Ike damage reconstruction. But they will be integrated back into the -- they're replacing TCOON, Texas Coastal Ocean Observation Network tide gauges which were destroyed by Ike.

And part of the instrumentation that they're putting back onto these super tide gauges is precise GPS positioning. We're putting CORS stations on these tide gauges.

Now the Corps has requested these because they want to start using machine controls for dredging them. You know what machine control is, you use precise GPS positioning now to control machines like road construction, graders or farming equipment. They want to start using it for dredging which will integrate real-time water level oscillations with precise positioning to get a three dimensional dredging operation fairly accurate, which is actually going to make dredging a lot more efficient.

CHAIR WELCH: So it becomes part of the infrastructure for a dredging project?

MEMBER JEFFRESS: Exactly. And so the Corps is looking at this as a way to, you know make their dredging numbers lower and theoretically it can save millions and

millions of dollars. But at the same time this is going to be integrated into the port system so then you can also use it at Galveston. So it would be worth a lot to make that efficiency argument to incorporate for the funding of ports for that sort of technology for future funding of the Harbor Maintenance Trust Fund.

CHAIR WELCH: I think so that we can stay on schedule, we need to sort of wrap up this session with David. So I think what I'll do is, again, thank David for his presentation and his presence.

How long are you going to be able to be here?

MR. KENNEDY: Oh, I'm here off and on for the next two days.

CHAIR WELCH: Okay. Oh, good.

MR. KENNEDY: So I got a couple of things I got to do on the side, but I'm in and out.

CHAIR WELCH: Particularly you new

members who don't really know David, I hope you'll have a chance to individually spend some time with him, and talk to him a little bit about your situation and your interests.

And one more thing before we move on, we skipped this before. We need to take a moment and go around and have each Panel member introduce himself or herself, what your affiliation, where you location is and a little bit -- just a very little bit of background as to what brought you to this profession and this Panel. Also whether you're a new member or a returning member.

So if we could, let's start Captain Jacobsen.

MEMBER JACOBSEN: Tom Jacobsen, Long Beach Pilots.

We use in Long Beach, we use a lot of technology to bring the ships in and out of the port, high precision GPS equipment and also the PORTS system. But we move about 7,000 ships per year, so that's what kind of

got me into this group.

CHAIR WELCH: And you've been on the Panel three years

MEMBER JACOBSEN: Same as you?

CHAIR WELCH: Yes.

MEMBER JACOBSEN: Yes.

MEMBER HICKMAN: Sherri Hickman, pilot in Houston. Been a pilot 17 years and like, Tom, that's what got me on this Panel.

We use a lot of the PORTS programs. I have my navigation computer right here if anyone wants to see how I can pull all that stuff up. I don't have my antenna, so I can't show you us moving on it, but I can show you the PORTS programs that I do have on there.

And I was advised today that I'm like the oldest member, not age-wise but tenure-wise on this Panel.

MEMBER CAROTHERS: My name is Jeff Carothers. I'm the -- I used to say marine surveyors, but in this group I can't say

marine surveyors; those are the people that look at ships and decide whether they're seaworthy or not. So I'm going to say I'm a hydrographic and geophysical survey manager for Fugro Consultants in the United States.

Started out in this business about 1979 and done nothing else since.

Located close to Long Beach in Ventura, California.

And this is my first year on the Panel.

MEMBER JAY: I'm David Jay. I'm a Professor at Portland State University. And I have a whole lot of interest in tides, long term changes in tides and sea level. I work closely with the Port of Portland related to navigational safety issues, long term changes in how much water we have under ships coming into the harbor, which is a big issue, a big concern for them. Salmon restoration, salmon habitat; a whole lot of things.

And by the way, the Port of

Portland is keenly interested in salmon restoration, too, because it's connected to their dredging. So these issues aren't as separate as they used to be and everybody's trying to pull together, at least in the Columbia River.

CHAIR WELCH: And our Panel had a recent meeting right across the river from Portland in Vancouver, Washington.

Lawson?

MEMBER BRIGHAM: Good morning, everyone. I am Lawson Brigham from the University of Alaska, Fairbanks. And I teach geography and work on Arctic policy and am fairly involved with the Arctic Council, Chair of the Arctic Marine Shipping Assessment, which I'll talk a little bit about tomorrow.

As a matter of disclosure, I was a Coast Guard officer for three decades, and I was on the maritime side, like the Captain in command of a bunch of ships, including a polar icebreaker at both ends of the world. So my

interests are polar, but all maritime interests of the Committee.

Somewhat involved distantly in pushing elements of the National Ocean Policy work, behind the scenes I would say.

MEMBER PERKINS: Good morning. Scott Perkins with Wilson & Company, engineers and architects.

I'm a surveyor by practice experienced with doing ports and harbors on the Great Lakes, shallow water habitat on the Missouri, Mississippi, Illinois waterway, a variety of navigational chart services and hydro chart services for the Corps of Engineers. And then participate under shoreline mapping contract, you know, for NGS.

So it's a pleasure to be here and an honor to serve.

MEMBER MILLER: I'm Joyce Miller. I'm with the Joint Institute for Marine and Atmospheric Research here in Honolulu, that's part of the Research Corporation of the

University of Hawaii.

I work very closely with the NOAA Coral's program. I've been out here for about a decade.

I've been doing multi-beam surveying since the first NOAA vessel the surveyor had the multi-beam on it. And I am a commercial certified hydrographer and have worked commercially as well.

We've been mapping out here in Hawaii under a lot of different funding, but one of the NOS programs, Coral funding jointly with the University of Hawaii.

And I'm very interested in this meeting being out here. It's great to have the Panel finally come out after it's what? Eight year existence. And I'm pleased to be on the Panel.

Thank you.

MEMBER SHINGLEDECKER: I'm Susan Shingledecker. I work for BoatUS, the Boat Owners Association of the United States. So

relative to most of you, I look out for the little guys.

We have over half a million members who are the nation's recreational boaters. We're also a boat insurance company, so things like sea level rise and storm predictions and those kind of things, navigation, running ground those all impact us as well directly as a private business.

I work for the nonprofit part of BoatUS, the BoatUS Foundation for Boating Safety and Clean Water. Obviously navigational safety has a big impact on recreational boats. I run all of our environmental programs, so anyway that a recreational boat can impact the environment falls under my jurisdiction.

Happy to be here.

VICE CHAIR WELLSLAGER: Good morning. My name is Matt Wellslager. I am an employed or second term officer with the HSRP. I am the Vice Chair.

I am a surveyor by training. I got into hydrographic surveys in my first professional career as a NOAA Corps officer, and then moved to the South Carolina Geodetic Survey where I have been working with geodesy, spatial planning and mapping.

I administer a real-time network of 52 GPS and GLONASS receivers and find the interesting comments that Dr. Jeffress about real-time tides and dredging using real-time networks very thought provoking. Because these are going to be things that we as a group will look at needing to address in the future. These networks are growing and it's a service that can be done and used to facilitate projects quite well, and the savings are great robust as well.

But thank you.

CHAIR WELCH: I'm Ed Welch. Originally from North Carolina. Been in Washington, D.C. area for 30-something years.

I'm currently in the private

sector representing and providing advocacy for various types of commercial maritime users including the U.S. Passenger Vessel Association. I represent some foreign shipping cargo companies as well.

For 20 years I was on the staff of the House of Representatives and was the chief counsel of the House Committee that had oversight for most of the NOAA marine programs as well as shipping and Coast Guard.

I'm in my third year on the Panel.

CAPT. LOWELL: Yes. I'm Captain John Lowell, I'm the Director of the Office of Coast Survey and also what is referred to as the DFO or Designated Federal Official of this Panel.

Thank you.

MS. BLACKWELL: I'm Juliana Blackwell, the Director of the National Geodetic Survey. And I've been with NOAA for 21 years. The first third of my career was in the NOAA Corps and gained a great deal of

operational experience with hydrographic and geodetic surveying.

MR. EDWING: Good morning. I'm Richard Edwing, the Director of the Center for Operational Oceanographic Products and Services. This is my 35th year of service to NOAA.

The first 20 years I started with CO-OPS and worked for CO-OPS for 20 years. And then I accepted a detail up to the NOS Headquarters to help out with budgeting and strategic planning, and legislative affairs and those sorts of things. And ended up staying a bit too long because I was eventually made a division chief up there doing those same sorts of things.

Came back to CO-OPS in 2002 as a Deputy Director. And about a year and a half ago became Director when Mike Szabados retired.

MS. WATSON: Kathy Watson, HSRP Program Coordinator.

MEMBER JEFFRESS: Gary Jeffress, Professor of Geographic Information Science and Director of the Conrad Blucher Institute for Surveying and Science at Texas A&M University at Corpus Christi.

My background is as a land surveyor. First trained in Australia, and then to the University of Maine where I got Ph.D. in survey engineering.

At the Blucher Institute we house two programs that are associated with HSRP. That's the Texas Coastal Ocean Observation Network, it's a network of over 30 tide gauges, including the National Ocean Service gauges in Texas constructed to NOS standards. Primarily to determine the littoral boundary issues in Texas. That's the legal boundary between submerged lands owned by the state and privately owned uplands. That data goes into courts so it has to be to national standards.

We also run the blueprints to the Texas Spatial Reference Center which is sort

of like a branch office of the National Geodetic Survey. We offer State of Texas Geodetic --

MEMBER DIONNE: I'm Michele Dionne, and I'm a coastal ecologist with the Wells National Estuarine Research Reserve, which is one of 27 reserves around the country that are state/federal partnerships within NOSOCRM. And I've been there for about 20 years and have developed a program that represents many of the other uses that Nav Services and HSRP products are relevant to. We're very involved in trying to -- and not only at the Wells Reserve, but nationally trying to develop programs to understand coastal habitat change that are driven by changes in weather and climate, and so therefore vertical control is very important as well as mapping and other more sophisticated GIS/GPS sorts of technologies.

We have been a leader within the Gulf of Maine in restoring tidal flow to what

we call tidally restricted coastal habitats, especially salt marshes. So we're thinking of hydrology a lot that way.

And then you mentioned in Oregon, I believe, how they're trying to create habitat for salmon, intertidal habitat for salmon. So there's a nice interesting kind of marriage there between port expansion and maintenance and positive environmental things.

I am a fish ecologist, so I am always thinking about ways to improve or restore coastal habitats to support more robust populations of fishes. As most people know, they are just a shadow of their former selves.

I'm also involved with the NERACOOS, the Northeast Regional Association of Coastal Ocean Observing Systems. Again, very much their vision of observing and collecting data has a lot of overlap with this Panel.

I'm also on the National Focus

Team for the Sea Grant Healthy Coastal Ecosystem Team. And so there's some overlap there as well.

And I guess that's enough for the moment.

CAPT. GLANG: Good morning. I'm Captain Gerd Glang, NOAA Corps. I'm not on the Panel, but I am on Mr. Kennedy's staff as a Strategic Planner. I've been involved in developing the coastal goal for the NOS. And that's the role I'll be playing today.

Thank you.

LT. RYAN: I'm Lieutenant Kyle Ryan. I'm the Pacific Islands Navigation Manager. So I'm the pointman for Office of Coast Survey.

MR. BRADLEY: Paul Bradley. I work in the National Ocean Service Management and Budget Office coordinating policy and legislative affairs as they relate to NOAA's three Navigation Services offices as well as the integrated Ocean Observing System.

MS. DENTLER: I'm Virginia Dentler. I work with CO-OPS.

CAPT. LOWELL: Well, for the benefit of the new members, I just want to make a quick point. All of you, the 15 of you as non-Feds are voting members of the Panel. The three of us who you see sitting up here, we are members of the Panel, but we're nonvoting members. So should there be any votes or anything we step aside when that occurs.

There's also two other nonvoting members of the Panel, Andy Armstrong, who could not make this meeting he's at another conference. I think he's getting the program recertified, which of course we're interested very much. And Dr. Larry Mayer who has only been peripherally involved with the Panel. He actively wants to get back involved. And he had every intention of coming to this meeting until, of course, he was pulled away on another topic. So there are two other

nonvoting members of the Panel.

And we do have three members who didn't make this meeting here: Mr. Stephen Carothers from Maersk, Ramon Torres from San Juan, Puerto Rico and --

MS. WATSON: Steve Carmel.

CAPT. LOWELL: -- Steve Carmel. Oh Steve was Maersk.

MS. WATSON: Steve was Maersk.

CAPT. LOWELL: Bob Hanson. And I should mention that if Bob mention was here he would have waded in quickly and forcibly on the Harbor Maintenance Trust Fund discussion.

CHAIR WELCH: Okay. Thanks very much. So that's who we are and we'll get to know each other, and little more about each other as we proceed.

We are trying something a little bit new on the agenda from the past Panel members. We're going to have three of our actual voting panel members make presentations later in the program, areas of their

expertise. So we will look forward to those presentations.

At this point, we're going to recognize Captain Glang to lead some discussion. One of the things that NOAA is hoping for our Panel to do is to engage in some strategic and long-term thinking. So you will hear us discussing how we can do that over the next several days. And we'll wrap it up on the third day with some intense discussion along those lines.

But, Gerd, why don't you make your additional comments at this point.

And I will point out that a little bit, maybe 20 or 25 minutes from now, we'll take a break in his presentation and then finish up after the break.

CAPT. GLANG: Okay. Thank you, Ed.

I am Gerd Glang.

I wanted to point to a few things. One was Mr. Kennedy opened really well with

his PowerPoint slide, and we may go back to that. But there are a couple of slides in there that are really good. They'll help frame some of the background for you all of how we're shaping our strategic planning in the coastal goal to meet the priority objective of the National Ocean Policy through our NGSP, Next Generation Strategic Plan.

But I also wanted to remark or remind and then share with the returning Panel members when the new Panel members were sworn in about two months ago and you had your initial training session in Silver Spring, Maryland, the NOAA Chief of Staff Margaret Spring came. And she's currently serving also in the role as Chair of the Committee on Marine Transportation System. But she had some remarks that she shared with the ten new members, and there were about five points that I was going to pull out of that that we had shared with the new members. I'm not sure if we covered it with the returning members.

So the first point she mentioned was: "I would be interested in your thoughts on what the CMTS could focus on as well, and how NOAA can best engage." So that's the Committee on the Marine Transportation System.

And the second --

CHAIR WELCH: And if I might, Gerd, the Committee on the Marine Transportation System is an intergovernmental coordinating committee, I guess, of about 15 to 20 federal agencies from the Defense Department to some environmental agencies and everything in between that have some role in marine transportation. And like now, NOAA in the person of Margaret Spring is the Chairperson of that Committee.

CAPT. GLANG: The second point that she mentioned, which was also mentioned this morning, the National Export Initiative. And she's anxious to hear examples of that where NOAA's Navigation Services can help to support the National Export Initiative.

The third one was National Ocean Policy. So NOAA's Navigation Services play an important role in several of those ocean priority objectives which were on that slide this morning. And we can go back to that.

The fourth one she mentioned was the State of the Union Address from earlier this year when President Obama called for the U.S. to "win the future through bold improvements in infrastructure, innovation and education." So her comment was she was eager to hear our thoughts on how NOAA's Navigation Services can contribute to this future.

And then the fifth and final point or theme that she conveyed to the new Panel members was specific to the coastal goal, which we more formally call it the Resilient Coastal Communities and Economies Goal, it's one of the four mission goals within our NGSP.

So the intent here for me today is to spend this first 20 or 25 minutes that we have until the break to sort of throw out

those ideas. We can also talk about the guidance document that should be in your packet that Office of Coast Survey put together to help steer you, but really we want to have an unstructured conversation within the limits of the recording here. We want to make sure we're not talking on top of each other. But really encourage the other Panel members to ask questions. Maybe you heard something in one of these conversations this morning or you read something about our strategic planning that you want to know more about, or put your ideas on the table.

We have another session 45 minutes after the break. And then on Friday afternoon the Panel will meet again for a final session and, hopefully, we can tease out at that point something more concrete, something you as a panel want to engage in.

Any thoughts up to that point?

CHAIR WELCH: Gerd, do you know, did Margaret Spring have a written copy of her

remarks, and if she did can we have that distributed? Not necessarily now, but to all the Panel members?

CAPTAIN GLANG: Yes, we can do that later.

CHAIR WELCH: I think those that weren't at Silver Spring -- it only takes five minutes to read through them and she's one of the senior NOAA leaders. So it's nice to see what the leadership at the top is thinking about in terms of what this Panel can do.

CAPTAIN GLANG: So a couple of thoughts. So we want to sort of prime the conversation here, let you all talk about what you're interested in and how you think the Panel can best serve the Navigation Services, how we can get the most out of this. But also think about how you want to carry that out.

What we'd like to be able to do is when the Panel reconvenes in about half a year is actually share some of your work in some form, whether you've met offline in some

smaller working group or we shared information.

I don't know how many of you have prior experience or other experience with FACAs or with these kind of board activities. I'm sure, Ed, you've thought about this a little bit.

So there's sort of the strategic framework of what we're asking you to look at and consider, and then there's the kind of process or the mechanism of how we might want you guys to act on that information and more fully develop ideas that the can Panel can push forward.

CHAIR WELCH: Okay. Gerd, thank you.

I know particularly of the newer members, you might be thinking well how can I think strategically if I don't know too much about the day-to-day type of operations of this particular part of NOAA. And I know that's a challenge, so I think it's incumbent

on those of us that have been here a little bit of time to sort of give you some thoughts.

I made a list of several of the themes of prior Panel meetings that I think possibly might be something that we could get into strategically. This is not an exhaustive list. And, you know obviously we can't do everything on this list. But let me just read you some of the things I jotted down.

There's been some discussion in prior Panels about what role NOAA can play in ensuring that there is a trained community of hydrographers in the country, either to go to work in the agencies or be in the private sector. And is that a government role? Is that a NOAA role? Should it be? Really, I guess, my understanding is there are only a couple of special universities around the country that have concentrations in that. So in other words, what role does the Federal Government through NOAA have in investing in the human part of this infrastructure? So

that could be something for discussion.

One of the early sets of debates in the Panel before I came on, Sherri probably can give us some insight about this, in the past there was quite a bit of controversy, political controversy about the relative roles and importance of the private companies that engage in hydrography versus the NOAA Corps and the Federal Government. You know, should the majority of stuff be contracted out, do you keep it in-house? How do you balance that?

To me if there are going to be funding constraints on the Federal Government, obviously there's a renewed question as to how much should you rely or must you rely on private sector resources to do some of the work? So, that could be a strategic question.

Although it's not something in recent years that really has gotten a huge amount of attention because I think eventually a more or less satisfactory balance was struck

between the private sector and the public sector.

As the Agency moves into new areas, particularly the Arctic, and if budgets are static, does an expanded concentration on Arctic programs necessarily mean a diminished concentration on other areas? And if so, is that appropriate or wise?

I personally have wondered is there way of quantifying -- I mean this is a crude way of saying it. But what unit of effort is necessary to make a nautical chart in the Arctic versus a nautical in Long Beach Harbor? Is there some way of making that comparison?

The question of a NOAA vessel and other physical resources and whether and how to renew them I think is a strategic question.

Also, are there possible new types of technology, say unmanned devices that can take over a larger role in hydrography?

A continuing issue is, is there

some magic solution to continued funding for the NOAA PORTS system, that's a real time observing system in many of our commercial harbors that has been embraced by a lot of users with which really there's never really been a settled policy decision as to how to ensure that these things are funded over the long term.

Should there be a renewed effort for users of the products to add more of a financial contribution towards NOAA's cost of producing the products? One example is that the State of California a couple of years ago engaged in a major sea floor mapping project where they actually put a significant amount of state funding in matched with federal funding. That's not the normal way of doing things, but it worked in that particular project.

You know if we're going to have oil exploration and development in the Arctic and that triggers a need for nautical services

up in the Arctic, should the oil industry as part of their lease payments fork over a little bit of money into NOAA for supporting their efforts up there?

If the Defense Department needs baseline surveys of harbors for terrorism purposes, is that something that NOAA should absorb or should the Defense Department make a contribution?

And then there's sort of a fundamental question that has come before the Panel in the past, which is virtually all of the weather services around the country, extensive weather services, seem to be provided at no cost and full federal funding to all the users. And, you know what's the difference as far as ocean observations and navigation type services? The only difference I can see in terms of policy is the Weather Service got started a long, long time ago and navigation services just didn't quite have the oomph to get the same policies put in place.

So those are some things that I just listed that could be the subject of strategic type thoughts by the Panel. But again, that's not an exhaustive list and other people are in this meeting and subsequently may want to come up with your own suggestions.

But we need to start thinking about that because NOAA does want-- you know, my feeling is the Panel has been doing quite a bit of long range thinking previously, but we might not have called it strategic thinking. But NOAA leadership is making a very specific request to us that we think strategically and label it accordingly, and we need to respond.

Lawson?

MEMBER BRIGHAM: Lawson Brigham from Alaska.

I'll give you one number, since you were asking for quantitative information. Six to seven percent charitably of the Arctic Ocean is charted to international navigation

standards. It would be nice for NOAA to come up with a number, of sorts, for the United States Arctic for all our EEZ.

I can't believe its more than 10 percent, 15 percent to navigational -- you know, where you can take a ship and sail it across. It's a useful number because if you're talking about marine safety and environmental protection not even touching the maritime trade facilitation question, just for safety and environmental protection we don't have any charts. And the whole of the Arctic doesn't have any charts.

So I'll tell you tomorrow that there's a lot of activity. There's a lot of ships that are operating in the Arctic, including some of the largest cruise ships and some large bulk carriers. They're operating with, let's just say few charts. So as all the other gizmos and great capability today, there's not enough hydrography and charting. So I think we need some numbers.

Like, I agree with you, Ed, that when we're talking to the Congress or talking to other agencies of the United States Government, we need to put at least Arctic in context with -- at least quantitatively, a little bit and what does it mean.

Can I make one more comment?

CHAIR WELCH: Sure, please.

MEMBER BRIGHAM: On the national ocean policy stuff, from what Gerd said and what you said, David, this morning I think the promotion of it has been environmental stewardship, or at least I'll give you my citizen's perspective on it, and not enough environmental security and economic security, an economic component to it. I mean, I think it's all mixed together. I think I understand the concept. But the economic security part of it it doesn't seem to get enough play, maybe more at the meetings currently going on in Washington. But it sounded to me exclusionary, protection and not enough, hey,

this is all about economics and trade and use of the oceans and facilitating that use.

So, I think you came around to that in your talk in the end, but I thought the promotion of it still is a little bit too -- even though I support it from a safety and environmental protection standpoint, environmental stewardship maybe is not defined holistically, maybe. I don't know. Just a challenge.

CHAIR WELCH: Yes, please, David, can --

MR. KENNEDY: Just in terms of maybe a strategic thought. Something from this Panel commenting on the Ocean Policy and/or what may be the more specific comments on the pieces that are relevant, might be very useful. I think that's a great observation and I guess from my close and personal experience you're not that far off.

Conceptually I don't think that's what they have in mind, but that does seem to

be the projection. And so something just to keep I think in all of your minds you think about what you might want to address that might be pretty strategic and useful is some comments back from this Panel to the organizers of the Ocean Policy about what you think is important and maybe what they need to be stressing that you don't think they are. So, I think that's a great comment.

CHAIR WELCH: If I could make an observation and then we'll turn it to Joyce.

The coordinating agency for the National Oceans Policy is in the White House, but it's the White House Council on Environmental Quality. So that says a lot just in and of itself.

MR. KENNEDY: Yes.

CHAIR WELCH: And as you were speaking, both of you were speaking, I was thinking perhaps at a relatively soon forthcoming meeting of this Panel maybe we ought to consider having a couple of people

from the Council on Environmental Quality come make a presentation. And rather than just us submitting a couple of papers, have them subjected to having to interact with us over a few hours.

Joyce?

MEMBER MILLER: Yes. A follow-up to that and then sort of a question of the sort of level of the Panel.

But I was recently reading Dr. Lubchenco's report to Congress, and I got to the end of it and I searched for the word "ships" or "survey" or "mapping" and I didn't find much. And it concerned me, you know, being on this Panel because it just seems like a lot of infrastructure needed for environmental safety and so forth sits with Navigation Services, and yet it's not really a focus, I would say.

And then my following question is, as a new member, this is sort of a question to the older members and Ed, and so forth. Okay.

We're advising Dr. Lubchenco, right, is that correct?

CHAIR WELCH: Essentially that's correct. Dr. Lubchenco and her senior staff.

MEMBER MILLER: And I'm reading the previous, the 2007 report and the 2010 report, and the first thing that it says is "more emphasis on mapping," more mapping which translates really into more funding. You know, to what extent can she or her senior advisors really -- you know, I guess my question is at what level can we provide useful advice? Saying get more money is -- you know, so what is it that we as a Panel really can do, I guess is my question, and at what level do we advise, since this is a NOAA Panel and not a national panel, et cetera?

And I'll leave it open to anybody who has thoughts on it.

CHAIR WELCH: Well, let me make a comment and then perhaps some of the previous members may want to comment. And I'm speaking

for the earlier panels.

I think when they initially started and when they initially did the first version of the most wanted hydrographic improvements, the Panel felt like it was important to give the Agency an outside, a non-Agency document that the Agency could point to highlighting the needs for more: More charting, more effort, more money. And stating why, and stating how far short of the ideal the status quo was.

And so there was a sense first that the Agency, if they wished to, could use this document to help buttress their case that they made to the Department of Commerce, to the Office of Management and Budget, to Congress, to whoever. So I think that that was sort of the fundamental thought of the original membership of this Panel in producing the original document.

Sherri, you were there. Is there any observation you would make along those

lines?

MEMBER HICKMAN: Yes. I know, like, when we came up with that, a big part of it was it's always the budget. So where are you going to take it from to put it where you need it? At that time, the critical areas that needed to be surveyed were 16 years in arrears. And if we put all the money into the critical areas: Alaska which doesn't have much mapping at all for the timely mapping we should say, we'd still be 16 years in arrears by the time we got -- we'd have another 16 years of critical.

So, we also decided if you only had this much money and you're going to either outsource it to private or keep it in-house, it's still the same amount of money. We also decided that we needed to keep in-house because you need in-house expertise to spec out a contract to private industry. So a lot of that is where that came from. Also with the PORTS program. We were trying to get the

funding, but it's all down to money. Everything's down to money.

So where are you going to take it from if you're going to keep the budget the same? Where are you going to remove it from for our priorities of that initial report?

CHAIR WELCH: The revised report, which was done while I was part of the Panel and finalized last year, was frankly, as much of anything, a political decision. And this report was a group of folks who, for the most, left the Panel given to the Bush Administration. And there was a sense that the new people, particularly folks needed to say to the Obama Administration "You know, this might have been a Bush era document, but it's still the main themes are still pretty much what we agreed on."

So you will see that the '11 document is not all that much different than the `07. And so that was the purpose.

Now that I'm hearing the Agency

say to us, and of course they're going to push for their best budget that they can get, but there are constraints, and they're saying to us if you accept, if everybody accept that there are going to be constraints, we're not going to get to the ideal anytime soon, what advice can you, the Panel, give to us, the Agency, about how to operate and what priorities to set in constrained budget conditions?

And so that's a slightly different task then what the original Panel set out to do. And I think it's a very valid task, and I think it's realistic. And obviously this document still stands.

This document, I think, was useful to the Agency a couple of years ago when the President Stimulus Proposal came in. Because NOAA's National Ocean Service was able to make a case to NOAA's leadership, which was able to make a case to the Department of Commerce, which was able to make a case to Congress

successfully that there are ought to be a fairly significant infusion into the Stimulus bill for some expanded navigation services and charting. And it didn't solve all the problems, by any means, but it could have been very easily for them to have gotten skunked when that Stimulus bill was put together. And I think having this as a baseline document helped them make the case.

David, did you have a comment?

MR. KENNEDY: I did. And at the risk of dominating the conversation, I wanted to maybe address some of what Joyce just asked. And I think two points, one I forgot to make this morning.

Dr. Lubchenco takes these advisory committees extremely seriously. You know, I've seen the past, yes, yes, we got these committees and whatever. So (1) I think we have an opportunity in that she really has been at the table in talking about the candidacy and the importance of getting the

right people here. I mean, Dr. Lubchenco personally clears this kind of stuff.

So, one, very important. And I think that leads to an opportunity because she does pay attention, she thinks that committees are important and I think she'll listen.

Two, the part that I missed this morning is, Dr. Lubchenco has been under-staffed since she's begun. Hasn't had a chief scientist, kind of restructured and had two major kind of assistants, deputy assistants. One is kind of on the environmental ecosystem side, and that's Dr. Larry Robinson, who has been here. But on the observational side, the side that gets closer to the kinds of things we're talking about today, she's not had anyone.

And she announced, I think today to the world something we've known for a while, that she has that second -- does anybody remember the title? I actually wrote it down somewhere, probably can't read it.

CAPTAIN GLANG: It's Assistant Secretary for Observations and Predictions.

MR. KENNEDY: Yes. That's it.

And so she announced today that that is Kathy Sullivan, Dr. Kathy Sullivan, an ex-astronaut, well respected in the community. Oh, there we go. And she starts May 9th.

And the importance there is that I think what the message needs to be as much as anything, and it's kind of message that I've been talking about a lot is, you look at previous Administrations, previous strategic plans, previous national priorities and then you try and find where the National Ocean Service fit; you had a hard time doing that. You don't anymore. You don't anymore. And that's kind of the point I was trying to make up here, and the point that I'm making to all of my troops is we're players, but we've got to go sell ourselves. And we're new to this game because we haven't been able to say "Look at that National Ocean Policy and look at

where all we fit."

Now we have strategic plan in NOAA and we have an annual guidance memorandum. And every place you go the Ocean Service really has a very specific role that you don't have to be embarrassed to try and wind your way through a bunch of explanations to show how you fit. And I think that is the one thing that I'm hoping you guys can help, is carry that message of "Hey, this Nav Services bunch, they do count and here's how they count and they're very important to the economy and they're important to us" in whatever ways you decide you might want to do that.

So that gets back to:

(1) We got an Administrator that I think is listening, and;

(2) I think we have an advocacy that really can help at a high level to help carry that message and further establish the importance of some of the things we're doing.

So, sorry for the speech.

CHAIR WELCH: No. Thanks very much, David.

And I think probably we ought to take our break now and come back and continue the discussion.

But I would like to say, Joyce, in the past couple of meetings we have had very senior NOAA leadership here. We had Margaret Spring, who is Dr. Lubchenco Chief of Staff, and you met her in Silver Spring. And Dr. Robinson came to our meeting up in Vancouver, Washington. And we are still very hopeful and want to be very aggressive in pursuing Dr. Lubchenco to come to as early as possible meeting as we can. We haven't had her yet, and the previous panels have had previous administrators. So, we hope that we can get her. Find a date, find a location that she can be part of our program. And that is -- you know if we're going to be thinking strategically, we want the strategic head of the Agency to be part of our efforts.

So with that, let's take a break of -- how long? Fifteen minutes. So if everybody can be back in place at 11:00.

(Whereupon, the above-entitled matter went off the record at 10:45 a.m. and resumed at 11:05 a.m.)

CHAIR WELCH: Okay. Let's resume our discussion with Captain Glang. But I want to first recognize Gary Jeffress for a comment.

MEMBER JEFFRESS: Hi. Gary Jeffress, Texas A&M, Corpus Christi.

I heard in Joyce's comments about who is listening to us. One of the things that I -- and, by the way, I forgot to mention that I'm a three term as well. Came on with Ed and Tom.

One of the things I've learned in that three years is that the main congressional sponsors of NOAA are coastal states and coastal congressional representatives. And, of course, there's a

bunch more landlocked electoral districts than there are coastal districts. And so that's one of the political hurdles that we've got to get over.

And that goes back to what Dave was asking us to do because obviously the work that NOAA does associate with the economy and creating jobs, which is the highest priority that the nation is facing right now.

And one of the ways we can highlight that is, which came out of our Portland meeting, was that the port of Portland is a big major conduit for exports, but not just from Oregon, but from all the landlocked states up the river and up to the Dakotas. And so all of these landlocked states are producing exports which have to get to their market through the ports, but those congressional representatives don't see that. And we need to highlight the association between ports and the exports that are generated in non-coastal states, and I think

that's going to be fairly easy to do.

And another thing that's happening right, which is actually going to accelerate the National Export Initiatives is the fact that the American dollar has gone down compared to the major countries around the world which makes exports a lot cheaper. And so we're going to see over the next year or two a large increase in exports in agricultural products. Also in the major press a lot of data on shortage of food worldwide. So America's breadbasket is going to step up to take advantage of that, which means more exports versus dollars in our favor. And we're going to see an increase in exports.

So we just have to associate those things that are going to happen with the bottlenecks that may be created in our ports systems.

CHAIR WELCH: Okay. Good. Thanks, Gary.

Let's go back to Captain Glang and we'll see if any Panel members have some further reaction.

Go ahead, Gerd.

CAPTAIN GLANG: Thank you, Ed. Gerd Glang.

So just before the break I thought Kennedy made some really good points, also responding to Joyce and her questions on the budget. So I was going to offer to the Panel, maybe, obviously, given the constraints of the budget, we now understand that growing the Navigation Services' budget is going to be basically impossible in this climate. So maybe that's not what we do. Maybe what the Panel instead can offer, and each of you comes with a very unique perspective on NOAA's Navigation Services or NOAA's services, broader, but maybe the Panel can support, can help us create arguments for preserving the budget that we have. Because I think that's going to become just as important in

developing the '12 budget and the '13 budgets.

So the Panel is, I think, with your different perspectives could maybe consider how do we make a better argument for preserving what we have. And the corollaries to that, and you'll see that in this guidance, where how do we identify more clearly the societal values of the navigation services? And then related to that also were this notion of the navigation services and the value they provide in the non-traditional sectors. And we've got representatives from those non-traditional sectors here on the Panel as well. So maybe there's a little bit of serendipitous design here in how the Panel is constructed, but I think the Panel could make a really good focus on that: How do we make a better argument to the Administrator to preserve the budget that we have? It's something that she can carry back to the Hill to help argue to at least maintain the Navigation Services' budget. So I'm just going to throw that idea

out there. Think about it a little bit differently.

CHAIR WELCH: Yes.

MEMBER JAY: David Jay.

In response to that, I wonder the tragedy of the Japanese tsunami, at least in Oregon got a lot of people's attention that had never thought about tsunamis at all before. I mean, it was sort of a vague, distant threat, you know, no reality to it. And in terms of tsunami preparedness, the services that NOAA NOS provides are extremely important.

Mapping. If we're going to have decent run out predictions, we have to have good coastal mapping.

Tide gauges. You know, observing when tsunamis happen so we can model better.

All of these things. This is a tragedy, obviously, but I wonder if we can make use of it a little bit and point out the importance of Navigational Services in that

kind of text as well?

MEMBER SHINGLEDECKER: I would be interested in seeing, it seems to me that marine spatial planning is obviously a key priority and there are so many facets to that exercise. And it seems to me that Navigation Services could easily get lost in the many layers of marine spatial planning. And it almost seems like there could be almost like a campaign for saying that Navigation Services literally is the foundation of any marine spatial planning and tying it to that broader framework that definitely seems to have legs and seems to going places. And, presumably, there's money going towards that at some point.

CHAIR WELCH: If I could, let me make a comment. David Kennedy alluded to this, and this may be a little bit -- some of our NOAA colleagues may flinch when I say this. But David understated how much political controversy there is about marine

spatial planning. There are key members of the House of Representatives who have said-- the Chair of the Committee that oversees NOAA's ocean programs has said "I'm going to put a stop to this marine spatial planning nonsense."

Now, it is being perceived in a very political way. I don't think it was offered in a political way, but there are people that are responding to it ideologically.

So just because they're opposed to it and are making statements like that doesn't mean it's going to be stopped in its tracks. But there is some risks into jumping on to the marine spatial planning horse. The horse may not go so fast. It might die. And so while you want to make sure you're onboard that horse if it's running around the track, you want to have a contingency plan, too. Because it may be hobbling around that track.

And to the extent if your service

is too identified with marine spatial planning, you get identified with the baggage that it carries as well as the momentum.

So, I'll just -- I'm not myself, you know, saying marine spatial planning is a bad idea. But there are some key people up on Capitol Hill that don't like it one bit. And it remains to be seen. And there's some industries that don't like it one bit. And it remains to be seen whether they're going to be able to throw significant roadblocks or not in its way.

Okay. Who had a comment? Let's go to Michele.

MEMBER DIONNE: Michele Dionne from the Wells NERR in Maine.

Following up on the heightened sort of public awareness from the tsunami, well we certainly people's attention to be focused on the Gulf oil spill. And one of the real sort of limitations to understanding the sort of play out of a hazard like that is

circulation modeling. It's also very important for understanding flood hazards and things. And critical to any good circulation model is bathymetry. And that's certainly something that Navigation Services provides and you don't want to limit it just, so I'm not talking not just about doing what you need to do within your ports for navigation purposes. But we really do need I think in order to prepare our coasts for short term/long term hazards and response to hazards and predictions is really good coastal bathymetry, period.

And I think that we talked a little bit about this at the orientation that maybe just calling it Navigation Services restricts peoples' sort of willingness to listen to what Navigation Services has to say and what they offer.

We talked a little about it, and I think it's been discussed before. Navigation could be navigation and mapping services, or

something like that might help. Just get the ear of people that need to understand what all NOAA is doing within this realm.

CHAIR WELCH: Okay. David?

MEMBER JAY: David Jay, Portland State.

I'd like to second that. That was a really great comment.

Dr. Brigham pointed out that only six percent of the Arctic, I think it was, has been properly mapped and yet if you go to lower 48 estuaries you have excellent mapping in the navigation channel, you know, but you got mapping elsewhere that dates back sometimes a century and is wildly inaccurate and not adequate for circulation modeling or inundation modeling, or many purposes. So we have major shortfalls in mapping all over the lower 48, I'm sure.

CHAIR WELCH: Joyce?

MEMBER MILLER: Back to the tsunami comment earlier. I think that's a

great idea, but I believe I heard somewhere in this budget cycle that at one point somebody had zeroed out the Tsunami Warning Center here in Hawaii. And this was shortly before the Japan tsunami. And I don't recall at what stage of the budget that was. I think this is no longer true. But, I don't know, do any of you know anything about that?

CHAIR WELCH: There was a situation about a year and a half ago where somebody up on Capitol Hill was raising hell about volcano-observing funds about two weeks before the big volcano off in Alaska. And, you know, people have short memories. They don't think anything bad is going to happen, and then something bad happens and they get the religion.

Let me take a minute and I want to read to the new Panel members a letter that I just got. I'm just going to read a couple of selections from it. But this is a very small little item that the Panel was involved with,

but it goes to the point you were making about how can you get people's attention about what these services really do in the real world.

We had a meeting from Providence, Rhode Island about a year ago, a year and a half ago. And we had a gentleman that came in from far northeastern Maine with the pilots up there and he said to the Panel, he said "We had a situation up there where fishermen, we have a lot of commercial fishermen who," he said, "frankly like to take risks." They have to take risks and they're out there trying to compete and catch fish in a tough environment and a limited season. And there has just been a rash of commercial fishing accidents, mainly where it appears that they have snagged uncharted obstacles. And nobody has charted this bay up there because there's not any material commercial shipping there. There's commercial fishing, but not what you and I would consider to be commercial navigation. And people are dying and we need some better

charts.

And he was emotional and emphatic in his presentation, and very effective.

So one of the things the Panel did was that we in our summary letter to Dr. Lubchenco said NOAA needs to deviate a little bit from its policy of concentrating on the area of commercial navigation and see if there's something you can do up in this bay for the fishermen.

And the Panel was not the only entity that was saying the same thing. But the Office of Coast Survey was saying the same thing internally to the NOAA leadership. And one of the Maine Senators was saying.

But here's the letter that we just received from our witness. He said to the Panel members, he says "Shortly after the meeting and within the recommendation that you made to NOAA within one week, NOAA had people from the Navigation Response Team #5 on the water in Cobscook Bay working out of East Port

Maine." It turned out to be an amazing survey effort which lasted into November 2010, six months. And he he named several of the NOAA people individually that were part of this effort, including Captain Lowell.

He said "Conducted a complete survey of the area, worked very hard with public outreach, especially with the fishing community, met with the press on an almost weekly basis, responded to special requests for wreck identification and charting successfully located within centimeters several missing and dangerous wrecks. The information was sent to us in December and the wrecks identified in February. The tidal currents in Cobscook Bay with tidal ranges of between minus 3.2 feet to plus 23.9 feet are very difficult to work surveys in, but the team's expertise and safe boat handling was interesting to observe.

"NOAA responded quickly, enthusiastically and thoroughly to your

Panel's request. The result was a survey, press relations, community outreach and local participation is, we are happy to report, the loss of no fishermen or vessels during the dragging season between October 2010 and April of 2011." And they were losing one or two vessels per year up to that.

"We have no doubt that the work of the Office of Coast Survey and Navigation Response Team #5 both on and off the water was the primary reason for the dragging season's safe outcome. This helped changed for the better the safety philosophy of the fishing community in our area. We could ask for no more."

This is the type of thing that gets people's attention. You can show this to a Senator or a congressman or a governor or an agency head, and this trumps all the statistics in the world about how important Navigation Services, bathymetry or that type of thing is.

So, I just wanted to bring this to the new Panel members' attention. We haven't even had a chance to distribute it to the old Panel members who just came in.

And I'd like to say to all the NOAA folks, Captain Lowell and all your folks, congratulations. This is an excellent testimony to the worth of all the federal employees.

MEMBER JACOBSEN: Great.

CHAIR WELCH: Yes. When a government agency preserves people's lives and livelihoods, that's the purpose of government.

CAPT. LOWELL: Thank you, Ed.

Like I mentioned, a lot of this activity is the presentation package. Captain Peacock was extremely emotional. He talked about the 15 deaths that had occurred there over the last few years both in the community and in U.S. waters. And that was the focus. And although it was on our schedule, it was certainly -- you know myself sitting there

listening to Captain Peacock talk about the issues just kind of raised the priority, so we did respond.

CHAIR WELCH: And the new Panel members, you will see that we've got sprinkled throughout the program over the next three days we have several what we call stakeholder panels, which are people both in and outside of government that use some of these products of Navigation Services. And we on the Panel have found these to be great things because they give us feedback, we learn things that we didn't expect to hear. We've learned how highway road crews for the State of Minnesota used NOAA Navigation Services to plow the snow on highways in Minnesota. You know, I didn't expect to hear something like that.

We learned how the Domino Sugar Company, which is the biggest sugar importer on the East Coast of the U.S. in Baltimore Harbor can save millions of dollars a year or lose billions of dollars a year by shutting

down or not shutting down based on NOAA's water level predictions. And if they shutdown too early, they lose a lot of money. And if they shutdown too late, they suffer a lot of damage.

So, you know, we didn't expect to hear Domino Sugar say that they have been fans of NOAA Navigation Services. And I'm not going to say that everyone of the panelist coming in over the next three days are going to have dramatic statements like that, but you just can't anticipate when one of these panelists is really going to sort of make you think and give you some information that you didn't expect to hear that the Agency needed to hear, and that the people that make decisions about how the Agency should be funded need to know about too.

So we will continued, even as we have these strategic thinking sessions, to try to incorporate opportunities for private sector and public folks, users, traditional

users and non-traditional users to come in and make their observations.

Sherri?

MEMBER HICKMAN: Yes, Sherri Hickman, Houston Pilots.

And I agree. I mean, that's great this letter you just read to us because Captain Peacock was emotional. But we've also done other things.

When we had our meeting in Florida we found out that they depicted a spot that they anchor ships, and the ships were anchoring in coral reef. So they're required to go there. And so I think we helped along with that as well. And that's great.

But I don't know that -- I bet you if we went to every state and had a meeting, we could help with something. And I'm not so sure that that's really what the Panel was for. Because I'm pretty sure if we looked back at our most wanted that most of that has not been really looked at nothing majorly done

with that. And it's kind of disheartening.

So, like, here we have a budget to build a new NOAA vessel. I don't even know if it's running yet, is it?

CAPT. LOWELL: You talking Hassler?

MEMBER HICKMAN: Yes.

CAPT. LOWELL: No.

MEMBER HICKMAN: And yet we decommissioned one, and we don't even have the budget to crew the new one if it was running, because the crew on the other vessel was smaller. And that just seems mind-boggling to me that this wasn't a forethought or a foresight. Of course, if the budget was going to be there, it seems horrible that this boat is not even running with a crew to do surveying.

So I think our picture here is probably bigger. Yes, the local things that we can help with are great. But I bet you that we could do that every time we have a meeting

somewhere.

CHAIR WELCH: And we could. And the purpose of the Panel is not to be an ombudsman, you know, problem-solving. But my point is, if we hear from people like this, we the Panelist get some --

MEMBER HICKMAN: Recognition.

CHAIR WELCH: -- picture of what users think about how well or poorly NOAA may be doing.

And I remember Ronald Reagan's President Reagan's, his closest staff. They said they could go in there and make presentations on policy issues and big picture stuff, charts, and after a short while his eyes would glaze over. But if somebody went in and said, you know, "This is effecting Mrs. Smith in this particular way and it's this program that is going to make a difference," he'd get engaged. And so many of our leaders are like that.

So you need some concrete examples

to give, I think, some heart to what you're talking about. You shouldn't have to, you know. But in our effort to try to promote the big things, Sherri, I think it's useful to have, a few of these examples.

You know, our purpose is not here really to solve these types of problems. But we need to know about these little types of incidents so that we can use them to promote our big picture agenda.

Yes, Lawson?

MEMBER BRIGHAM: Yes. Lawson Brigham from Alaska.

Yes, I agree with Michele that we need -- it would be useful at sometime in the next couple of years to actually have our definition of national navigational services our -- the Panel members with the assistance of the NOAA people. But I think sometimes from government, when I was in the Coast Guard, we get a bureaucratic definition of something when it really didn't fit what the public

thinks it is in the broadest of context. And it would be nice to have a little facilitated discussion amongst us to see how close or how different our view of navigational services is to what the bureaucratic view is. And I don't mean that in the negative sense. So it might be useful.

The thing you brought up in your points about the role of technology, I'm getting a sense on the Hill and particularly when I deal with DHS people, that technology will eliminate the need for ships in the nation's inventory. And I don't buy it. I, of course, work on icebreaker issues. And people are starting to say "Ah, satellites can do it all or autonomous vehicles can do it all." You know, I absolutely don't buy it for the next century.

So in the terms of hydrography and ships for the NOAA fleet, I think we're up against a new phenomena, which is all the high tech stuff can eliminate the need for ships,

except for maybe gray ships, or we outsource to foreign countries or we do all kinds of novel things.

So I think it is an issue. And I think people are going to argue that, "Ah, satellites can do everything or autonomous vehicles," and I think we need to either make the case or not make the case that some small body of a fleet of ships is necessary to carry out science and research on the scene with humans actually doing it to at least correlate with all the satellites' information.

A comment about marine spatial planning in Alaska and integrated use. It isn't necessarily about the commercial world, there's barge traffic, there are large ships into the Red Dog Mine, but most of it is about fishing vessels and offshore development and what that means. So it isn't traditional, in a sense.

And it's also about indigenous use. And so there integrating in the U.S.

Arctic, it's about almost everything but global transport. Although some people think it is, I'll have to try to dispel that tomorrow. So I think marine spatial planning, multiple use management is important there, and Navigation Service is hugely important to all of these other sectors, which we don't necessarily think about. But fisheries, of course, is huge there, as you all know.

Anyway, a couple of comments.

CHAIR WELCH: Joyce?

MEMBER MILLER: Joyce Miller again,

One thing, as I said, I work pretty closely with NOAA and the entire process of loss in statement or discussion of ships being important -- well I'm a surveyor in small launches and multi-beam ships, obviously, I think they're important but I think one of the things that possibly the Panel could make a recommendation on is efficient use of ships. Because this year

there's been discussion of are we laying up one, two, three, four, five ships, are we going to have 135 days per ship, are we going to -- I mean, everything's been on the table. And I just think that if you got ships and you've got crews, having them sit around while the greater NOAA makes some sort of decision of what's going to happen, that's a shameful waste of resources. I mean, it's just -- it's wasteful to have these ships with a full crew on them waiting to go out and having to wait to know whether you've got 136 days or -- I mean, ships used to have what? 210 days of sea time. This year, some of them are down to 130.

And it just seems like that might be a suggestion that the Panel might be able make.

I was hoping that the guy from Maersk would be here and have somebody from NOAA explain how the ship allocation is -- somebody who runs big commercial ships would

just be appalled at what that takes out of the ability to do surveying, really. Not just for Navigation Services but for programs and so forth.

So, I don't know if anybody else has experience with that.

CHAIR WELCH: Okay. Gerd, you were going to say something?

CAPTAIN GLANG: Gerd Glang.

Yes. I should probably talk to you afterwards, Joyce. I have experience with the ship allocation process because we're a witness to it and we try to keep Kennedy involved with it or aware of what's going on. It could be a long conversation.

But the same issues that we deal within the Ocean Service as far as the budget and the appropriation cycle, that affects the fleet just as much where it's tied closely to planning for science missions and then there's a delay in the appropriations and you have to make certain assumptions. And that's how we

wind up with these resources that are under-utilized.

So I think that I like your suggestion, though, and maybe we can put that on our list of things to consider for the Panel to focus on is how we might improve efficiency of the NOAA fleet, because that's sort of the purview we have. But that also echoes what in the National Ocean Policy we have these strategic action plan writing teams for each of those nine priority objectives. And the ninth one, Observations, Mapping and Infrastructure, each of these strategic action plans will have six actions. And that ninth priority objective, one of those six actions has to deal with improving the efficiency or the utilization of the federal fleet. It's the National Oceanographic Fleet or Federal Oceanographic Fleet, of which NOAA is part of. So there's a nice echo there. So that could be the narrow enough theme that the Panel could maybe invest a little time and

understanding and come away with some crisp recommendations to the Administrator.

CHAIR WELCH: Okay. Yes?

MEMBER SHINGLEDECKER: Just kind of back to a little bit what I said before with targeting what we're looking at and our priorities and our needs and marine spatial planning. I guess I could have said that more broadly.

If it's the National Ocean Policy's strategic action plans, it seems maybe looking at -- I mean Sherri alluded there's this great document that the Panel has done in the past of the ten most needed improvements. How do we take that and structure that in a way that it mirrors a vehicle that's moving forward such as those strategic action plans? It's not really sexy and exciting, but if it would maybe move some of these things into actually being implemented, including what you were saying, Joyce, about the use of the federal fleet,

that would seem worthwhile to me

CHAIR WELCH: Okay. Yes, David?

MEMBER JAY: Well, being new on this Panel, I guess I feel I have ignorance to plead so that I can be rash and bring up new ideas.

CHAIR WELCH: Yes.

MEMBER JAY: In a time of contracting budgets, I want to mention a couple of small but different directions that are not much emphasized in previous documents. And they're both based off the idea that NOS or its predecessor organization have almost a century of innovation to look back on and be proud of. So the United States invented the idea that because we have this very long coastline in the 1840s and 1850s and almost no people on it that it was a government responsibility to chart it and do the tides observations rather than just leaving it to the local pilots and sort of thing. So we have, perhaps, the best in the world, despite

our small population, historic tide record.

Now that gets me to point #1. Even though we did a very good job of collecting data, and if we were going to take sea level rise seriously and changing tides and things, we need to resurrect that 19th century data. We actually have a rather poor record compared to the Europeans of getting -- you know our historic data are sitting on the archives. They are not available on the CO-OPS website.

If you go back -- you know, a colleague of mine I think came up with a list of 264 station years of Alaskan tide data alone between 1880 and 1940 that are not on the CO-OPS website. And Steve Gill told him "Well, we started on this project a few years ago and we just didn't have the funding. We lost funding for it so it sat. And so that's one area.

Another is, you know, one of the reasons the U.S. Archives hold the best

collection of world tide data, historic world tide data, is that the tide gauge, there were only two tide predicting machines in the world of circa 1900, one of them in London and one in Washington. And so we did tide predictions for much of the world at that time. And so we have all this data sitting in our archives.

But there's a need to innovate and keep up with where science is on tides.

The traditional thinking about tides is, very briefly, is that this a stationary phenomena, statistically stationary. And what oceanographers are realizing is that a lot of the information that we get out of it and can use is by treating it as actually non-stationary.

And so, tide predictions in the Columbia River, NOAA does them but nobody pays attention to them, the load maxes. I'm sure you heard about this in Portland. The load max is partly done by NOAA, but not NOS. It's run by the port and by the National Weather

Service. And that's partly -- it's an innovation problem in tidal prediction, and that's a particularly difficult one. But there are lots of difficult harbors across the United States that need attention.

New York Harbor, for example. Predictions for New York Harbor are rather poor because of ice, once you get above New York City.

So there's a need for innovation and just analysis and prediction where we could actually be doing -- there is the knowledge out there to do much better then is currently being done.

It's not a huge expenditure, but it certainly would have some utility.

CHAIR WELCH: Okay. Other comments or suggestions?

MEMBER HICKMAN: Sherri Hickman.

Way back when we started this Panel, I know one of the things we brought up was user fees for -- and it kept going round,

and round and round. But I'm going to bring it up again; we'll kick a dead horse, since that other horse might die anyway.

Like when RUDE, for those of you who don't know is a NOAA vessel, survey vessel, when the RUDE is taken off task, two major times it was taken off task; JFK's Junior's plane went down. Somebody correct me if I'm wrong on that. And also the Bow Mariner when she blew up sunk en route from New York to Texas. RUDE was taken off task to do this, and nobody's charged because the government's doing that for free with our tax money. Yet, foreign lawyers for the Bow Mariner collect that information and get it for free, and they're charging big bucks to be the lawyers for that company. We give it to them for free.

RUDE's off task. I don't think anybody was charged to have the Rude off task and do that, collect that information for either incident. I could be wrong. I don't

think they were. The money is just because it was in the budget or we had to change money. The RUDE is off task and not surveying to do that.

And I'm sure there's other areas where this has occurred, not just the two incidents that I'm aware of. And we go round and round about if it's always a financial budget matter, why can't we figure out how to be charging for this when the Coast Guard does it when they rescue people. They charge.

So I don't know if that's a new area or an old area that we need to reopen and look at. I don't know if it's feasible.

MEMBER PERKINS: Mr. Chairman, can I chime in on that?

CHAIR WELCH: Yes, Scott.

MEMBER PERKINS: Scott Perkins with Wilson & Company.

The subject of geospatial user fees has come up in other advocacy groups that I'm involved with. And the fee for service,

fee for rescue model may not be the best, but there are other successful user fee models that have been very successful. If you look at what as gone on with wildlife restoration and the use of a federal duck stamp, for example.

If you look at the use of the federal gas tax and how that has created a sustainable pool of funding for transportation infrastructure-related activity.

And then looking at the opportunity for a geospatial user tax or a Navigation Services tax, you know this is a location-based services is a looming segment of our economy, right? Spatially enabled devices are being sold by the millions every month. So perhaps a recommendation from this panel because Navigation Services is the life blood of what the people in this room are here for, right? Maybe the opportunity is they to start advocating for some sort of location-based geospatial-based user fee at point of

purchase on these devices that would generate one-hundredth of a cent per unit on the commercial side would solve everything that we've whined about all morning on the funding.

CHAIR WELCH: That's a very interesting observation, Scott. I'm familiar, for example, with there are certain types of very small taxes on ammunition, a hunting tax. Ammunition, bows and arrows, and other even fishing tackleboxes.

MEMBER DIONNE: Recreational fishing taxes.

CHAIR WELCH: And those users, for the most part --

MEMBER PERKINS: Are glad to pay.

CHAIR WELCH: -- have embraced the idea. Now, you have to be pretty darn sure the money you're collecting is actually going to be spent on the alleged purpose. Because if you don't, then you have a situation like the Harbor Maintenance Tax. And, in fact, a couple of those fishing programs got enacted

back in the long dark days before now where the money flows automatically without an appropriation by Congress. So in other words, Congress doesn't have to appropriate the money, the money goes into a true trust fund, and it is expended. The days of creating those automatic appropriations are long gone. But it's an interesting concept.

Matt, did you have a comment?

VICE CHAIR WELLSLAGER: I did. Matt Wellslager, South Carolina Geodetic Survey.

Sherri, I agree with you a 100 percent. Taking it from the state's perspective, we have had to reinvent the wheel for the services that we provide. And nothing is free anymore.

My office can no longer provide to farmers, to the counties, to anybody that uses geospatial data anything for free. We have to prove our existence or fund for our existence, and I think when the situation like the RUDE

being taken off line is moving its priorities from one situation to another, that service needs to be subsidized. And how it gets subsidized is going to be a question that we can't actually answer here but needs to be addressed.

And NOAA, NOS, Coastal Geodetic Services; somebody is going to have to, I guess, step up to the plate and say these are the things that we need. It's got the idea of taxes, I'm behind 100 percent. Being a public official, getting that to float is going to be damn near next to impossible.

You know, this new no tax thing. Well, how in the hell are we paying for things if we can't tax something. And I have a hard time with that, but I really think we need to -- and wordsmithing it is 90 percent of the battle. Making it work and having someone that can come up with a way to phrase is correctly would be the way to do that.

But we need to charge if we're

working on something and we're taken off task. When we're taken off task, somebody has to step up and pay that bill. And how we're going to get that done, I don't know. But it's losing money because we're not keeping the focus of what we're trying to do there It's broadening the scope, and we got to kind of tie that scope back.

Good idea, though.

MEMBER MILLER: Joyce Miller.

I have a question. Has NOAA gotten anything back from BP oil spill? I mean, there were numerous ships, numerous scientists. I mean, half of NOAA was down there for a time. And has any of it flown back into --

MR. KENNEDY: Yes. All of the vessels that were down there working on the oil spill and the ones that continue, are, in fact, reimbursed. And that's the good news. The bad news, though, and it does not get to a sustainable solution, is all of those ships

had missions.

MEMBER MILLER: Yes.

MR. KENNEDY: They didn't do any of those missions. Okay. They got money, but they're the same ships that now have a year of lost mission that have to go back and figure out how to do it again; do their mission that they didn't do last year this year, and essentially it's a zero-sum game only it's less then that because those funds that are reimbursed -- well, it's a long, sad story. But, nonetheless we did get reimbursed. But part of the dilemma is that we didn't do the mission we're supposed to be doing. We got money, but we're in no better shape to do the mission with that money. It just offsets some of the other problems we had.

So the idea of some sustainable way to pay for our services beyond just reimbursable in an incidental fashion, I think, is a much better approach in my mind.

CHAIR WELCH: David, does the

Agency have a history or a catalog over a period of time of showing how much and how frequently assets have been taken off their normal mission to respond to some kind of unexpected event?

In other words, is there a way of saying 20 percent of the time we aren't doing what we consider to be our normal mission, or part of it. Do you see what I' saying?

MR. KENNEDY: No, I do see what you're saying. That maybe, Captain Lowell?

CAPT. LOWELL:

John Lowell.

Let me just bring up two quick points.

I think data is available for that kind of an analysis. Nobody's certainly asked me for that, but that's reasonable that someone can look into.

CHAIR WELCH: Would that be a useful thing to have?

CAPT. LOWELL: I would say it

would certainly allow everyone to understand the magnitude of the issue, which is kind of Sherri's point.

But #2 is, you know one of the reasons for our existence is for hazard response.

CHAIR WELCH: Right.

CAPT. LOWELL: And to have that number might validate it. Say, it comes out to 15 percent. I'm making this up. At 15 percent, as historically we expend sources of 15 percent for these activities, then it would be reasonable to assume that should we not exceed that 15 percent, we are on mission at that point. We're not deviating from mission. So hazard response currently is part of our responsibility in the things we do. We would deviate it to NRTs, and I think I'll mention that this afternoon to deal with tsunami issues in California this year. But we consider that part of our normal routine business. So the fact that we would defer a

ship to go, you know Bow Mariner, we'll call that incident, I wouldn't say we were off task at that point, but we were still within our mission envelop.

CHAIR WELCH: Gary?

MEMBER JEFFRESS: Just a question to Dave and John.

I guess that compensation from BP also included the coastal mapping and your time, Dave, when you went down there, et cetera. But then how do you cost that out? How did you come up with a number for that?

MR. KENNEDY: Well, it wouldn't be a number that would stack up if you had to go out and get that in the commercial sector, that's for sure. The vessel has kind of a calculated per day cost, and that's what was used for all of the vessels that were down there. And labor was just straight labor; you know whatever we were being paid, and that wasn't everybody. And I'm not one of them that did get paid. I got to spend most of my

time just being a conductor of the orchestra. But it's just straight labor costs and then whatever our routine ship costs are per day that were charged.

CHAIR WELCH: Yes, Jeff?

MEMBER CAROTHERS: Yes, this Jeff Carothers.

I'm a little bit confused on what George was talking about, you know on the waste of resources with the ships down to 130 days a year or something like that. It seems to me like they're off mission most of the time if there's 200 days they're not out surveying and if they are down, it seems to me like a BP thing is a good thing if they're not being used. Now maybe I'm confused on that.

The other issue I'd like to bring out is another option is, you know if the boats are really down that much time, why did they sit in port? You know, other uses for them. I'm looking for a survey boat that I'm having a hard time locating one. I mean,

would that be an option at some point to make NOAA vessels available to commercial markets?

MR. KENNEDY: That's interesting. You guys ought to try and answer that one. It's more down your --

MEMBER CAROTHERS: Maybe too much red tape, but there may be a need there.

MR. KENNEDY: Yes.

CAPT. LOWELL: Yes, there might actually be some laws that would frown on that.

MR. KENNEDY: Yes.

CAPT. LOWELL: Putting federal vessel in some competitive mode to use.

MR. KENNEDY: Well, yes.

CHAIR WELCH: Well, if I could just make a couple of comments about down time of NOAA vessels.

Part of it is this need for advanced scheduling and advanced planning. And then if Congress doesn't provide the money that fits in with the advance scheduling,

those schedules have to be juggled. And sometimes you lose the opportunity to do actually what you were planning to do. You know if you don't get the money soon enough, you can't send a vessel out on a long distant journey and mission as you were planning. You just don't have that much time or the vessel doesn't have time to get there and get back, or the season is not right. So some of that is not the Agency's fault. They're at the mercy of other people providing the funds.

Also, they make projections in their budgets about fuel. And, you know if they have X amount of money for fuel and the price of fuel has gone up so much, they're going to have to cut back on their projected days of service, unless somebody gives them more money for that fuel.

So there are a number of reasons, some a little bit beyond the Agency's control, as to pushing down that days of service per asset. That doesn't explain everything, but

it is a problem and I know they get frustrated with it.

MEMBER HICKMAN: I had another comment. Sherri Hickman again.

I did receive an email from a previous Panel member that is also a pilot. I don't think it matters if I mention his name, but it's Capt. McGovern. And the issue they're dealing with right now is the right whales. They have areas on the East Coast that have to be -- whose phone was that?

CHAIR WELCH: That's my phone. I think there ought to be $25 fine for a cell phone off that goes right into the Navigation Services --

MEMBER HICKMAN: Where does the money go?

But Andrew is trying to get -- they don't even have that -- I guess it's considered a seasonal managed area. So they're not marked on the charts. They're trying to get them on the ENCs, which with the ECDIS

requirement carriage you would think that would be an optimal way of accomplishing this. Yet, he got word that we don't put SMAs on the chart.

And they're imposing fines now. I'm not even sure who imposes fines. Is that NOAA?

CHAIR WELCH: It's NOAA.

MEMBER HICKMAN: So where does that money go? And is it being collected? Because in a totally different email that I probably don't even have a copy of anymore, but I saw that one vessel has been fined three times with the same captain onboard. They haven't paid the fee.

I mean, normally if we had a fee and they didn't the fine or the fee for our services, we'd have them held. We would have the vessel detained in port until they pay. Now I'm sure our government is going to say well we can't do that, it's a foreign ship, whatever, there's going to be some red tape.

But if they're getting fined and they're not paying it, what's the sense of having it?

In the long run, it's not the fine that we want. We want compliance with the rules so we're not killing the whales to reduce speed. So that's something that we probably want to look at, too, at a local level just like we did with Florida and Maine. But again, it seems like here's another situation where it should be on a chart even if it's on the electronic chart, so that they can comply with the law. And if they're not complying, why aren't they paying the money and why isn't the ship arrested at the dock if they haven't paid the fine?

CHAIR WELCH: And, Sherri, that would fit in with something that Gary put in his document about what we discussed I guess at the Portland meeting, which is what they call the Chart of the Future which would be when you do the electronic charts, how can you put in some ways temporary information, which

is what these seasonal zones are, into current charts that the mariner can use at the time of those special conditions. So that would fit right in to some of the strategic planning document that we're talking about.

MEMBER HICKMAN: Even if we didn't have the ability to turn that seasonable part on or off, it could be noted that this is the season, just like it would be on a paper chart for the mariner.

CHAIR WELCH: Sure.

MEMBER HICKMAN: But, again, I think that's something that seems foolish that it's not being implemented on an electronic chart so that the fines can be collected if they don't comply.

CHAIR WELCH: Michele?

MEMBER DIONNE: I'm not sure if this hasn't already been done, but talking about talking about loss opportunities with down time because of budget issues and such, I'm assuming NOAA has a group of economists

that sort of determine what the value of something like charting a coastline or a port would be. And perhaps, you know if it hasn't already been done, the Navigation Services group could make use of figures that indicated for this much investment, one day of boat time with a NOAA ship will bring X number of dollars in value to our economy, something like that. And if you don't use it and it's sitting in the port, then you're losing that value.

MEMBER PERKINS: Scott Perkins.

I mean, that makes a good point. The return on investment argument is important in all business decisions, but there's a finite amount of money available to pay for services right now.

MEMBER DIONNE: Right.

MEMBER PERKINS: And if there's a limit to what our budget, our deficit and the taxpayers can do. We could make all the return on investment arguments and

justifications we want. It's not going to create a dollar more for revenue that can be appropriated for this mission.

MEMBER DIONNE: Although it might encourage somebody to decide, yes, this is a good place to invest a certain number of NOAA dollars.

MEMBER PERKINS: Yes. Commenting on the chart of the future and the innovation and the winning strategy that was in the State of the Union Address and the seasonal aspect of an electronic nautical chart, you can go to the commercial market space, spend $199 and buy a Garmin GPS that will interface with real-time traffic systems and tell you that there's slow traffic two miles ahead up on the road. But we can't put seasonal information onto electronic nautical charts? Maybe we need to outreach more to the private sector for some innovation.

Your comment, Chairman Welch, earlier about the balance between the private

sector and in-house capability, and maybe the balance has been struck or maybe the battle hasn't been fought yet. The commercial marketplace has solved that for safety of navigation for vehicles. We need to move that to the wet side.

CHAIR WELCH: All right. Gerd, do you have any kind of closing comments on this part of the program?

CAPTAIN GLANG: We had a lot of good ideas here in the last few minutes. So I don't have any per se.

What I'm hoping is that we continue some conversations offline in the next few days. Heard a couple of good ideas that could become sort of focused areas. And if nothing else, they're areas where the Panel could seek more information. We could provide that. Perhaps better understand our fleet allocation process with an aim towards better understanding the efficiency issues. So, it could be just an education role and maybe

something comes out of that.

But, you know there are some other ideas here that in the Myers-Briggs world, an ISTJ way up there in that corner, so it takes me a while to think things through and regurgitate them. But I was going back to what Gary Jeffress mentioned on jobs and the economy. And I think there's an important theme there that we really ought to spend some more time on. I think that's something that resonates all the way up through NOAA and up through Commerce. So we should probably spend a little bit more time on that.

And there may be some areas. So I'll just kind of leave it at that and hope we have a continuing conversation.

CHAIR WELCH: Okay. And Paul Bradley wanted to make a comment.

MR. BRADLEY: Yes, thanks, Ed.

I just wanted to maybe help. I think I'm at the same place in the Myers-Briggs chart as Gary, but I tried to pull some

of this together. And it seems like -- just hearing the discussion, it's been fantastic. A lot of excellent comments. And you guys obviously get the challenges that NOAA and the Navigation Services are dealing with. And it seems like keeping those in mind both at these meetings and also in your day-to-day professional lives it will be tremendously helpful to the Panel and to NOAA.

For example, at the meetings we're going to hear from some great stakeholder panels, and some of them on very specific topics and some of them on bigger picture topics. But taking that information and trying to synthesize it all together in relation to one of these challenges and one of the issues that's address in the Strategic Guidance document is critical. It's important that you need to translate that information for NOAA into this is what you need to do, but also in your day-to-day professional lives keep an eye out for how is NOAA doing on

stakeholder outreach? Are the folks in my professional community understanding the services they provide? Are they hitting the mark in term of those services? What other needs are there? And we can work with the meeting agendas to make sure all those are being addressed.

And then also within the comments it seems like there's some other issues, just as Sherri has mentioned and others. For example, the seasonally managed area, the NOAA ship time, user fees; issues like that where it seems like there might be some benefit to some more extensive conversations and dialogue outside of the time allotment that we have for these semi-annual meetings. It might be worth it to hold some kind of a teleconference or focus group to talk about those issues in more depth if you see some value to that.

So, just a couple of thoughts to keep in mind, but I think it's been a great conversation so far.

CHAIR WELCH: Okay. Very good.

Yes, I'm going to have Captain Lowell wrap up this morning.

CAPT. LOWELL: I just want to take a moment to acknowledge a co-workers involved in this strategic discussion we've been have here.

Most of you know Roger Parsons, who's a very good friend and a co-worker over the last, it's maybe 38 years I believe he was in government service. And many of you have worked with him in the past, and we're very sorry to see him leave. But he was instrumental in putting this document together. I would recommend that if you haven't read it, it has some of these similar issues that we just talked about on here. It's not meant to be all inclusive. It's not meant to say that these are the things you need to focus on, but I think we've discussed a lot of the directions we want to head. And I just wanted to acknowledge Roger's involvement in

this. So thank you.

CHAIR WELCH: Okay. Thank you.

And we will, those of us who worked with Roger and knew him as a colleague and a friend are very sadden by his passing. And we send our sympathies to all of his NOAA colleagues that worked with him for so long.

Are administrative things that we need to talk about right now, Kathy?

MS. WATSON: No. Lunch is ready.

We do have the dinner schedule for the Hau Tree Lanai, but I wanted to try to get an head count of how many people are planning to go down there. We can do that later this afternoon at the break.

CHAIR WELCH: And my understanding, of course, is that we would all be paying for our share of that dinner, is that correct?

MS. WATSON: Yes.

CHAIR WELCH: Okay. Just so everybody knows.

Virginia?

MS. DENTLER: Could anybody from Pacific Navigation Services Stakeholder Panel is here, if they want to give me their presentation, I'll see them at lunch.

CHAIR WELCH: Okay. And just a reminder to all of our guests, first, thanks for coming. And if you didn't sign in to our guest sheet, if you would do so, we would very much appreciate that.

So lunch is here in this room, Kathy? It's a buffet lunch.

And I guess, as always, the Panel members and the NOAA Agency folks for whom the lunch is intended, but I guess if we have guests and you might want to make sure that the official folks get their food, then you're welcome to the scraps.

Okay. We will reconvene at 1:00.

(Whereupon, the above-entitled matter went off the record at 12:10 p.m. and resumed at 1:04 p.m.)

A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

1:04 p.m.

CHAIR WELCH: Okay. Good afternoon, everyone. Let's reconvene our Hydrographic Services Review Panel.

And what our plans for this afternoon is, is we will receive some reports from the three line agencies within NOAA and within the National Ocean Service that do navigation services. And then after a short break we will hear from our first users panel.

So welcome to our members of the public that are here for our users panel, and we will be with you in the not too far distant future. But our first presentation will be made by our government folks. So, Captain Lowell, are you going first or what order are we going to do?

CAPT. LOWELL: I think so.

CHAIR WELCH: Okay.

CAPT. LOWELL: Thank you, Ed.

As Ed said, this will be an update

of all three offices that I put together, try to catch everyone up on where we're at and what big ticket issues we've been working on and a quick snapshot of the budget environment as of a couple of days ago.

Okay. First off, we're going to cover a couple of recent accomplishments --

CHAIR WELCH: Captain, do all the new Panelists know what each of the three line agencies are?

CAPT. LOWELL: I think so.

CHAIR WELCH: Okay. I'm just wondering if it might be worth a 60 second summary.

CAPT. LOWELL: A 60 second summary?

Office of Coast Survey. Office of Coast Survey is primarily responsible for the hydrographic and bathymetric data collection within the U.S. territorial waters, the exception to that being in authorized channels which the U.S. Army of Corps of Engineers

provide us data to update the nautical charts.

The second component of what we do is our premium -- these are our charts that we create and are 1,000 meter charts, 800 plus ENC at this point.

A part of our services, of course, is maritime customers. We also have a lab, of course on technology issues that will be surface vessels and modeling physical oceanographics and policy.

So that's a what we do.

CHAIR WELCH: Well, good. So thank you.

CAPT. LOWELL: Okay. Because we intend these presentations as kind of a background, so that's probably a good idea.

So, getting back to the presentations, the recent accomplishments. As everyone knows there was a big earthquake out in Japan that generated a tsunami, major damage on the Japanese islands. And there was a considerable activity at NOAA for the next

12 to 24 hours to track the projected tsunami where it's going to hit landfall, including Hawaii. We've discussed a little of that here, but it also reached the West Coast and certain harbors in the West Coast seemed to be more prone to the tsunami damage. And the two that took a lot of damage on the West Coast was Crescent City, which has been hit by tsunamis before and Santa Cruz. And generally in a response- type environment is that NOAA and the other federal agencies coordinated very closely together generally with a Navigation Manager in the region. They look at assets available to open up these harbors again. In this case this is the kind of thing we would do. And we deployed appropriate assets, whether it be ships or contractors, or in this case we have NRTs or navigational response teams and one of their primary functions is response to hazards.

And we happened to have one team down in San Fran, San Francisco doing routine

hydrographic work, they deployed up to Crescent City.

We had another one working out of Takoma, Washington, another team, hydrographic surveys. And they went down to Santa Cruz. This is a picture of some of the damage there.

And in these environments the key is to detect submerged objects and get the port open as quick as possible, pretty much to not only start the mitigation phase of the repair, but also to allow any remaining vessels that are capable of continuing whatever work they were doing, such as the fishing industry, as you'd open this up to continue to allow the fishing industry to open up. In this case, they needed to bring in barges to start lifting a lot of these wrecks where they turned into very damaged boats out of the water.

So we were on-site within, I think, around two days of the tsunami reaching these two ports.

Next slide.

CHAIR WELCH: John, there traditionally are two navigation response teams on the Pacific Coast?

CAPT. LOWELL: Well, they do move around but there's typically two of them out there. We typically have one in the Great Lakes, although I believe we're bring that down to Houston next year when the weather gets really bad up on the Lakes. And we have several more in the Gulf on the East Coast. We have six altogether.

CHAIR WELCH: And do I remember correctly that there were some large envelop of locating one in Alaska eventually?

CAPT. LOWELL: That's currently not on the schedule. Alaska would be a whole lot more difficult. Not that we couldn't do a small team up there, but moving them around. We typically rely on both infrastructure and the roads, of course. A lot of that is natural up in Alaska with the RVs around. It

isn't saying we couldn't do something like that, but it would be a difficult --

CHAIR WELCH: Okay. I'm just remembering. Okay.

CAPT. LOWELL: Recently we've had several Arctic-type issues up there. This was just another one that everyone probably remembers the Selendang Ayu, which was a vessel that lost power north of the Aleutian Chain up in the Bering Sea. It was blown down on the rocks, broke in half, spilled quite a bit of oil.

So there was another similar event here recently, December 3rd, where the M/V Golden Sea lost propulsion, very similar to what happened to the Selendang Ayu. But it's a very similar incident and we watched it. Eventually they did get the vessel going and it moved out of harm's way.

But usually in these type of response activities is we're there to provide support and let everybody know how it is NOAA

can help the response effort. In this case, you know, we'd be contacting the Weather Service and other areas to watch where the vessel may go and how to respond to it.

Next slide.

This particular thing, obviously we responded last year to the Deepwater event. Oil spill response or disaster preparedness in general, I'll make this a little more general than an oil spill, is something we're heavily involved in both with our nav managers and with our NRTs and other assets. And that they do considerable coordination and training in conjunction with other federal agencies, specifically the Coast Guard, with state and local agencies that would be involved in disaster management.

And in this particular case this is an example of a planned Marathon Oil spill exercise in New Orleans and Tampa. And actually, I think Kyle was involved with the diver training off Hawaii's coast.

And that's kind of lighter, but it's an offloading to get oil to the island.

Next slide, please.

You know we in the discussion this morning talked about other uses and users of our data. We do collect a lot of hydrographic data specifically for the purpose of safety in navigation; that's our mandate. But when we can we also take the expertise that we build doing that and help other organizations both within NOS and within NOAA and even broader then that with data collection that they may have. And a good example of that will be the NCCOS, which is a sister agency of NOS or sister office with NOS, had some benthic habitat mapping or coral reef mapping they were involved in off of St. Thomas/St. John. And we provided several hydrographers out there to operate the equipment and ensure that we were collecting not only good and backscattered type data for their habitat work, but also get involved in navigational

bathymetry that then we could then apply to the proper chart. So it's a good example of it wasn't our project, but we helped out in a way so that we leveraged that particular data collection asset so we got good quality bathymetric data.

Next please.

I might not going to go through all these. These are pretty much the areas we've been operating recently.

If you hit the button, I think there's going to be a few that slide out.

We've talked about the Arctic here. Recently the Arctic as the ice recedes there's more and more erosion on the shore and some of the villages are at risk. So the nav manager up there is helping relocate -- one of the parts involved in the relocation of one of the villages.

Dave Kennedy referenced earlier, we had to draft an Arctic charting plan up there which correlates pretty much all the

information from the Navigation Services. And anybody who wants to get a copy of that, there's links on our website. And anybody who has comments can start sending them in.

It's hard to say when the charting plans will be final. What it means is we'll just complete our comment selection, we'll set a charting and a hydrographic data collection plan based on our expected resources. And then from there we'll just simply modify the time that the data's resources go up or down. But at least we've set the stage for where we want to go with our products and services up in the Arctic.

The wreck found in Cobscook, the letter from Captain Peacock that has been referenced before. We found several of the sunken fishing vessels and generally there's a bit of a time lag, but they'll the local police and local divers on it and, of course, the dead bodies off the vessels. And that's been ongoing. I think the last one was found

about two months ago. So that project's now complete. We've done the entire Cobscook. And it's just a matter of them diving to all the objectives and confirming whether they are the lost vessels and/or any bodies that may still be down there.

There's some local work on the coal ships. I think that's at Norfolk.

Bathy data to aid Mississippi restoration and bathy data to aid the recovery of the Gulf of Mexico for recreational fishing. Obviously, there's a lot of effort in the Gulf right now. And we're just playing our part there, we're certainly not the lead agency on that. But we're using the knowledge, skills, ability of Coast Survey where appropriate to help out to enable that effort.

Next slide, please.

Future outlook for FY '12. Even in this tight budget environment we felt it was important to have a continued presence in

the Arctic. We've scheduled in fair weather to do a survey in '10 Bering Straits area, to continue to operate up there. Consequently, we have high a critical area and we directed them to continue the operations up there.

We also leveraged some other activities with VDatum, so we're balancing some tide gauge work up there to support that effort.

Either Tom or Sherri mentioned the Hassler. Without going into a whole lot of details, there was some contractual issues with the Hassler. They didn't meet the statement of work and they terminated the contract abruptly with the ship builder and they towed it out of there under the protection of Marshals, and which meant that NOAA had a 95 percent completed vessel. NOAA shipyard had a ship in the Arctic and nobody to work on it.

And so they then actively try and put it back together with the remaining funds

that they didn't make. And right now as of last week they've gotten underway several times and working on their Coast Guard certificates and their NDIS certification. So they have scheduled 30 days this year. We have negotiated with OMAO to try to get an additional 30 days over a two month period, which means, again fully realizing we're going to have a whole lot of new ship startup issues, we don't want to get too far from home. We do expect to get some data out of that vessel this year.

I didn't bring any of the actual charts, but the actual data holdings are going down and the amount of time it takes us from the completion of the survey to the delivery on the nautical chart to the end user is decreasing as we speak. We have a nominal goal of 50 surveys in inventory with most surveys coming in in less then 120 days, and more appropriate in and out below 90 days for delivery of the products.

Particularly to support IOCM initiatives. Just mention several of the examples of that because we are actively looking for IOCM participation. And where other people are surveying, we want to know about it and we want to get involved with them to either increase our involvement with the survey or if we're in that area, expand that area if we can for nominal cost to add value to the data collection we're already updating.

Implementation of the R2R. R2R is Rolling Deck to Repository efforts, and that goes across NOAA vessels. We, as with the UNOLS actually has a similar program to this where a lot of scientists go out, they collect their data. They park the vessel with their data and then nobody sees it again for years and years and years, maybe. The inference is the infamous data disappeared in someone's drawer. Both UNOLS which is the university vessels and NOAA have identified this as a serious problem. You know, government is

typically attached there to pay for the cruises and they do acknowledge that the window of opportunity for the control and release of that data to allow the science to occur but have some known time frame of this data to be released to the archive or the NGDC for public availability. And when we're doing that, is of course we're allowing the scientists take it off but there's a direct link from NGDC to the vessels who collect the data because NGDC has specific control or release of that data for a period of time.

You're going to ask me what that time is, but I can't tell you.

MEMBER DIONNE: So the data actually -- they're not required to copy data over to NGDC before they leave? It has to be reviewed later or --

CAPT. LOWELL: No. We will do that for them. The R2R effort means that we don't have to walk on ship. We only copy the data.

Typically there's a clause in the grant or whatever their funding mechanism is that you shall share the data upon completion of it. It doesn't always work.

Finalize the strategic action plan for the mapping component of the National Ocean Policy. Captain Glang talked a little bit about these strategic action plans and that's pretty much how we're going to implement the various nine priority check list that talked about national policy. And this particular one, I believe, is the ninth one, which is the infrastructure to the national policy. And once that's ready for -- we can distribute that, the action plan, once it's ready, right?

CAPT. GLANG: Yes. There's actually a public comment period to the strategic action plans that's coming up soon.

CAPT. LOWELL: So once we get that, you can get them. Actually, any of the nine should be listed.

Next slide, please.

Some of the parts of my job are not overly fun. Had several visits up to the Hill for different reasons, not all of them were pretty.

One, a committee that we have never really dealt with before, the House Committee on Oversight and Government Reform. It's a committee that looks for efficiency in the government, you know for production of duplication, that type of thing.

It was noted that there are two agencies in government that create nautical charts. One is DoD NGA, National Geospatial Agency who created DNCs, which is a military version of a -- that's not quite right. It's a digital nautical chart but it's a different format then the commercial ENC that the Coast Guard -- most of the non-DoD people are familiar with ENCs.

There's also a different suite of paper charts. NOAA creates paper charts for

all the U.S. waters, NGA creates paper charts for the rest of the world. And NGA's customer, of course, is the U.S. Navy. NOAA's customer is everybody else. Well, the U.S. Navy does use NOAA products in U.S. territorial waters.

They noted that that seemed to be a duplication of effort and both NGA and NOAA have gone now to talk to this Committee to explain to them what these products are, who the customers are and whether any duplication exists. And there's no duplication there. They're are different -- there's a multitude of different customers. And NGA's intent is in the next generation of ENC, which is coming out approximately in the middle year and probably converted over to the next generation ENC. I would say between three and five years now we'll start that process. And when that occurs, NGA will be working with Navy. I do know the Office of Navy users in fact, Navy will shift their DNC product to an ENC

product. But that's a DoD decision.

MEMBER MILLER: Was there any discussion of the sort of duplication of survey capabilities between NAVOCEANO that doesn't oversee NOAA, Army Corps, et cetera?

CAPT. LOWELL: They were almost a 100 percent focused on the charting product. We did mention that we have managed for U.S. territorial waters the survey and we create products for that. And NGA they don't collect it --

MEMBER MILLER: There has been some in Saipan, out in the Western Pacific. There has been some overlap between NAVO and NOAA.

CAPT. LOWELL: Not so much overlap as we're aware of all the activities they're doing.

MEMBER MILLER: Yes.

CAPT. LOWELL: And we, obviously, share our survey plans with Navy. And we do control that fairly well. And I think the

only time that we would overlap would be is that we're trying to confirm the use of LIDR.

MEMBER MILLER: Yes.

CAPT. LOWELL: Anyway, that's just a little exciting --

CHAIR WELCH: Well, do you have any perception of the staff's view of things after they received the briefing?

CAPT. LOWELL: I think they were focused. In their view there seems to be considerable duplication even though both NGA and NOAA feel there is no duplication; there's no duplication of customers, there's no duplication products but they're pretty much on -- I don't know how to explain that.

MEMBER BRIGHAM: Yes, but my question is do you know the order of magnitude between the different budget amounts spent by NGA and NAVOCEANO and you all?

CAPT. LOWELL: No. I really don't know all that. I know what we spent, but I have no idea what Navy spends.

MEMBER BRIGHAM: It would seem that, you know DoD is going to be asked to cut. And they're not going to cut probably aircraft carriers and submarines, but attendant programs like NGA and NAVOCEANO are good targets. So I wonder if any of those responsibilities might in the next 30 years transfer over to NOAA?

CAPT. LOWELL: Well, that was not discussed in a real way. And as I mentioned, they were not approached at all on the data acquisition side.

MEMBER BRIGHAM: Yes.

CAPT. LOWELL: When we talk about it, we defer to them whether we were together, they were focused on the products. I mean it is just an example of the kinds of things that we work on, unfortunately too often.

Next slide, please.

Linking back to the -- oh no, this continues on. Okay. I don't even know how to apply a lot of these slides in here.

Within NOAA, it wasn't really discussed earlier today, but as part of this effort of reducing duplication, there is within DoC an attempt to cut back on some perceived duplication of Commerce activities. And we do believe NOAA is getting a bit caught up in that. There have been some comments that would seem to indicate overlap in things like management of fish stocks. I'm not sure any of that is true. I don't work for Fisheries. But I don't believe that National Marine Fisheries and Fish and Wildlife Service have much overlap at all. But there is an attempt to kind of try to better align Commerce entities more with the Commerce side of the house and less on the environmental side of the house.

So I don't really have a lot to say about that other than it's on both.

Next slide.

CHAIR WELCH: John, go back to that quote. This quote is from the document

produced by whom?

MR. BRADLEY: The Center for American Progress. It's a report that they put together.

CHAIR WELCH: What is the Center for American Progress?

MR. BRADLEY: I can tell you it's a nonprofit organization. I don't know much more about the reason for generating the report, although the reason that we took a look at it is, I guess, is just referring to it as they look at government structure and whether there appears some good reasons for reorganizing it.

CHAIR WELCH: Well didn't the State of the Union say something about salmon were regulated by seven different agencies?

MR. BRADLEY: Yes. That's a comment describing some interests from folks that depending on whether they're swimming in fresh water, salt water or sitting on your plate there's some controversy.

CHAIR WELCH: All right.

CAPT. LOWELL: All right. Next slide, please.

This is the budget slide. I think this is almost the last one. It gives everybody an idea of what we actually had in FY '10. And if you just focus on the bottom line, as you can see it went from 94,800 to 93,200.

The FY '12 estimate in the President's budget that is floating around, don't think that 96,400 is really going to be real at all. I think the starting number will be the FY `11 when it comes on. That's not the actual number that was annualized, the CR number.

Next slide.

The metrics that we've done is as of October we did 43,000 square nautical miles of hydro data. That includes a lot of ARRA-funded activities. Added 72 ENCs in 2010 and 2011.

In '11 we started the year. We've gotten about 700 miles of hydro done. The actual projected number is really based on sea data. I don't know if we can get all our contracts out the door at this point due to the delay in the budget. And then, of course, we got an additional 27 ENCs. We're up to about, just shy of 900 ENCs in production at this point.

CHAIR WELCH: So your bottom, the second line is basically an effort to take the data that you've already gotten on paper charts and put it in electronic format. Correct it?

CAPT. LOWELL: Exactly.

CHAIR WELCH: And then make that -- okay.

CAPT. LOWELL: Yes.

CHAIR WELCH: So your goal is within the foreseeable future held electronic equivalence of a 1,000 of your paper charts?

CAPT. LOWELL: I would say yes,

but a caveat to that is we do have paper charts that no solo vessel would ever sail on. You've heard of these new charts, literally they're in such shallow areas that no vessel would ever be in there. Our intent is not really to create ENCs from certain charting processes that don't make sense.

Next slide.

And that's it.

CHAIR WELCH: Gary?

MEMBER JEFFRESS: I had a question.

MEMBER JEFFRESS: The Deepwater Horizon spill, discussing that with geochemical oceanographers, if there's such a thing, with regards to chemical analysis of the ocean and marine biologists. The question is: Where did the oil go? Because not all of that washed up on the beaches.

And I know the Thomas Jefferson was deployed to do a lot high depth sign, right? I was wondering if anyone's looked at

the raw data from the bathymetry and see if there's not a signature in there that would tell you but is there a water hole?

CAPT. LOWELL: Well, when the TJ and actually some other NOAA ships deployed, we put hydroacoustic experts on them to operate the systems. And the one thing they could determine was is they could easily see these using their systems. I don't have any of those graphics here. Dr. Mayer, who is really not a member of this Panel who is not here did a considerable amount of work on that.

I will say that they didn't see oil in the water column itself, but they could see indications that there was some sort of an hydrocarbon there, and they confirmed that using the CTD-type casts and barometers to detect the oil. And they would have these bottom volume reflectors of some form. And they also could look at things like the scattering layer, which not so much because the scattering was there, because there was an

absence of scattering material which for some reason all these critters moved out of the way. So the expectation is that there was oil there. So a lot of that was going on back for Deepwater.

MEMBER JEFFRESS: And I assume that's going to be published at some stage?

CAPT. LOWELL: I would guess so. You know, there's nothing but lawsuits going on right now. There's going to be science reports coming out. As to how often or how frequent that's going to happen, the entire iterative process is underway.

MEMBER JEFFRESS: Thank you.

CAPT. LOWELL: I guess that'll be a couple of years before that all straightens itself outside. It could be decades before that straightens itself out.

CHAIR WELCH: We're not having an unlimited time on questions. But, David, why don't you go ahead.

MEMBER JAY: One quick one. AIS

did an identification system that would give you some objective way of mapping where your customers are basically --

CAPT. LOWELL: Actually, we do have a project undergoing right now or underway right now that looks at the AIS data. A lot of vessels are in the vessel track separation schemes or the fairways as expected. But what's turning up is, of course, is where else can they go. And there's definitely certainly areas and certain shore cuts that vessels are taking, and then we have a group trying to analyze that in termination against and how old is the data, and what kind of risk is in the areas and to help us prioritize us area.

I won't say it's complete yet, but we'll get it into.

CHAIR WELCH: Okay. Thank you, John.

Let's move on to the National Geodetic Survey and our Director Juliana

Blackwell.

Juliana?

MS. BLACKWELL: Thank you, Ed.

Okay. So the National Geodetic Survey is the second office in this nav services triumvirate. And for those of you who have been on the Panel you've heard the geodesy 101 and the GRAV-D, and I don't have time to go into a lot of details, but I'll just briefly say a few things about geodesy and the history of the National Geodetic Survey to put this into perspective.

Geodesy is the study of the shape and size of the earth. The National Geodetic Survey is primarily working on the dry side of the charting and the framework for the nation for a National Spatial Reference System.

In 1807 Thomas Jefferson realized right off the bat we needed to be able to map and chart our new nation. And so he created the survey of the coast which over the years has changed names. It was known as the U.S.

Coast and Geodetic Survey for a long time, and so therefore you have the three offices here today, Coast Survey, Geodetic Survey and CO-OPS who are the basic components of the coastal and surveying effort. So while we have separate program offices, we definitely need to work hand-in-hand in creation of our charts.

The National Geodetic Survey has another mandate as part of this and in addition to this, to define, maintain, and provide access to the National Spatial Reference System, the NSRS. And what that is is the framework of which all mapping efforts should be based on within our country.

The NSRS in the past has been comprised of a lot of survey benchmarks that you all have probably seen out in the ground somewhere. The fact that these have been surveyed and positioned to accuracies better than anybody else can do it has been our mission for the last 200 plus years. As the

nation grew, obviously the need for connecting the coast -- from one coast to the other and border-to-border was the responsibility of what is now the National Geodetic Survey.

So things like latitude and longitude, elevation, gravity information, the shoreline; those are all things that are under our purview to define and provide to the country. So just to set the stage a little bit for some of the other things we'll be talking about over the next several years as part of this Panel. But the purpose of this is a brief update on things that we recently accomplished and things that we are planning to accomplish in the near future to give the panel members an update on some of the activities related to the most wanted improvements as defined by the reports, and the latest one being the 2010 report.

So let's get into the next slide.

So just to set the stage here, some of the performance measures that the

National Geodetic Survey has been operating under could be categorized under some of the most wanted improvements, that being disseminating our data and products to achieve the greatest public benefit. And one of our GPRA or Government Performance and Results Act measures is to provide a goal for the percentage of U.S. counties that are enabled with accurate positioning capacity. So basically areas that have been surveyed or have survey information in our database where the people re accessing that information count towards this goal.

The second one being under modernizing heights, which is almost a most wanted improvement, is a new GPRA measure that's going to be in effect in 2013. It will be stated something such as the percent of U.S. that's enabled to benefit from a new national vertical reference system. And I don't have time to go into a lot of that, but you'll see as things are discussed with GRAV-D

and the importance of elevation information, you'll see how that fits together and how that is going to be the next 10 to 12 year goal for the National Geodetic Survey.

And lastly, the one that probably most Panel members are aware of is aggressively map the nation's shorelines. And the National Geodetic Survey under that improvement is responsible for updating the U.S. shoreline and updating the shoreline in priority ports and also analyzing priority ports for changes. This is something we do on a yearly basis.

Next.

So the joint milestones that we have between the three offices here as nav services, I just want to highlight a few of those. One is the expansion of the national VDatum program. Again, we don't have a lot of time to go into details here, but the information is available on the website about VDatum being able to translate from geodetic

to tidal datums based on the models that have been provided. NGS is currently the lead program manager for this effort, but the Coast Survey, CO-OPS and NGS effort to provide models for different regions of the country.

The latest model that's been released has been the model around Texas. The last model for the contiguous U.S. will be the New England model, and that is to be released by the end of June. So we are making progress in the VDatum product that we've been working over the past several years. And we'll talk about future updates later.

The other joint milestones I want to mention quickly are working together to provide new guidelines for geospatial infrastructure for monitoring coastal and environmental change at sentinel sites and other coastal reserves. So focusing our efforts more on not just the nautical chart products and navigation, but what's happening at the coast and the importance for

bathymetric and topographic and geodetic and tidal information along the coast for other reasons.

And lastly, working with the other offices, in particular CO-OPS to co-locate our three continuously operating reference stations at tide and water level stations so that you can have that very accurate tie between what's happening with the water levels in relationship to what's happening on land. So in other words, to be able to determine whether or not a change is taking place in sea level over time or if a change is taking place on land; that there's signs of uplift and being able to tease out the differences between those changes. You need to have a land reference system as well as your water level references to establish it.

Next.

Recent accomplishments that I'll cover in the next four slides are highlighted here, one being, as I talked about our first

GPRA measure, being able to provide data to people about survey marks that have been surveyed at a highly accurate, highly precise way. Be able to take that data and provide it to the public as well as enable users to send in their data and get their results without having the National Geodetic Survey actually perform the survey work or manually have to do the processing or adjustment.

We have a online positioning user service which has been in place for several years now. But what we have improved upon is allowing users to submit their data, not only get an answer back about the latitude and longitude and elevation of their point relative to our CORS network, but also to be able to say I'd like to share my information with the rest of the public. I will provide all the other detailed information you need so now other surveyors or GIS individuals, or anybody who is interested in that data can now go on our website and see some of these other

positions that have been surveyed by non-NGS folks and shared and updated over time.

The second bullet here is collected -- we've collected emergency response imagery in the Red River area. That's Minnesota and North Dakota flooding that's been in the news.

While this is a emergency response that we've done for things such as hurricanes and other natural disasters, certainly with this flooding episode having the aerial imagery collected and accessible for response efforts, but primarily for validating hydrological models and forecasts. This data has been really helpful to be able to say we predicted this, we've taken pictures of it, this is exactly what or not what we expected to happen in these areas based on the amount of water that's been calculated.

Another emergency response that I don't have up here because I didn't update my slides over the past couple of days and,

Virginia, I don't know if you can transition to that easily, is the collection of imagery in the Tuscaloosa area. So the National Geodetic Survey finished their airborne imagery collection in Minnesota and North Dakota area in transit back to their -- getting back to their work that they had planned to do, did some aerial imagery collection in the Alabama/Mississippi area to capture the damage from all the recent tornado activity. This was done in conjunction and request from the National Weather Service, one of our other parts of NOAA that we want to be able to work collaboratively with, to be able to identify where the tornados have been and measure and map that.

Also, in areas where their radars were down, this has provided a lot of useful information so that they can measure the length that the tornados and the path.

Let's go back to the slides.

This data is available in the

public domain. It's not up on the NGS website right now, but is probably something that we need accessible soon via our website.

Next slide.

Recent accomplishments continued. Mobile Bay project. Again a tri-office effort, a multi-year effort in Mobile Bay area to establish foundational data and help to calibrate or validate coastal circulation models. So something again that I think Michele had mentioned earlier was being able to use our data, use our information and to not necessarily just for navigation purposes but for other uses as well. So this, again, is a multi-year three office effort to focus on the Mobile Bay area to provide more information with our partners at the NERRS and other entities within Mobile Bay.

The second bullet is talking about our cooperative effort with the U.S. Geological Survey and the Harris-Galveston Subsidence District. In an area that is prone

to subsidence and has ground water withdrawal management concerns, it's important to be able to monitor what's happening at the surface of the land, but also what's happening underneath there. So we've worked collaboratively to establish a new CORS station at a specific site in the Houston area to provide better monitoring capabilities in that location.

Next.

NGS has also initiated a socioeconomic benefit study of our remote sensing products and services. This falls under what we were also talking about this morning of being able to put some economic value on the products and services and data that we provide.

The National Geodetic Survey did a scoping study on the National Spatial Reference System, our CORS program, 2009/2010 time frame. And there are some handouts in the back of the room here that go into a lot more detail about this. But basically

recognizing the need to be able to sell the value of what we provide to the Hill, to our public sector, to our other federal agencies. The scoping study has been very helpful for NGS in being able to value our products and services.

The National Spatial Reference System alone has been valued at more than $2.4 billion in potential annual benefits to the U.S. economy. And that's a big number, and it encompasses a lot of things. But if you break that down into a little bit more manageable piece, the actual CORS network, of which there are over 1600 continuously operating reference stations, that we collected by access to that data is valued at an estimated $758 million per year in benefits to the country.

Another program, the GRAV-D project, which I'll mention here again, is also something that has been scoped out as being able to provide an estimated $522 million per year estimated generated once we

implement a new vertical reference system based on our GRAV-D project.

The second bullet is our remote sensing capability, our recent accomplishment being that we were able to recently finish a procurement of an airborne LIDAR system. This is to be used for the research and development of new procedures. Again, trying to find better techniques and efficiencies in the way data is collected and utilized for things like shoreline mapping and airport surveys, which is also something the National Geodetic Survey is involved with in conjunction with the FAA.

So, again, not for a necessarily production mode, but for a developmental mode this LIDAR is going to be able to give us a new technology to work with at our disposal.

Next.

GRAV-D is the Gravity for the Redefinition of the American Vertical Datum. It is primarily an airborne gravity collection project which will then at the completion be

able to be used as the basis for a gravimetric geoid and a new vertical system for determining elevations. And it's way too complicated to get into right now, but you'll hearing more from me about GRAV-D.

The focus has been on collecting data in Alaska, and the areas in black are where the data has already been collected. The areas that you see in green are currently being collected on one of the NOAA P-3 planes that we have. The northern part of Alaska is being flown as we speak, and the other green area will be collected hopefully by the end of this fiscal year.

There are plans to complete all but the Aleutian part of the Alaska territory by the end of FY '12.

Also in conjunction with this it's important to be able to measure land-based gravity measurements to validate these models. And so we have procured a new absolute gravimeter that will enable us to do this more

efficiently.

And the last bullet here, I have new horizontal time dependent positioning model. Again, just a new release of improved information available to our users.

Next.

Upcoming activities. Some of our milestones for this year. When I say "install one NOAA foundational core site," this is of the 1600 stations I mentioned earlier, NOAA owns about 60 of them. And these are typically in places that support other NOAA functions, not necessarily those of the National Geodetic Survey. We are going to actually establish a site that's geodetically needed to complete our NSRS.

The second bullet here, complete GPS positions for the International Great Lakes Datum of 2015 update. And I can talk about that more offline since I'm sure I'm out of time or about out of time.

Next.

Other upcoming activities. Some I mentioned earlier this morning. I believe working with Homeland Security or other efforts in emergency response. But in a sense an emergency response effort, we've been asked by DHS to partner with them in being able to provide notices about GPS interference detection based on our CORS network. We are currently working with them through an agreement and reimbursement for some of this work so that we would provide them notification if we saw something strange happening with our GPS data that we're collecting. And that would feed into what they're doing with GPS interference detection.

Complete our socioeconomic study on the remote sensing products and services, realizing that this project takes a while to get started and to get the final report done, which will be done by a contractor. Our goal is to have it done by the end of FY '12.

And I mentioned this already,

completing Alaska with the exception of the Aleutians by the end of next fiscal year. And also completing our VDatum models for Puerto Rico and the Virgin Islands. That's another goal that we have in the next year and a half.

And the last one is provide NOAA composite shoreline as a framework data set for Coastal Marine and Spatial Planning Data portal.

Next.

So here are the performance metrics that I started out with, and just a snapshot of what we completed in FY '10, what our goals are for FY '11 and those that are targets for FY '12. Again, FY '12 is going to be a little bit budget-dependent on the bottom three because they are all based on the mapping and charting budget line that we get through our offices.

So the second one here is the GRAV-D, new GPRA, and currently we are on schedule to complete 13 percent of the area

for GRAV-D by the end of this fiscal year. And next year's goal is at 20 percent. Again, that's budget dependent.

Next.

And there's a snapshot of our NGS budget for last year and this year's tentative budget. Again, this year and next year are subject to change. But as you can see, similar to what Captain Lowell mentioned for Coast Survey, there's been a small decline, a decrease in this year's budget, FY '11, overall, and FY '12 is looking like it will probably not remain at that level that I have here on the slide. But keep our fingers crossed.

Geodesy base, that's the big chunk of our budget. The National Height Modernization program, we do get appropriated funds for that. This year we did not receive any of the earmarks, Congressionally mandated funds, for some of the other areas that have been the focus of the National Height

Modernization program.

And, again, the mapping and charting base is down a little bit this year and probably, and we'll see what happens next year.

And that's it. Right on time.

CHAIR WELCH: Okay. Juliana. Well, thank you. Are there questions or comments for Juliana?

VICE CHAIR WELLSLAGER: Juliana, the Department of Homeland Security, is that-- a issue for GPS detection?

MS. BLACKWELL: No.

MEMBER BRIGHAM: How much is Defense Department a user of this information?

MS. BLACKWELL: Of the information that I had on the slide for DHS or all of it?

MEMBER BRIGHAM: Just about the--

MS. BLACKWELL: They won't tell us.

MEMBER BRIGHAM: So then they are using it?

MS. BLACKWELL: Yes, they are using it.

MEMBER BRIGHAM: But you're the only ones that do it for terrestrial United States?

MS. BLACKWELL: That's correct.

MEMBER BRIGHAM: Okay.

MS. BLACKWELL: I mean, I couldn't even speak to what all they do, but we do work with NGA and other entities when we have common needs and data that we collect. But I don't have an answer for it; how much of our data they use for their efforts.

MEMBER BRIGHAM: Yes, I know. They don't have a reciprocal identical organization that's doing what you're doing?

MS. BLACKWELL: No. I hope they will not be testifying on the Hill --

MEMBER BRIGHAM: Well, I mean at least for this overlap question, how many government agencies do we need to do this? And I understand the security implications of

using satellite technology and all that added to this. But you're the baseline.

MS. BLACKWELL: We are the baseline for the nation. And so DoD really is looking more internationally and focusing on that.

I will say that the USGS is really the group that we are confused with most often. And just to make a statement that the National Geodetic Survey does not make maps. That's the other guys. That's USGS. We provide the framework, you know, make sure that it fits together right, we provide that basic foundational information for the surveys, whether it's Army Corps of Engineers or USGS or state and local entities. Any time that folks are doing something certainly that crosses state boundaries, you want to make sure they're on a basic framework. So we don't produce maps. The only thing we come close to is the shoreline delineation for a nautical chart. But, again, it's hard for

people to fathom what it is that we do if we're not providing the topo maps that you're used to seeing. But the fact is that they couldn't produce those or produce those accurately if they didn't know what their starting points were.

So, hopefully, we'll be able to explain our unique role in the federal government to anyone who asks. But the questions of the mapping and how many different federal agencies do mapping -- everyone does something a little bit differently. But we are working with those federal agencies to make sure that they understand our role and that they're using our data and datums to reference their geospatial information so that it is a common -- so things fit together. And GIS users and everybody else that want things to match up will do so because they're using the national datums that we provide.

MEMBER PERKINS: A couple of

questions. Scott Perkins.

The response to the Tuscaloosa, Alabama tornado damage, did the Weather Service reimburse NGS, NOAA -- for the aircraft time and operation?

MS. BLACKWELL: Since this is still fresh, I don't even know if they've finished collecting the data. I believe they have, but I've been sort of out of touch with flying to Hawaii yesterday and not getting caught up on everything.

I would imagine that it's not going to be a reimbursable type of effort. But, you know, as part of our NOAA, one NOAA, we need to respond and support other line offices. And this has been a pretty small effort on our part to collect data for, perhaps, five days at the most. I don't have exact figures. It's a lot of goodwill and good collaboration with another line office that we don't really have a whole lot in common.

MEMBER PERKINS: Was the response to the flooding up in North Dakota on the Red River, was that at the request of FEMA or was that for the Weather Service?

MS. BLACKWELL: Again, I think it's probably more then one entity. I mean, from a Weather Service perspective being able to validate their predictions and their models I think was key. But the National Geodetic Survey in this emergency response effort works with several different federal agencies. And if Mike Aslaksen were here, he would be able to rattle off all the acronyms that he's lead on as far as remote sensing capabilities go. But it's usually a group decision that's made. And Weather Service certainly had a need, FEMA had a need. I don't have all the details on that, but I can get that for you.

MEMBER PERKINS: Thank you.

CHAIR WELCH: Any other questions? Yes, Gary?

MEMBER JEFFRESS: One of the

benefits that Juliana has not touched on which is fairly new, it's ongoing research, is the use of use of CORS data, the precise geodetic -- data that CORS comes up with.

One of the problems with -- satellite navigation systems is what happens to the signal as it goes through the ionosphere and the troposphere. And that's why precise GPS has at least two signals because there's slightly different time delay caused by the error introduced by the ionosphere and the troposphere.

One of the things that, ever since satellite navigation systems have been around is to model the amount of water vapor in the troposphere to get that out of the error -- and of course the algorithms do that pretty good now because they've been doing it since the 1960s. If you reverse-engineer that, you know exactly where you are like the CORS stations do, you can reverse-engineer that tropospheric model and actually use the GPS

signal to measure water vapor.

And now the National Weather Service and the National Center for Atmospheric Research is doing a lot of research on using the CORS data to measure water vapor across the United States in real time. And most of these CORS stations actually measure about every five seconds and they mesasure multiple satellites at the same time.

So every minute of every day or every five seconds it's getting shots of measuring the water vapor in the atmosphere which is improving weather forecasting. And it's another spin-off of the CORS network.

MS. BLACKWELL: Thank you, Gary. And that's true.

Basically just to summarize, using that information to tell what the water vapor is, and I think it's like a five minute -- there's a little bit of delay, it's not exact real time. But use that for -- I don't know.

Probably in the tornado predictions that were obviously not too accurate. I can't think of the word I'm looking for. But we're right on, unfortunately, certainly in this most recent event.

MEMBER JEFFRESS: One of the things we've been working with these guys at NCAR and University Consortium for Atmospheric Research is getting some of these CORS station in the middle of the Gulf of Mexico to track hurricanes and then to measure the water vapor as it's being radically changed in the hurricanes.

CHAIR WELCH: Okay. Thank you, Gary, and thank you, Juliana.

So let's move now to Richard Edwing and the Center for Operational Oceanographic Products and Services known as CO-OPS.

MR. EDWING: Okay. Thank you, Ed.

So my 60 second summary is, you know our elevator phrase for what we do is

turning operational physical oceanographic data into meaningful information for the nation. And, as Juliana said, you know our roots go back to Thomas Jefferson's days back when, you know, to get a ship into or out of a harbor safely, you needed to be able to position it, you needed a nautical chart and you needed tide and tidal current predictions. And those fundamental needs really haven't -- they're still here today, although technology has really changed the way in which we do those things.

We work together very closely. A lot of things I do help support their missions. We would provide that tidal data reference framework, vertical reference framework on the water level side, for charts and referencing shoreline, as well as other things these guys need.

We also provide some of our services directly to the mariners, you know, the tide and tidal current predictions as well

as other products that technology now allows us to do. And over time, the other uses, you know, non-navigation uses have really expanded and segues nicely into my update here.

So next slide.

So I'm going to present our recent accomplishments and kind of what we're going to be doing in the near future here through a slightly different lens.

We recently reorganized ourselves in terms of how we bring in customer requirements and see that through to products and services. The new members got an overview of this during the orientation briefing. I'm not sure if I've really gone through this with the other members. But we have three programs, each one has a program manager in charge of it, and it really just follows what I just said. And these programs are organized by customer groups.

We used to always think of ourselves in terms of our observing systems,

but we realized that observing systems are just a means to an end and it's all about getting the customers the products and services that they need. And they bin nicely into kind of these three broad categories. So I'm going to talk about what we're doing through these filters, and I'll say a few words about each program as I get to it.

So next slide, Virginia.

So the Mapping and Charting Support Services. CO-OPS doesn't do mapping, we don't do charting, but we support the mapping and charting missions of Coast Survey and NGS. And this customer group is really the internal customer group; not just within NOAA but within the federal government because there's other agencies like the Corps who have the dredging mission, they need things from us, the same tidal datum, some of the same types of information.

And so under the recent accomplishments category here, last year in

2010 we supported 46 different hydrographic or shoreline surveys. We provide a lot of kind of planning information for those projects that are being planned in terms of tidal zoning and product constructions and other things, and there's other types of information or activities that happens after those projects are completed in terms of providing tidal correctors and validating -- data and things of that nature.

Juliana talked a little bit about the VDatum program. We did three gauging surveys last year; one up in Maine, another up in Massachusetts, one up in Alaska to support the development of new VDatum models or to help reduce uncertainties in existing VDatum models.

And the last bullet talks about we're involved in a tri-agency group that's looking to, among other things, achieve data interoperability between gauging systems, you know. NOAA has tide gauges out there, the

Corps has tide gauges out there that they use for their coastal projects. USGS has thousand of gauges, mostly upriver and for streams and inland -- but they do have a subset that's along the coast.

We've been working closely with the Corps now for several years to get their gauges converted to NOAA tidal datums. They saw the light after the New Orleans and Katrina incident. So we've been working mainly with USGS.

Okay. So what's it going to take to get USGS and its coastal gauges, to get them upgraded to NOS standards? And they've been working very well with us. And so so far there's been a kind of an inventory completed and some GIS tools created to look at these gauges and also an assessment of what it's going to take to actually upgrade these USGS gauges.

So future outlook. Click the button there again.

So this year in 2011 there's approximately 35 hydrographic and photogrammetric projects planned. The number varies from year-to-year. And, again, we're going to be doing some more gauging surveys up in Alaska and in Puerto Rico for VDatum model support.

One bullet that's not on there is kind for the trilateral agency effort. We've picked Texas as a place to actually start doing some things with the USGS gauges in terms of approving the geodetic control of those gauges because they don't have good geodetic control right now. And they're going to convert to gauges from, I think, 15 minute data collection to our 6 minute data collection. And we're going to use that as a pilot project for a start to get the USGS gauges to provide data that could be used more broadly. And I think Gary's group is involved in some of it. You can't do anything in Texas without involving Gary's group one way or

another.

Next slide.

And I've got some water level observation network stuff in here. Really, our networks double booked underneath any particular program because they support all the programs, but I wanted to talk about a few things, so I kind of slide it in here.

One thing we've been doing since Hurricanes Katrina and Rita destroying a lot of gauges in the Gulf. We've been hardening our stations down there, rebuilding and hardening. And hardening just means we're strengthening them a variety of ways so that, hopefully, text time they'll survive because it's one of the most important times to be getting data when there's an extreme event happening. There's a couple of levels to that.

You know, if we're already on a reasonably substantial pier, we'll just usually put a steel frame underneath and get

that tide station lifted up a bit so it's above the projected storm surge levels. If the pier's not very strong and it's kind of in a protected area, sometimes we'll put in our four pile platform. That that's an illustration to the left there to get it up and protected. But for the open coast sites, we design something called a NOAA Sentinel and then Gary talked a little bit about that earlier. And these are designed to withstand Category 4 hurricanes. That's the illustrations that are right there. It's a single pile platform, a single steel platform. Those steel piles are four foot in diameter. The steel thickness, the wall thickness is one to two inches depending on the design. They're driven 60 to 80 feet in the bottom. They stick up about 25 to 30 feet in the air.

And we got four of these in place just in time for Hurricanes Ike and Gustav, and they did really well. They obviously survived, they put out data. And they really

proved their worth.

And Gary talked about two more going in off the coast of Texas. And that's just a great partnership. So NOAA designed, it's the Corps of Engineers money, we're providing the equipment, TCOON is doing a lot of work, but we're all going to end up winners from that project.

So go ahead and hit the future.

So another thing we completed in 2010 was we completed adding meteorological sensors to about 181 stations. We didn't need to do it to all of them, because not all of them were suitable for adding meteorological centers to. But we completed that effort. And again, that's to provide real-time data to the local mariner who may need it to make navigational decisions and also the Weather Service uses this information to improve any weather forecasts and storm surge models and other things.

And then the last bullet is we're

always looking for better ways to do things and we just recently completed an evaluation of a microwave water level sensor that we're looking at for our next generation primary water level sensor. Right now we use an acoustic gauge. And the problem with all of the prior technologies is all this stuff has to be down in the water to some degree and that creates issues with biofouling and silting and maintenance cost of divers and the microwave sensor sits up on the side of the pier and uses microwaves to measure the water level and gets us out of the water altogether.

But certainly with our primary water level sensor, before we integrated any new technology, we got to make sure we fully understand it, make sure there's no issues in there because a lot of our data, long term water level series water level trends and things we have to have confidence that we're not letting any systemic issues.

So now getting to the future

outlook, I just talked about the two new Sentinel stations and we're going to hardening an additional five stations using the four pile platform or these elevated frames this year.

Next slide.

Okay. So Maritime Services. This is where we provide products and services directly to the mariner. These kind of fall into three main bins: There's a tide and tidal current predictions and those are usually perfectly good. On an average date we don't have a lot of weather going on because these are astronomically-based.

And the next two slides relate to real-time products and then the last slide is the modeling products for forecast.

But to update the tide and tidal current predictions, we do we lot of tidal current surveys each year. This past year we've done some in Hawaii, Alaska, Connecticut and New York to update tidal current

predictions and their locations.

So, Virginia, can you click on Hawaii. Use your mouse to click on Hawaii there. There we go. Okay.

So literally just last month we completed a tidal current survey in Hawaii. A few years ago the pilots told us, "Gee, it's been a long time since a survey's been here. A lot of predictions out of whack." And so we put this on. It was a total of 30 locations that we put meters in. We always do these in waves of deployment because we deploy some, measure, pick them up and put them someplace else after downloading the data, obviously.

What's that?

MS. DENTLER: Do you want me click through?

MR. EDWING: Now don't get me getting too far ahead. Don't steal thunder.

So is this first click or is this the second? Okay. So do one more click.

The red dots were the first wave,

there were 17 meters deployed. With the second wave we picked up 13 and moved them to different locations. Four of them got left in for the whole survey because we collect longer time series at some locations, they're called reference stations and we can improve the accuracies of shorter deployments by comparing them to the longer deployments.

So these are the locations in Hawaii that they got deployed at.

Now go for the last click.

But the kind of neat thing was the last wave was in place when the tsunami occurred. And, you know whenever a tsunami occurs there's lots of water level information that's acquired to help improve the models and things that the tsunami folks need. Well there's not a whole lot of current meters in place that pick up the tsunami, and sometimes the currents associated with a tsunami can be just as destructive as that initial wave, if you will. And the modelers, the currents part

of their model is not nearly as good as the tsunami wave part. They just don't have this kind of post-tsunami data to use.

So they were very excited about getting the data from the latter half of the survey. And this is just one of the data series. And this was the current meter that was deployed off of Kahului at the harbor in Maui. And this is where we recorded the largest tsunami wave in Hawaii. But that color graph there from left to right is chronology and left being earliest. It started the date, you see it reads to the right.

From top to bottom is the water depth, if you will, the current meter we deployed. You sit on the bottom, you look up through the water columns and you take the measurements at different levels.

And the blue is kind of slower velocities. Cold colors are the slower velocities and the warm colors are the higher

velocities. So if you look below you'll see that shows that tsunami wave hit Kahului and of course right above it you can see the bright green and yellow where we recorded some really high velocity information there.

And then you can see for days after, you know the initial wave came through but the Pacific basin was ringing with that tsunami. And this, of course, showed up in the water levels as well.

Okay. So click that arrow to the right. No. The arrow to the right above the Google. No. Above the Google. There you go. It takes you back. Okay.

So since the Hawaii survey just happened, I wanted to point that out.

One thing we did last year in terms of products, we upgraded the website, the tide predictions part of the website just to provide a lot more bells and whistles to be able to able to pull out tide predictions in terms of being able to do a lot more

predictions on the fly, you know before you had to go in and maybe pull some information out and do it manually.

We also had different kinds of graph presentations and just a lot more features and it makes it a more useful website.

And after ever tidal current survey we usually put out a special edition of that survey because it takes you a year or two to get it into the tide tables just because of processing delay. So we kind of get a special publication out to get the information out there earlier, as well as it also gives the users a chance to kind of start using that information and they can come back and tell us "Yes, this all seems really spot on" or "No, something seems a little off here" and we can look into that and try to fix it if it needs fixing before it makes it into the formal tables.

And so what's coming around the

corner is we've additional current surveys planned in Boston, San Francisco Bay, Florida Keys, Fernandina Beach in Florida, as well as St. Johns Pass and also up in Kachemak Bay. And that's a little bit different one. That's not so much for the navigation community, but for a renewable energy project going on up there. We're looking for more information to assess whether that's a good place to do a hydrokinetic-driven renewable energy project. And it's actually a collaborative project with a number of state entities up there.

Next slide.

So predictions are good if it's an average weather day. Not so good when the weather is doing something. So we provide real-time data. Technology to provide real-time data, mainly through the PORTS program, but also our inland stations provide real-time data as well.

We recently were able to add visibility and waves to the sweep of

environmental parameters provided by PORTS. That was our last two outstanding high priority parameters requested by the community.

We published an economic study of the Columbia River PORTS. That's a fourth in the series of studies we've done. We talked about that at the last Portland meeting.

CHAIR WELCH: Rich, I'm sorry.

MR. EDWING: Yes.

CHAIR WELCH: Is visibility the same thing as a fog sensing?

MR. EDWING: Yes. Yes.

CHAIR WELCH: And we talked about that at our Panel meeting in San Francisco a few years ago.

MR. EDWING: Right.

CHAIR WELCH: Okay. Thanks.

MR. EDWING: Yes. It took us quite a while to find the right sensor to operate in the marine environment for this application. So we finally got one.

And then the last one, we installed that air gap sensor in Jacksonville, Florida. This really just happen in the last month. And it's really the acceleration of an air gap sensor that's being put in as part of a new PORTS system that's going in down there. But they came to us and said "Gee, you know there's construction going on on the Dames Point Bridge. They've bulk this scaffolding." It's not quite the right word, but it's scaffolding under the bridge. "It's reduced the air gap and now Carnival Cruise Lines is balking at bringing their cruise ships into port anymore." And last year Carnival contributed over $3 million in gross revenues to the Port at Jacksonville at 50K a cruise ship coming up.

And so we've accelerated the installation of this one air gap sensor which now gives them the comfort level they need to be able to get those vessels safely back and forth under that bridge, so that helped them

out.

So future outlook. Right now we've got a PORTS under construction in New London, Connecticut. The Navy, the U.S. Navy's our partner there, our funding partner. And that's because it's a small port, current meter, but it's to help get their subs in and out of the base safety because they have to kind of back them out into the river, and the river flow is pretty good and creates some issues.

And Jacksonville is just awaiting final approval of a grant from FEMA to get that PORTS going, but if that's the case it'll be the largest PORTS established to date just in terms of the numbers of sensors and things.

And Humboldt Bay is pretty close to it. They've got grant money to establish the PORTS service, trying to line up their own end funding. So that was potentially right around the corner too if they didn't close that last year.

Next slide.

Okay. So knowing what's going on right now is great, but knowing what's going to happen pretty accurately tomorrow or the next day after that is maybe even better in terms of planning your transit schedule, optimizing perhaps the cargo load on that vessel; maybe taking cargo off, maybe putting more on. So we operate these forecast models at a number of estuaries in the U.S.

A big effort over the last year or two is we set up operating these models on our servers at cost. We've been transitioning them over to the high performance computers, the super computers. They're operated by the Weather Service at the National Centers for Environmental Prediction. And we're not transitioning into the Weather Service, we're just sharing that capacity, if you will.

And, by the way, this was a recommendation by NOAA Science Advisory Board to do this. So recommendations can make things

happen.

But the advantages are they have more robust operational infrastructure, the models can run a lot faster, it allows them to do a lot more things. We can add more bells and whistles. We've done a lot of standardization along with that.

It can also be coupled with other models that the Weather Service is running which creates potential for even more power to products. So there's a steep learning curve with that. Just lots of things to be worked out, which we're pretty much through and so we've started transitioning things through. Great Lakes got the first ones transitioned through.

More recently we put out new models for Tampa Bay and Delaware Bay.

We took Chesapeake Bay, which was the very first model we put out a number of years ago, and we retrofitted it, upgraded it into the new class of models. And we put that

one out there as well.

Click for the future outlook there.

And the ones around the corner are Columbia River and Northern Gulf of Mexico.

The Northern Gulf of Mexico is a little bit of a larger offshore model that's going to allow us to do smaller nested models for Mobile and Pascagoula and Gulf Port and Lake Charles, and some of the other smaller estuaries in there. And so these are the next models that will be worked on and rolled out in FY '11 or '12.

Okay. Next slide.

So our last programmatic area is Coastal. And really the first two programs are focused on kind of, you know I'll say our foundational core supporting Commerce mission. But Coastal is all the non-navigation stuff, and it's a pretty diverse portfolio. So there's three subthemes underneath there.

One of these is the Coastal

hazards. Again, our gauges provide real-time data to the Tsunami Warning Center. It actually, it provides high resolution date, one minute data to the Tsunami Warning Center. Because they need to be able to see that tsunami signal really well.

I went to the Pacific Tsunami Center yesterday with Dave Kennedy and also met with the Navy yesterday. And they both remarked upon usefulness of this because, you know once that earthquake happens and once they get the initial seismic readings they start generating models and running models to issue forecasts. And it's when it starts hitting the tide gauges that they start to see how well they've done. And when you start seeing these readings from our gauges out in Wake Island and Midway Island and some of the other places, they knew they had got it right on, you know. That gave them a large comfort level in terms of did they have to do things with the fleet to move it out of harm's way.

The Pacific Tsunami Warning Center to tell the State of Hawaii, yes, we're on. You can make your evacuation plans accordingly. So a lot of value to that information.

And the corollary is the other type of hazard is, you know, big storms, whether it's a hurricane or a typhoon or a big tropical storm we provide that real-time data to the Weather Service and emergency responders because it tells them what's going on at that location in terms of storm surge.

We also issue, it's a specialized product called a Storm Quicklook product which is a synoptic at all the water levels that are being affected by a particular storm. You know, last season was a pretty quite season in the U.S., although it was predicted to be above average. Like, they're saying this next season is going to be above average and we'll just to see.

So, we didn't have a lot to do this last year. But we did work with the

Weather Service to integrate a lot of our information directly into their SLOSH model. That's their storm surge forecast model. Up until last year they had to run their model and kind of look at all of our information separately in terms of using it as input to the model or to validate what the model was saying. Now within that model they can actually pull up screens and do specialized displays of our information. So it's all there in one place.

Okay. Future outlook.

Last year we got an earmark to do a storm surge project, to do storm surge gauges down in Mobile Bay. Mobile had gotten a PORTS system a number of years ago and they were really quite happy with that in terms of supporting safe navigation, but they also saw that it helped support evacuation decisions in terms of when a storm was coming through. But the PORTS system only went up so far in the bay because that's as far as the marine

commerce went, but they had a lot of flooding issues up in the northern of the bay so they wanted more gauges up in the northern part. So we're putting in those gauges for them. They're being integrated into the PORTS system as a delivery system even though programmatically they're be, I'll say, kept separate. So that's going to be completed this year.

Next slide.

So another subtheme under Coastal is ecosystem management. You know, we've done a lot of work with folks at Habitat Restoration and those sorts of things, but probably the biggest thing we did this last year is up until 2010 we operated a harmful algal bloom forecast model off the West Coast of Florida. But there was some funding received in 2010 to start expanding that system to other places and we were able to transition into our operational environment the HAB forecast system that was developed for

off the coast of Texas. So that was operationalized.

Okay. Next button there.

And so the next place we're going to up in the Great Lakes they have some HAB issues up there. There's already been a model that's been developed by the Glor Lab that is kind of right for transition, so we're working with bringing that one into the fold next.

Oh, too quick there.

And then just in general we've been doing a lot of water level support for the National Estuarine Research Reserve System for a variety of things. For storm surge, for habitat restoration. But kind of the big thing now is a reserve to try to become sentinel sites. There's that word "sentinel" again but different meaning in terms of climate change. And so we're looking how to maybe refocus some of our efforts to help provide some that spatial foundation they'll need to help support some of that work.

Next. Okay. Last programmatic slide.

So the last subtheme under Coastal is climate change. You know, CO-OPS is the legal authority for defining local mean sea level in the U.S. and we provide long term sea level trends domestically from our network gauges, some of which go back over 150 years in the data record. We also bring in data records from global stations and put that information in as well, we continue to do that.

About every five years or so we put out a hard copy publication that puts out some of this information in a bit more detail in a hard copy publication which we put out recently.

And we've worked with the U.S. Corps of Engineers. Not just on, you know getting them to convert this tide stations or enabling them to put their tide stations on NOAA time datums, but also any coastal project

they're going to do now is going to somehow take into account sea level trends. And we worked with them to publish their initial document. And the way the Corps works, is they put out an initial document with a new policy and then they kind of road test it for a couple of years, and then they take feedback on how well it worked or didn't worked, and they put out a final document.

So we worked with them very closely on that initial document, which was put out. And now we're working with them and helping them finalize their final document.

Next click. There we go.

And even though we're primarily focused on domestic activities, we got a State Department grant a year or so ago to put a tide station out in Barbuda, a Caribbean island. And the Caribbeans try to get together and establish a water level network to, I'll say NOAA standards, in terms of being able to use it not just for sea level rise or

tsunami detection, but also for navigation uses and all those sorts of things. So we're helping them establish a station in Barbuda which they can then use to kind of gain expertise with and then transfer that expertise to other Caribbean stations. So that station should be up and running in the next couple of months.

Next slide. Okay.

So that was all the programmatic stuff. Here's the budget slide. In 2010 we got almost $34 million, about $3.8 million of that was congressional add-on to provide O&M costs or funding for the 20 PORTS systems, capital PORTS system that were in operation around the coast. This was actually the third year that Congress had provided PORTS O&M funding. It kept kind of going up a little each year, but this is the high watermark, I think. And it was also this coastal tidal gauges earmark that was in 2010.

But then you can kind of ignore

that 2011 number, because we haven't gotten that number yet. But, again, I think -- one thing I can say it's not going to include that PORTS O&M funding and it's not going to include that earmark. Because that was the first guidance that was provided was all those things kind of, you know get dropped out.

And then in 2012 that's the number that's out there as part of the President's budget. You know, as both John and Dave had said, you know kind of the starting point of '12 is not so much the President's budget, it's what we got in '11. But I will say the '12 number is everybody took a reduction already in terms of -- Paul, what's the term? Governmental accountability and what was that term that as applied to that administrative cut that everybody -- efficiency and accountability?

MR. BRADLEY: Yes. Yes.

MR. EDWING: Anyway, everybody took a cut to their program to find

administrative efficiencies. But on top of that cost proposed another reduction because of completing the sensor upgrades as well as it also took the hardening money out of the budget. Those two things were taken out of the budget for CO-OPS in 2012. So we're about a million dollars under what would have been the '11 budget.

Last slide, which is the performance metrics. This is the high level performance metric that we feed up into -- and this is really across tri-office performance metric. It's a percent of the top 175 U.S. seaports with access to the full suite of our products and services. And there's about six or seven things that feed into this.

It's whether a port has an up to date ENC, whether it's got up to date shoreline, it's got the VDatum model, has the ENC been validated recently by NOT, does it have update tidal current predictions, does it have real-time data as supplied by PORTS.

There's a number of things that feed up into there. And CO-OPS, you know feeds the PORTS and the tidal current prediction information up into that.

Hit the button again.

And then just some of the milestones that we set for 2011. And you've seen some of these already in my presentation. I think maybe the only one that wasn't in there was that very last one on the bottom right hand side is we've been trying to get prepared for doing more water level measurements up in Alaska, which is a very challenging environment, particularly north of Aleutians. We can establish water levels, long term water level stations pretty well and keep them going from the Aleutians south. We have about 29 stations right now in Alaska, 24 of those are in the Aleutians or in southeast Alaska. Only five are up north. And there's just huge gaps in the geospatial information up there. We've been looking for ways to put

gauges out under the ice and being able to collect data. And we were actually able to collect, without getting into a lot details, two years of data under the ice up at Barrow and bring it back and use it.

So, I mean that's maybe a method that we do some long term measurements up in some of these more hostile areas. So we'll be doing a technical report on that and getting it out by the end of the fiscal year.

So, last slide.

A little cartoon that came out recently.

CHAIR WELCH: Okay. Thanks, Rich. And do we have comments or questions?

MEMBER MILLER: I have a question.

CHAIR WELCH: Joyce?

MEMBER MILLER: Joyce Miller.

A Pacific-centered question. The infrastructure out here, I've done a fair amount of mapping out in the sea in Guam and the tide gauges are few and far between.

MR. EDWING: Right. Right.

MEMBER MILLER: Is there any -- you know, what's the outlook for Hawaii and Pacific for infrastructure? Is there any intent to try to upgrade or put more tide gauges in, or sort of what's planned for the Pacific over the next X number of years?

MR. EDWING: Yes. There's no real plan to put more in. We've done a number of things over the last few years to -- again, it wasn't so much hardening, but in a lot of these places which are very remote and hard to get to, we put in almost a second tide station to get that redundancy. It was mainly for the long term sea level rise and some of the tsunami sort of aspects.

You know, if a tide gauge has a catastrophic failure, it took us months sometimes to get out there to fix it and by then you've suffered a big blow to that data record. Well, we've put in a second, almost a whole second redundant system to try to get

around that. So, but really there's no plans.

In terms of supporting the navigation mission, at least in terms of the islands, we're pretty well covered, at least in terms of the main populated islands, let me put it that way.

We used to have a gauge on Johnston Island. In fact, when the military was there. But we had to abandon that gauge back when the military abandoned the site and I think it's just a big park now.

So we've done a lot of things to strengthen the existing tide gauges, but there's really nothing planned in terms of putting more and more gauges in.

CHAIR WELCH: David?

MEMBER JAY: The sort of the problem with the sea level, and there are a lot of them. There's the tide side, there's the surge side and then there's the wave side. You're not really into the wave prediction.

MR. EDWING: No.

MEMBER JAY. I don't know if there's anybody doing a systematic effort. But it seemed to be a pretty important that isn't very well vetted.

MR. EDWING: Well, we've got NDBC which has the buoy network, which is well offshore and that's one of their parameters that they're bringing in. But there's a big gap between what NDBC is doing offshore and closer in.

Now the Corps has a small wave network, CDIP. I forget what the acronym stands for. But that was how we actually met our PORTS requirement for waves, was we're integrating the data from those wave buoys where they're co-located with a PORTS system. But the Corps is the best source right now in terms of that near shore wave information.

CHAIR WELCH: Gary?

MEMBER JEFFRESS: I believe I can announce that TCOON has just been shortlisted by the State of Texas to receive a grant on

the Coastal Impact and Assessment Program, which is from the Bureau of Ocean Energy Management, Regulation and Enforcement to put three more Sentinels in Texas to cover the middle and south coast.

CHAIR WELCH: Sherri?

MEMBER HICKMAN: The new storm surge relief in Mobile is Sentinel?

MR. EDWING: The tide gauges, yes.

MEMBER HICKMAN: Okay. Who is paying the --

MR. EDWING: This is Mobile County Commission that's our partner on this.

MEMBER HICKMAN: And is that the case for the PORTS program itself?

MR. EDWING: No, no, no. It's two different partners for two different purposes. We're just using the PORTS dissemination page to get the data out to everybody and everybody's agreed to that. But the PORTS partner is not picking up the O&M for the storm surge gauges.

MEMBER HICKMAN: Okay.

CHAIR WELCH: Okay. All right. Well, thanks to all three of the line agencies.

Short break, and then we'll come back to our users Panel. We're a little bit behind schedule. Let's take ten minutes.

(Whereupon, the above-entitled matter went off the record at 2:43 p.m. and resumed at 3:04 p.m.)

CHAIR WELCH: Okay. We have a couple of real quick administrative items.

First, we do have this dinner tonight, which is of course voluntary but is usually a lot of fun, the food's pretty good. But Kathy needs a show of hands of everybody that's planning to be part of the group tonight so that she can make our plans. So, raise your hand now. Guests can come, too.

So how many?

MS. WATSON: Oh, about 21.

CHAIR WELCH: Okay. Now, Kathy,

what are the logistics? Where do we meet and when do we meet and what do we do?

MS. WATSON: The Agenda says we're going to meet in the lobby, actually. The main lobby.

CHAIR WELCH: Okay. Near the check-in place?

MS. WATSON: Yes. At 6:30. And it's only about maybe 15 minute walk. Very nice pleasant walk.

MEMBER MILLER: And I have a car since I'm local. And some people, like Michele has a bum knee. So if anybody needs a ride or would like to ride down, I'm going to take my car anyway because I go home.

MS. WATSON: And also, too, any of the speakers are more than welcome to join, or any of the guests in the audience you're welcome to join also.

CHAIR WELCH: Okay. Very good.

And then a second item is that we have some paperwork we have to fill out.

Where's Tiffany? Tiffany House is one of our NOAA folks.

We have two different pieces of paper we have to fill out?

MS. HOUSE: Yes.

CHAIR WELCH: So take a look at those forms. And if you are a little but unclear as to what you need to fill out, Tiffany will -- just see her.

Now you just need that before we get out of town?

MS. HOUSE: Yes.

CHAIR WELCH: Right. Okay.

Oh, one other thing. Is there anybody here who is willing to admit this is their first time in Hawaii? Very good.

Okay. Let's move on then to our first Stakeholders Panel or Users Panel. And this is where we have people that interact with NOAA or use NOAA products to tell the Panel how they use products, what value or lack of value they might have, what they might

need that isn't being offered or suggestions for improvements or enhancements.

This is a portion of the program that we get a lot of value from, and we appreciate you all committing some time and some effort to be with us.

This first Panel tends to be equal or more traditional maritime users or people involved in commercial or other types of navigation.

So what we'll do, I think, is recognize each of you in turn and we will hold our questions until our panelists all get through and then we can talk to them collectively.

And we do have one change from our program. So we'll start with Captain Steven Baker from the Hawaiian Pilots Association. So, welcome, and the floor is yours.

CAPT. BAKER: All right. Thanks.

I'm the President with the Hawaii Pilots Association. And we've been providing

safe efficient piloted service here to Hawaii's seven deep draft commercial ports on four different islands for just over 30 years now. And in 1979, like many of the coastal states, the state government decided it was best to leave state pilotage to a private entity. And prior to that we had worked for the state as state employees. And that had been going back for quite a ways. And they retrained oversight and control over the rate structure like any other regulated industry. So, we've been private for a little over 30 years.

If you go way back, we used to use the harbor master/pilot. In some of the neighbor island ports I used to do both jobs, so we don't do that anymore.

The pilots, we don't perform any piloted services for the Navy base at Pearl, but we frequently routinely pilot U.S. and foreign naval vessels that call at the commercial ports. And around the mid-1990s we

also provided piloted services at Johnston Atoll. Did that for several years.

I don't know if you're familiar with that. Some folks may be. But that was being used as a disposal site for chemical weapons and they required a regular tanker to go in and fill up the storage tanks they had there.

It was a very interesting location and we contracted with them to provide a pilot. About every six weeks or so they had to take a tanker in. So, it was outside out of the state tariff and there wasn't a lot of datum down there. We did have the tidal datum. As you mentioned, we did have a site down there at the time so we could work with that. But they had tremendous currents going through that atoll. And they were very concerned because it does border a wildlife preserve area that they didn't want to have any accidents down there. So we did agree to send a pilot down.

And we'd set up a daily charge. We thought it would be a great idea from the time that they're at the airport until they returned. So we would get our pilot back as soon as possible. But I didn't realize that didn't move the government very much, the Army. They would leave our guy down there for about a week at a time.

But anyway, that's all shutdown now and we concentrate just here in the ports we have in Hawaii.

We're currently comprised of ten pilots. We work a two week on, two week off schedule. We take our turn traveling to the inner island ports extensively. And we cover as many jobs as we can when it's our turn and then we fall back to two, sometimes three pilots to handle that work in the neighbor islands.

We do heavy lift, cable layers, research vessels, passenger ships, container ships, tankers, foreign fishing vessels. We do

a variety of stuff, even cattle ships were quite frequent for a while. They were shipping a lot of stuff back to Mexico and Canada, a lot of cattle out of the Big Island.

Most of our work is stable year round. We do experience surge periods when the cruise ships are in transit to and from Alaska for their summertime cruise season.

Our pilots do strive to keep trained and current with the evolving technology. And in recent years we've seen significant changes, not only in how ships are navigated from the bridge but how they're maneuvered from the engine room as well.

Some of the most significant changes in the last decade include the evolution of the podded propulsion, the Azipod propulsion systems which we've seen on the larger passenger vessels and some cable layers. And then the ECDIS, or electric digitized chart systems which are becoming more and more prevalent on all the vessels as

they move from paper to electronic. And the implementation of the shipboard automatic identity systems, the AIS transponders which are now required on all the vessels.

We've been active with the Coast Guard. We've partnered with them and with the Maritime Marine Exchange out of San Francisco, and we do have a tracking system that goes out about 100 miles all around the islands. So it allows us to track the traffic coming through. It's been a very useful tool, especially for our management of just the pilot's time. And I'm sure it saved us a lot of fuel not having to send out pilot boats looking for inbounders that haven't called in.

We maintain a close relationship with the American Pilots Association that we belong to. Also, the International Maritime Pilots Association. Perhaps the most important aspect of our relationship with the APA is we utilize their guidance and direction to determine specific areas where we need to

train, educate and certify ourselves with the evolving technology. And the most current example of that would be the ECDIS regulations that are mandated by IMO and will go into effect here in 2012.

Some of the services that we've either utilized or that we're actually looking at that we've discussed some of it with NOAA in the past would be the PORTS buoy system. We've been interested in that for several our ports.

None of our pilotage areas are long runs. Everything's fairly short. We board two or three miles offshore and the channels leading into the ports are fairly short, and the ports aren't that large. But because we're an island state in the middle of the Pacific, the currents that come through the island are not as predictable and we can see a complete 180 degree change at any time, and it's not always something that we expect. We have to actually go out and look when we

get on. We lined up for an entry to see what's going on.

The new ECDIS systems and things on board are helpful to detect what the ship's doing prior to us getting on. Not all the ships have that yet, though. So a PORTS system we felt would certainly help because we would know what we're going to expect when we go onboard the ships.

Some of the ships are regular callers. We don't always catch them as far out as we would like to, although the AIS tracking system has helped us tremendously in that. We can see if somebody's coming up early and we get out there. But if you get on fairly close to the sea buoy, then you don't really have a lot of time to determine what the current set. And sometimes if you haven't been out that day, it could be going in either direction until you get onboard and determine what it's doing.

We've discussed with the Coast

Guard a little bit, and here recently with you folks, with the aids to navigation utilizing an AIC transponder as a means of-- I guess a less expensive way to go into a PORTS system where we can get current tracking via an AIS transponder on a Coast Guard buoy on a channel or a sea buoy. And that's just something that we're looking at. We've seen it done in some other locations, so it looks interesting.

Some of the pilots have discussed ocean cams, which are closed circuit TV systems which you could utilize for some of the areas that would be helpful if we could observe them visually. And now with the new technology that's very high definition it could be useful to us. And we discussed that a little bit with the state because they are in the process of doing a statewide system.

And then approved survey capability. And some of that has already happened since we just recently had you folks out here to do the update. In the aftermath

of the recent tsunami, local mariners had no way of accurately surveying the commercial harbor channels and basins, and this would be post-tsunami, to ensure we had safe water depth alongside the piers.

We ran our pilot boats around and did some tacit looks. We don't have side-scan, it's not a sophisticated system. But we were able to look at the main ship channels. We were able to determine if the aids were on station after the event. And all this is critical information that we need and the Coast Guard and the state requires in order to comfortably make the decision to reopen the port.

And all ports were closed for the last two tsunamis. We had to take a lot of vessels out. And the sooner we can get them back in, of course as soon as they decide it's safe, the better because there's no commerce going on while everybody's sitting off port and watching us. So we felt that maybe if

there was a dedicated NOAA survey launch for this purpose on station or available more, since we're kind of isolated out here in the islands that might be of a great help.

I'm hoping we don't have regular annual tsunamis, but we never know. And we have to do the same thing after a heavy wind event. Of course if there's a cyclone, a hurricane. Or we occasionally do get surf that's of a magnitude that it does move the aids around and does create unusual currents and other havoc. And again, when you have that much water moving around it's good to be able to do a survey as soon as possible to check and ensure that you've got your minimum depths that you want.

This outside of our area but one that we've been concerned about because we've been observing it for some time, and that's the Marine Sanctuary for the humpback whale which has established a minimum speed limit when it's in season of 13 knots. And we

understand the need for that, but it is in an area that is heavily used by our tug and barge operators, and ships, the transit here particularly in between the islands.

And the way we're set up in Hawaii, as some of you are probably already aware of, is the vast majority of the cargo comes into Honolulu and then is transhipped out to the neighbor island ports. We don't warehouse a lot of things here, so everybody functions with their inventory on just time of arrival. And any big interruption to that becomes very evident fairly quick in store shelves and so forth.

We'd like to suggest, also being mariners, our experience, that there is dialogue with the marine folks, people who are operating in that area, anytime they meet and possibly discuss revamping these rules. Because it impacts a lot of folks who transit that area. And in the wintertime, which is also during the season that the whales are

here, that is a preferred routing for most people because of the open ocean conditions we have here during the heavy north swells and other weather that we get during that time of year.

So we felt that that's something we wanted to mention. I know it's been a big problem for operators up on the East Coast for the right whale, and including the pilot boats that are over 65 feet in length. And I know there's a lot of dialogue going on in there, so we wanted to bring that -- just mention that.

Otherwise, we certainly have been regular users of your products. We are moving into the electronic age with ECDIS and certainly have found most of what we utilize here in the islands has been very helpful and very accurate. With only a two foot tidal range, and I know it's hard to predict currents in open ocean, we don't utilize some of the stuff to the extent they may in other

ports on the mainland. But we appreciate it. And also appreciate our opportunity to come and speak to you folks.

Thank you very much.

CHAIR WELCH: Thank you, Captain. We will hold some questions for you and come back to you.

So next representing Matson Navigation Company is Captain Bob Lamb.

CAPT. LAMB: Aloha.

Do you have my slide up? Okay.

Well, my name is Bob Lamb. I graduated from Kings Point, the U.S. Merchant Marine Academy in 1976. And I started shipping in the Merchant Marine immediately and thought I would never retire from the sea. I worked with U.S. Lines, Sea Land, Maersk Line and then ended up at Matson. And my last 22 years or so were as captain of merchant ships. And about a year and a half ago my boss asked me if I wanted to be the port captain here in Honolulu. And it seemed like

a no-brainer, so I said yes. The wife was a little surprised at that choice, but she's happy over here now.

This is one of our newer ships. It's not one of the ones we're going to go on tomorrow. Unfortunately, these are in on Monday and the Thursday ship is one of our older ones, built in the early '80s, or so. But it still has the ECDIS onboard, so we'll see the integrated chart systems.

You can see up on the top there the route that our ships take. We have two services that go from the West Coast to here, and one that goes from the West Coast through here and Guam out to China and back to the West Coast.

And Captain Steve here said, it's all hub and spoke service in the islands. Our ships bring the cargo into Honolulu and Guam. And then in Guam we actually have a small ship that we charter, The Islander, that serves all of those little neighbor islands out there.

In Honolulu here we transfer everything over to barges and Sause Bros, Brad Rimmel here tows our barges around.

Next slide, please.

But that was my history. Here's a little history of Matson.

It's been around for a long time. Late 1800s they started.

I'll just make that a quick one there. You know sails, now we're into steam and motor ships.

Next slide, please.

CHAIR WELCH: While we're waiting, Captain Tom Jacobsen, have you ever piloted Matson into L.A.?

MEMBER JACOBSEN: Yes. Long Beach. I was going to say you need to correct that last slide. It should say Long Beach up there.

CAPT. LAMB: Did it say Los Angeles?

MEMBER JACOBSEN: Yes.

CAPT. LAMB: Yes, this one it does.

Okay. This is from a program we use called Applied Weather Technologies. They're all over the world really, but it's for the weather guarding on ships, but I thought it was pretty germane to what I wanted to talk about today.

You saw the first slide that showed the routes that our ships might go. This will show -- one of our China ships is in -- one of our China ships is in Long Beach, the other one just left Honolulu. We have that just sailed from Guam. There's one in Shanghai just sailed from there today. And the one coming back from China is up here.

So, we're on a five week service. The other ships on the coast by us run are the Mokihana and the Maui. They almost collided here, the Maui heading out here and the Mokihana heading to Oakland. And the Mahi Mahi is the one we'll be on tomorrow, and

she's coming in from Long Beach. And the Manoa, she's the one heading up to Seattle.

You might notice I didn't point to all of these ships. We also have five ships that we recently chartered. They're foreign-flagged and foreign-crewed that Matson chartered. And they're going from China back to the U.S.: The Kainalu, Kaimoku, Kailua, there's one over there I can't quite see coming out of Hong Kong.

So Steve was talking about the currents in and around the ports. The thing that we're concerned about with the ships is open ocean. And I know that's hard for you to do, Captain John, but that's something we would really be interested in seeing in the product would be open ocean currents.

If you'd go to the next slide, please.

It doesn't look like much. Okay. This is Wake Island. And one of our captains gets what he said was a counter-current down

near Wake Island. The rest of us all kind of scoffed at him. And he swore that "No, no, my ship loses at least a half a knot, maybe a knot every trip between 175 West and 175 East."

And this is again from Applied Weather Technologies. And this is taken off of a weather document and just looking at the current feature that they have.

So in this area of the ocean you would really expect a pretty steady westward flow of current. But somewhere -- I don't know where they get this data from, they've got arrows all over the place. Here's one coming up toward 0.40 degrees. So that's definitely not a favorable current for us. Here's here, maybe 0.70. One 1.00.

If there was some way that we could get information like this that would quantify this and we could then, you know maybe go down and cut around this. Because when we go great circle from here to Guam, we

go actually right next to Wake Island. It's like a mile off of Wake Island when we go here in a great circle. So, you know if we could avoid that by coming a little further south, or something. And I don't know if this tidal dependent even out in the middle of the ocean. But information like that would be great.

Virginia, next slide, please.

A lot of our captains complain, you know they're making great speed all the way out here. You all know that fuel oil is very expensive. It's just gone over $100 a barrel. And we run, even our most modern ships burn about a barrel per mile. So a $100 per every mile that we go. And it's 2200 miles from Long Beach to here. So, you do the math, that's a lot of money in fuel that we spend, and that's just one way. You know, then the ships that I retired off of we go on to Guam, that's 3300 miles. And then up to China is another 1700. And from Shanghai back to Long Beach is 5700 miles. So we use a lot

of fuel. The fuel bill for a round trip is about a million and a half dollars. So if we can avoid currents, it is definitely to our advantage to do that.

Where I'm going with this chart is many of our captains on the domestic service -- and to be honest with you, I never saw the wall they always talk about. The hidden wall that day out. And now that I'm running ashore, I think you know maybe they're just using that as an excuse to why they missed their ETA or something. But, you know if there were any information that gave currents around the islands, and you know like Steve said, he's interested in when they get close to port and obviously because he's piloting in the ship in. But our main concern on the ship would be up to 300 miles to the north and east of the islands when we're coming inland. That would be our main concern.

Yes, I'm a little early on the Q&A. Sorry about that. Thank you.

CHAIR WELCH: Okay. Thanks, Captain. We'll get back to you.

Mr. Robin Bond with Hawaiian Ocean Safety Team.

MR. BOND: Thank you very much.

I hope it doesn't take as long to get up.

But Hawaii Ocean Safety Team actually was founded in 1998 through a mandate from the Coast Guard. And it is actually Hawaii's Harbor Safety Committee.

The first thing that I wanted to do before I get started was to thank you for allowing us to come here.

The second thing was to welcome the new Panelists, and congratulations to them.

And third, is to apologize for my voice which probably will go out about a third of the way through my presentation because I have a bad cold.

Next one, please.

I won't read all those things to you. You read them. This is a little bit about HOST. I think one of the important things that I wanted to state is that we're kind of like a forum. Our Board is made up of representatives from the maritime industry and maritime users. In fact, Brad is the Vice Chair of HOST, and we have people from the Harbor Pilots that are on the Board. And we don't have Matson right now, but they come to our meetings and provide information to HOST.

And our objective is to try to make Hawaii, to make our marine environment safer in terms of accidents and also environmentally safe. And so you can look at some of the things that we do. There's quite a bit more, but these are some of the important things.

One of the things that we just concluded was last Thursday. As a result of the tsunami we had a meeting of about 50 something, 55 people from all areas of the

maritime industry to discuss the things that went well, the things that didn't go well. And, hopefully, we've come up with some ways of improving how we handle tsunamis here in Hawaii in the maritime community.

Next slide, please.

Our relationship with NOAA has been very interesting. Up until 2008 we had no clue -- we had a clue, but we didn't have any relationship at all with your group here. And the reason for that is that our representative, or the person that represented you folks to Hawaii lived on the mainland. And so, obviously, would love to have come over -- Jerry would have loved to come over and gone to our meetings once a month, but I don't think you could afford to send him.

In 2008 Lieutenant Jeffrey Taylor moved here, or he was assigned here and everything changed, and it changed in a very, very positive way. And it's changing in a positive way with Lieutenant Kyle Ryan, who

now attends our meetings.

And the things that they have done is come to our meetings and said "Here's what we do, here's what our programs are. How can we help you?" And I think that this has been very, very important to Hawaii.

We do work with other NOAA agencies. We work very closely with the Weather Service. The Weather Service in Hawaii has had a bad rap up until a number of years ago where you know, the outlook for tomorrow little change; and that doesn't work when you're on a ship, a small boat, a vessel offshore. We had an incident, it was a hurricane hit Hilo and it only hit the Big Island and it didn't hit us. And it's hitting again right as we speak. No.

What happened was I was actually on a fishing boat off of Molokai about 20 miles out. And all of a sudden the weather there just was came -- we were right in the midst of a huge wind, but the weather forecast

was still talking about Hilo. And so when we got back our captain, who was very politically connected, if you will, he was livid. And so what HOST did was take this to the Weather Service and say "Look, you know you caused a lot of problems because here on Molokai you're talking about something going on in Hilo which really doesn't have that much of an effect." And they said "Okay. Tell us what you want." And by God they did it. And now each island has their own service that they can the information out and so we don't have to put up with Hilo when we're off Molokai or Oahu.

So, we do work very closely with them, and of course, the Fish and Wildlife and we do a lot with the Whale Sanctuary as well.

The programs that we've worked with you folks on, obviously the current study which was brought up prior to our discussion here. They've been completed. And thank you very much for doing that.

We also have been trying to look

at the PORTS system. At this point the costing and funding appears to be a problem and which areas to include. But PORTS is something that I think Hawaii could use, and hopefully we can find a way to make this happen. Coast Pilot, of course, is being used and that's something that is being very helpful to our group as well.

Next one, please.

This is something that this brings us to today. And when I say "today," it brings us to today today. We need some help from NOAA because what happened in Japan is going to affect Hawaii someday. Now we don't know when, but all of the stuff that washed into the ocean in Japan is going to find its way to Hawaii. And I know that because I have a very close relation that did a study of currents here around Oahu and a number of things that he put in the ocean, notes in a bottle, actually ended up in the Philippines and in Japan. And so I know for a fact, and the

things that I've found in my lifetime, because I've lived here my whole life and I've walked on the beach many, many years. And the things that we find here have come from Japan. So we know it's coming.

And what's going to happen here is if we get inundated by a bunch of stuff from Japan, it's going to have a major impact on Hawaii. Because the things that come ashore can be very devastating to our tourists and even to the maritime industry with big timbers and parts of houses, or whatever is floating out there, it's going to be contacting us in many ways.

And what I would like to suggest, is there a way that NOAA can help us, assist us in trying to prepare for this activity that's going to hit here? Now, I know it's going to be difficult, and I know there's ways of doing it; satellite imagery or even figuring out ways that -- I don't have a clue, to be honest with you. But we need some help.

And when I say that this is something that's happening today, there was a meeting of some NOAA people, and I don't know where the meeting was, but a comment was made at that meeting by a NOAA person, and I don't know who it was, that they're not going to get involved until it hits the beach. And that's too late. We can't let it hit the beach. If we can figure out a way to either find out ahead of time so we can prepare or maybe even go out and collect some of this stuff at sea. But I don't think that waiting until it hits the beach is what you folks want to have as part of your goals and objectives with something that's as important as that.

So, basically that's a cry that we have is that this is coming and we need help. And that we hope that we can get it from you.

That's pretty much my talk. And I'll be happy to answer any questions after.

Thank you very much.

CHAIR WELCH: Okay. Good. Thank

you, Mr. Robin.

Okay. Mr. Brad Rimmel. Brad, go right ahead.

MR. RIMMEL: Thank you.

Just a little background on myself. I started sailing as a tug boater here in the Island on January 1, 1975. I've been around the state quite a bit.

I asked for your slide. I was going to work off this a little bit. Thank you very much. I'm glad you had this.

And all these readings that you folks made have been very helpful.

With the towing business, and as Captain Bob said, you know I've been involved with towing Matson barges, you know when I was with Hawaii Tug and Barge and Sause Bros. But I'm just going to ride on the coattails of two comments already made about currents. And the currents do affect us in our transit inter-island tremendously, and especially on the Hamakua Coast right here.

And I'd like to keep in mind at Haleakala at 10,000 feet and Mauna Kea at 12,000 feet creates a tremendous funnel effect with the trade winds that normally blow. And that those surface winds are below 10,000 feet. And what happens right in here is just enhanced when you hear the weatherman on the TV say we have balmy trade winds at 16 or 18 miles hour. Then our tugs poke their nose outside of Molokini and all of a sudden we're looking at nice blue skies, but we're looking at a wall of water coming at us, but you'd thank to God was on the other end of it with a white sheet going like this, you know. I mean, it just enhances the seas and that type of thing.

It decreases the period between swells. It's steeper and the wind increases dramatically. But if we had information with respect to currents, because we've seen our tugs slow down dramatically, especially in that area off the Halakua coastline on the Big

Island. We lose anywhere from half a knot to up to a knot. It may not seem like a lot, but our timed arrivals and our schedules are such that it really affects the cost of the voyage, not only for us but for our customers.

If there was some way you folks could look at that; somehow, someway. I know that I heard some comments about there's no future plans about that type of exploration and desire to do that type of thing at this time. And I heard earlier before lunch, and I sympathize with you folks a great deal in respect to your budget and seeing the numbers that you've put up there on the screen. And I understand this may take an awful long time for it to happen. But these currents around the islands are very unpredictable. We don't know which way they're going to come, when they're going to come.

I know that Captain Baker deals with currents off of Barbers Point Harbor that are cross currents right into the channel that

they don't know what they're going to do until they go out there with the pilot boat. And that can change even by the time they get on the bridge of the ship and start coming in.

So, it was nice to see this work being done. And, again, I appreciate it a whole bunch. But those currents, close-wise currents and channel currents are really, really important to us. I could go on and on about it, but I don't want to beat up a dead horse where you folks already heard it once already with me, I mean other than myself.

Some things that have occurred since Jeff Taylor came onboard over here has been really helpful. Captain John, he just did a great job with us. And Kyle's picked up the baton and has run with it. And we appreciate the effort and everything you're doing a whole bunch.

I can't say enough about NOAA. And thank you guys all very much for the work that you do.

A comment about the things that you do do and the products that you provide, and the services you provide. I don't know if you're aware, but I think the average mariner out there really is not aware of all the things you provide in respect to products and services. If there was some means and ways -- and I've tried my best to educate myself of all the things that you folks have, and especially since I have a similar story as Captain Bob here. I have a lot of sea time and I got asked to come ashore as a port captain with Hawaii Tug and Barge for a short time and I'm with Sause Bros. And my wife really liked it a lot more than I did, I assure you. But it's been a great opportunity and I've learned a lot about NOAA since I've been on shore, more so then I was even when I was out to sea.

But if there was some education program or process you folks might want to consider to promote your services and your

product, I think it could be helpful. But that could be a double edged sword because all of a sudden you'll find that maybe a lot of people get educated about what you can do and provide and it's free, and all of a sudden you're going to get a lot of requests and your budget's already been cut. So I don't know how that would work out, really.

It's a tremendous job you folks do, but I think that there's a lot of things that aren't being utilized of all the things that you do do in respect to the people you're trying to provide it for. I think you'd be surprised at how little some folks that really need your product know about it.

Anyway, in respect to some of the things that you've achieved over here in weather reports. We go into Kaumalapau on the Island of Lanai, right there. I notice you have a buoy out there, or did. We rely on that tremendously.

We get the weather report the day

before we load, or the day of that we load. And we make our full decision whether we're going to have any success with this voyage or not that morning. Okay. It's a go. We load, leave that night on Kaumalapau the next following morning. And whether the surge and/or the tide and the current and the wind is going to be what it is predicted is going to be the success story or not of that voyage. And that island does not have a lot of storage. As Captain Steve said, our warehousing is in our transit. We don't have a lot of warehousing. And they're not going to increase the storage area out there in tanks because of just the new regulations and the cost in and of itself.

And if they run out of fuel and we're on a two week schedule. And if we miss one weekend, the next one's two weeks later. So the last load was four weeks ago, we're looking at the lights going out, possibly. So that's how important that information is for

us for just going to Lanai. So, again, thank you. Appreciate it.

I'm going to go ahead and pass it on to the Coast Guard. I know that I've ridden on the coattails of a lot of stuff that's already been said here.

And again, thank you very much for allowing us to be here and talk to you, and for the job that you do. Appreciate it very much.

CHAIR WELCH: Okay. Great. Thanks for the comments.

And then let's go ahead and turn to the Coast Guard and Lieutenant Doug Miller.

Lieutenant, go right ahead.

LIEUTENANT MILLER: Aloha, everyone.

Just as a quick thing, prior to this meeting we had some people do some clear-cutting around one of our aids navigation. Unfortunately, they didn't pay attention to the endangered species plant that happened to

be right in the area. So I've got to go deal with that after this.

First of all, I'd like to say that the United States Coast Guard and NOAA have had a long partnership. And we really appreciate the partnership and good working relationship we've had with all of you.

I've been doing waterways now in the Coast Guard for about eight years, which compared to my compatriots isn't very long but for the Coast Guard that's actually an awfully long time to be doing any particular one job. Through Sector Long Island Sound and then out here in Hawaii.

First, I'd like to focus on what are we providing NOAA and what services does the Coast Guard provide NOAA. The big thing that I would say that we do is in the aids to navigation realm. And what I mean by that is all the buoys, all the ranges, all the private aids to navigation, all the bridge data; all that information is collected by the Coast

Guard. And with the exception of the bridge data, that's put into our electronic systems ATONIS. And then physically NOAA pulls from the ATONIS system and that's where you guys get your chart updates as far ATONIS and everything else goes. And that system works very, very well. And I can't say enough about how well that works.

The same thing goes with the White List. So I think that's a great success.

Another think that I would mention we do partner with NOAA physically on marine debris issues. Whenever our buoy tenders are out, we actually try to see if we can coordinate and go there in the Papahanaumokuakea Marine National Moment and pick up -- I know it's a long word -- debris when we can. So, again, that's a great partnership with NOAA.

Another thing that the Coast Guard provides the local area -- and I can slow down my talking. I'm a New Englander, I talk fast.

I got to remember this is Hawaii. I have time.

CHAIR WELCH: I think I'm following you, but I guess our court reporter is the key person.

LIEUTENANT MILLER: So I'll slow down.

Another service that we provide is the local Notice to Mariners, which is a publication that's put out to mariners that lets people know what changes have been made in the area and what hazards or anything they have to watch out for.

We also do Broadcast Notice to Mariners which is basically just a broadcast over the airways of anything that should become hazardous.

And then we also do, things that directly affect NOAA are the HYDROPACs and NAVPACs which are basically broadcasts that are more than 200 nautical miles offshore.

And with that, we also have our

WLB fleet, which is basically our black hulled buoy tenders. We have three buoy tenders here in D-14 and they are the Kukui and the Walnut which is stationed here in Honolulu and then we have the Sequoia which is stationed down in Guam.

Now how that's important for everyone here is we really, really try to partner with NOAA for the NOAA sea buoys, for the dart buoys, for the tidal gauges; for all these other things that are happening out in the Pacific. They are vessels of opportunity that physically when we're in the area we will try to assist you with working the gauges, working the buoys. And actually, we are allocated X many hours per year physically to help NOAA with the NOAA buoy system.

You know, sometimes because of the size of the buoys, sometimes we can hook them up, sometimes we miss them. It's a hit or miss depending on the weather. So that is a service that we provide.

Services that you guys provide us. It would be a very, very long list if I tried to list everything. So I think instead of listing everything, I'm going to capitalize on what I think we can improve.

The first thing I'd like to touch on is the electronic charts versus the paper charts. Right now there are some subtle discrepancies that we see between the ENCs and the RNCs, and again the Raster charts when you toss those in, too. And I think that from the mariner's standpoint and from the Coast Guard's standpoint it's very critical that we have a seamless marriage between those data streams so as not to create confusion to the mariners as to what is actually there.

A good example of that is the recent confusion we've had with the range lines between the RNC and the ENC. So I think that that's a way that the Coast Guard can provide you possibly better data and that we can try to bring those things into parallel

with one another.

Another issue that I'd like to bring up is specifically chart inserts. Here in the Hawaiian Island, like I'm going to use Lahaina as an example, I've got eight buoys inside of approximately one square centimeter on the highest chart that I can get. There's probably a very easy mechanism in place for us to request inserts to do, I'm not sure of what that is, and I'm not sure the mariners know what that is. So maybe that's something that we can address.

Again, if the chart's not used for navigation and the information is not reliable and it's of a scale that you can't really see what's there, then the chart's no good. So I think that's something. And again, if no one's providing you that information that hey we need a better scale chart, then how do you know that it's not working.

Another issue that's recently come up specifically here in D-14 that we're trying

to address is private aids to navigation, or what I'll refer to as PATON.

What do we do from a charting standpoint when we have disestablished a PATON because the person is no longer maintaining that, but the PATON is still present. The person has not removed it. So technically it's still there, so is it do we chart it? But then who is now responsible for making sure that it's still there, it's maintained and all that other stuff?

So we have this discrepancies because typically with a federal aid to navigation as soon as we take it out of the water, we let you know, it would be in ATONIS that it's no longer there. With private aids to navigation when we disestablish something, it may be disestablished in ATONIS, which is our data system, the physical aid may still be there. So I think that's a discrepancy that NOAA and the United States Coast Guard have to officially work out with one another.

And another thing to echo what was said here earlier specifically in regard to post-storm surveys and recovery, the use of a side-scan sonar team where that can greatly facilitate the reopening of a port. I know we do have some service locally on island, but I know that that's going to be really key should anything significantly happen is to run that sonar, run that data through there to get commerce moving as quickly as possible.

So I think that's the big areas that I wanted to touch upon.

And again, I'd like to thank everyone here for your partnership, and coming out to Hawaii.

And I guess we're open for questions now.

CHAIR WELCH: Okay. Good.

Since Lieutenant Miller is going to have to leave in about ten minutes, let me encourage if anybody has a question directed to him, to ask that. So, Sherri?

MEMBER HICKMAN: Yes. Actually mine is directed to Captain Steve. It's more of a comment, and maybe something for everybody to look into in Houston.

It appears we have the same thing. The pilot boat runs in the Mississippi River for after Katrina; it was Lake Charles after Rita, it was Houston after Ike. We run our pilot boats with our little bathyometers and we look for any big obstruction.

And in Houston, and I've mentioned it to this Panel before, at least those that are still here and not the new ones, but we have actually tried to come up with plans from NOAA for us to have a side-scan sonar on one of our boats. And if you guys sit it here, all they have to do is bring the team in to read the information. They don't have to bring a boat in. They don't have to bring the side-scan sonar. Just come onboard our boat and run the equipment.

We haven't gotten too much headway

with that. But we're willing to even to pay for that in Houston so that we can open much quicker after a storm. So I think that might -- if we get off with it, I think that's something that you guys might want to look into as well.

CHAIR WELCH: Thanks, Sherri.

Anybody else that has a comment or a question particularly for Lieutenant Miller? Yes, go ahead, Lawson.

MEMBER BRIGHAM: Yes. I wondered if the Coast Guard had put out any information, safety bulletin or something, about this potential deluge of debris across the Pacific Ocean because maybe Matson or somebody will find it as they transit the ocean.

I've heard about it because we think in Alaska in will come up enough across the Pacific and reach the Aleutian Chain, and it might be nuclear debris; who knows? And so it's an issue.

Coast Guard sending anything into Washington or to the world on this issue?

LIEUTENANT MILLER: We actually had direction from Washington to run something in the local Notice to Mariners, specifically in regard to potential debris floating from Japan. It should be in the local Notice to Mariners, but I can check that when I get back and make sure that it is actually being included in it.

CHAIR WELCH: Yes. Jeff?

MEMBER CAROTHERS: Yes. Jeff Carothers here.

Yes, I kind of want to address your question, I think two of you had a question on the quick turnaround on survey after the event, side-scan, or whatever. Is that required in NOAA's bailiwick or is it more -- I know I'm from California. I mean, the Corps of Engineers does a lot of that type of clearance, even private industry does a lot of that type of cleaning up. So I'm just

wondering if the Corps of Engineers has any equipment and people here to help clear.

LIEUTENANT MILLER: Corps of Engineers has some equipment here, but they don't have anything that's capable, that I'm aware of, for side-scan sonar or anything like that.

MEMBER CAROTHERS: How about the Navy.

LIEUTENANT MILLER: Now the Navy may, or private company may. But then the problem is you're going to run into with that is you're talking about legal liability.

MEMBER CAROTHERS: Yes.

LIEUTENANT MILLER: It's, you know I can take data from the Army Corps of Engineers from NOAA and that's good for liability. If I take information directly from the pilot boats, now who has liability if there's actually something there? So that's something I would run by our legal department prior to moving forward with that.

I think it's good information to consider prior to opening the port, and Ms. Rehnquist would probably have an interest in that as far as from the Captain of the Port reopening the port goes. But I do think that there's probably a legal issue there that would need to be worked out first.

MEMBER CAROTHERS: If it's coordinated --

LIEUTENANT MILLER: Yes, if it's coordinated it's fine.

CHAIR WELCH: Lieutenant Ryan?

COURT REPORTER: Could you use the microphone?

LT. RYAN: Oh, yes. Sorry.

I sit on a group with Sector Honolulu with the Navy and some industry folks. If Honolulu Harbor were to be shutdown due to a catastrophic event such as a hurricane or a tsunami or major earthquake, or something, the Maritime Transportation Salvage Recovery Unit, which is kind of headed by

Lieutenant -- and Brad's online coming up with contingency on how we're going to get stuff to Hawaii although the harbor is down. And one of those has to do with using Pearl Harbor and some of their facilities. And a part of that conversation has been if we wanted to get the port open without any salvaging, it has side-scan equipment that we could put on any boat. And they've agreed to let us use that provided there's not a national defense mission. You know, they wouldn't use it to update any charts, but that would be a tool that a Captain of the Port would use it, you know at her discretion, it's available. But there's -- you know, it's a liability thing. They're going to provide even the operator. But he's not going to say "Oh, yes, the channel's clear." You know, that's up to the Captain of the Port. But we do have some assets here, but not like at NRT.

CHAIR WELCH: Okay. And let's have a comment from the Corps of Engineers.

Why don't you come on up? And speak into a mic, if you would please.

MS. PODOSKI: My name is Jessica Podoski, I'm from the Corps of Engineers, so I just wanted to address that.

We don't have side-scanners on our capability locally. Typically Portland District is our survey office. And they come over. We just don't do enough out here to maintain that equipment.

CHAIR WELCH: Thanks.

Okay. Joyce Miller had her hand up.

MEMBER MILLER: There is a multi-beam capable launch out here. It's used for Benthic Habitat mapping. It sits in the Port of Honolulu at Pier 45. It's a NOAA vessel. Again, it's a question of habitat mapping versus nautical charting. This launch was used to make the Honolulu Harbor recent survey. In collaboration with Coast Survey they sent people out here to run it or to run

the survey, the launch was used. And the person that's in charge of the launch right now will be here on Friday, Dr. John Rooney. But it's something that's in discussion with Coast Survey.

We've also used in Rota, Tinian and Saipan harbors for official charting surveys.

So it is capable of that, but it's an asset that's funded by primarily habitat mapping for the coral program.

So we've had various discussions with Lieutenant Ryan and so forth about how better to possibly use that asset here locally. And also with Army Corps and also with Coast Survey. You know, a variety of groups.

CHAIR WELCH: Okay. Yes, if you could identify yourself and make a comment, that's be great.

MR. BALSER: Yes. just a quick remark. My name is Richard Balser. I'm with

PACFLT but representing the Naval Metrology and Oceanography Command.

And one of their assets is the Fleet Survey Team, which is specifically on a fly away team recall during the hurricane season. With 48 hours notice they can be out to wherever displaced with their fly away capability, which includes either a boat opportunity or one of their boats that includes side-scan sonar and multi-beam capability. And we have that coordinated through Pearl Harbor through Emergency Operations.

If there is an event requiring rapid port clearance, that's a viable option for executing a rapid turnaround survey.

CHAIR WELCH: Okay. Good. Thank you.

Robin, I wonder if do you ever as part of HOST ever have sort of themes to your meeting and would a theme be trying to bring all the various people that have interest in

this or possible assets and discussing some kind of cooperative arrangement -

MR. BOND: Yes. Basically, that is one of the things that HOST tries to do is act as a forum to bring groups together. So if something comes up where we need to get the Navy and the Coast Guard and maritime group together, we can do that. In fact, we did it just recently, we've done that type of thing. So, yes, we can do it to answer your question.

CHAIR WELCH: All right.

MEMBER MILLER: One comment about Robin's question about marine debris. There is a NOAA Office of Marine Debris. I mean, you can simply Google it. It's quite easy. But there's also a group here that actively takes marine debris out of the northwestern Hawaiian Islands, and also locally. It's a NOAA group.

And so I can't say I haven't been in touch with them. But, you know if anybody were bracing for this onslaught of marine

debris, it would be that office.

MR. BOND: And I fully agree with that. And I've been involved with the northwest island cleanup since it began. I've been on that committee.

And what I said today, there was a meeting and I have no idea where the meeting was, but it was reported to me just at lunchtime that somebody, a very informed person, let somebody know, they called me that NOAA had said they weren't planning on doing anything. And I don't really think that's going to happen, but I just want to let you folks know the importance to Hawaii for some kind of a heads-up or some kind of, I guess trying to figure out what goes on before it gets here and how important that's going to be for us and allow us to prepare for it somehow. I don't know how that's going to be.

But thank you very much, and I--

MEMBER MILLER: And I would contact the Marine Debris folks.

MR. BOND: Absolutely.

MEMBER MILLER: And they could let you know what's what.

MR. BOND: Yes, we do work with that group. Yes, we do.

CHAIR WELCH: Okay. I'd also like to acknowledge the presence here representing the U.S. Navy, of Lieutenant Major. And thank you for coming. He doesn't have any official remarks, I don't think. But I invited him. If we say something that inspires him or annoys him, to feel free to come up and participate in the discussion.

We appreciate you being here.

Okay. Did we have some other comments?

Captain John.

CAPT. LOWELL: To address Robin's comment. Number one, is the person who made that statement was me. And I spoke somewhat hastily and probably out of turn there. That was at a meeting we held over at the Pilot

Station yesterday morning.

I guess I was aware of the marine debris coming. My notes coming out of that meeting were pretty clear to myself that I was willing to approach the Marine Debris -- and get them involved and make sure they're aware.

I don't know what their thinking is on this or how they're handling this, but if they are actively working on this, then they need to communicate out what it is they're doing, where it is they're going. If they're not, well then that's maybe something they should think about.

So that's kind of my take away here on the marine debris issue.

MR. BOND: Thank you.

CAPT. LOWELL: And I Take full credit for the remarks.

CHAIR WELCH: He's a stand-up guy.

Gary Jeffress?

MEMBER JEFFRESS: Gary Jeffress.

Mr. Bond, what is the actual pre-

concern about the marine debris? Is it navigation problem or is like a hazard for surfers, or is it just the fact that it's unsightly?

MR. BOND: Yes, and more.

Actually, the way I would look at it if I were personally trying to give some idea, it's going to break up between Japan and here. The house that you saw floating off of Japan, it's going to deteriorate to some degree. But there are large timbers, there are trees and we don't know if any of this stuff is radioactive, but we'll have to find out. But we don't know what it's going to be when it gets here.

Some of the information that I have is that it can take up to years to get from one place to another. It gets caught in a gyre and, as you all know, it spins around for a while and then when the conditions are right, parts of it deflect off and come ashore.

Now it's going to affect our tourism if it starts coming ashore in Waikiki. If big things start coming ashore, it's going to be a hazard to a small boats, maybe even large vessels, I'm not sure. But if it's a tree or a timber, it can be a hazard to large vessels as well.

But we're concerned about just knowing what it is so we can be ready. We can work with the state and get them to understand what's coming. And then we can have a plan in place before it hits our beaches as to what we want to do. A lot of times it's closing a beach. And if something's coming ashore -- I've actually closed a number of beaches myself because of timbers and oil, and other thing such as even box jellyfish, we closed because of that.

So, it's just giving us a chance in Hawaii to be prepared; that's all it is.

MEMBER MILLER: Well, there's the other aspect of it also that, you know how

much plastic is washed out to sea? And for our sea life, I don't know if you've seen some of the pictures from Midway and so forth, these birds that just stuffed full of little plastic pieces or monk seals and turtles that are entangled in nets and so forth. But you know, that's more up in the northwestern Hawaiian Islands. But I can't imagine how much, you know besides trees and houses, how much plastic was washed into the ocean and is going to end up on somebody's shores.

CHAIR WELCH: Okay. Other comments or questions from Panelists?

Let me ask a couple of questions, if I could.

Captain Steve, on some of the pilotage comments you made. When you have large cruise ships like the NCL interisland cruise ship, is it using a pilot each time it enters the harbor or each pilot each day?

CAPT. BAKER: We work with them in the beginning when they started. But they are

a U.S. flag vessel. It's one of the only large ships that are registered that way, so they have a U.S. crew. Officers are U.S. citizens with licenses. And after they've made their trips and obtained the number of round trips they needed, they began getting their own pilotage and now they do all their own work.

CHAIR WELCH: Well, what happens with the foreign-flagged ship that comes in from Mexico and then does an interisland --

CAPT. BAKER: Yes. Any other foreign-flagged vessel is required to take a state pilot.

CHAIR WELCH: Since they're entering a port, the way I understand it virtually everyday, does your pilot just stay on the ship?

CAPT. BAKER: Yes. If the ports are in succession, we don't have layday in between. We don't do the anchorage ports. And they do go and anchor off of Liana and off

Kona. And those are not state pilotage waters. So if they've got that in between, we'll be getting off because we don't stay on board for that week. But otherwise, I just did two weeks in the neighbor islands. I was on the Carnival Spirit for several days. And that usually lends to my wife accusing me of not working.

CHAIR WELCH: How many actual ports are there in the state, or about?

CAPT. BAKER: Well, there's two on Oahu. Two on Kauai, one of which we don't have any deep draft traffic going into the port, which is Port Allen. We used to until 1992 when they had the hurricane at that time, there was damage to the main pier there and it's never been repaired. So, that's all small boat traffic into that harbor now.

Maui only has one port deep draft. That's Kahalui. And then we have two on the Big Island, which is Hilo on one side and then on the northwest at the top is Kawaihae. And

we provide services to all those ports.

CHAIR WELCH: Okay. Thank you.

And the Matson cattle ships, are you still running Matson cattle ships?

CAPT. LAMB: Well, we bring the livestock from the neighbor islands to Honolulu by barge or vice versa if they're coming from the mainland and going to the islands. And for some reason, it goes both ways.

CHAIR WELCH: We're not visiting a cattle ship tomorrow?

CAPT. BAKER: No. They do bring pigs on a regular basis, though, to the island. Live pig.

CAPT. LAMB: Yes. We'll bring horses, cattle, goats, sheep, dogs out here. Mostly the other way I've only heard of cattle going out. But, yes, we still do that.

And the Mahi Mahi, I don't know if they're bringing any in tomorrow, but as we drive through the terminal if there's any,

I'll point them to you. They're easy to spot, those containers.

CHAIR WELCH: Okay. Is there still a Lurline in the Matson fleet?

CAPT. LAMB: The Lurline is laid up right now in Oakland.

CHAIR WELCH: Okay.

CAPT. LAMB: And we have a couple of ships in lay-up status, two right now. And they're there for shipyard reliefs of vessels when they go to the yards.

CHAIR WELCH: Okay.

MR. RIMMEL: I got a funny sea story to tell you about cattle barges if you want to hear it on a break.

CHAIR WELCH: You don't think we ought to put it officially on the record?

MR. RIMMEL: There's some colorful language.

CHAIR WELCH: Okay. Brad, can you give us a little bit more. I'm not sure we're going to officially see a tow and barge

combination tomorrow. Maybe we will incidentally. But can you sort of draw a picture with words for some of us as to types of vessels and barges, tows that you run?

MR. RIMMEL: The tug and barge industry here handles all -- a good into the 90 percentile easily of cargo arriving in -- we like to call them outside islands from here on Oahu. But if we were sitting on Kauai right now, they would call us an outside island.

All the fuel, for example, goes from Honolulu to all the islands. All the fuel that they receive is by barge.

The great majority of the cargo going to Maui, the Big Island, Molokai, Lanai and Kauai is all by barge.

Now, Young Brothers is a primary mover of general cargo, and they're controlled by the PUC, the Public Utilities Commission, and they have their tugs that tow them. They have a regular tariff scheduled and rate that

they provide.

We at Sause Bros are contracting out boats out to Matson. We haul the petroleum barge for Gasco. We haul a fuel barge for Chevron, a 65,000 barrel barge, mostly clean product, nav gas, diesel and your unleaded and premium gas for the cars and gas stations.

Tesoro has a group that is taken care of by KC Towing. You may have heard of them. They were just bought out here recently by Kirby. But that's all by barge also, which is bunker fuels for the electric plants for Miko and Hiko and the Big Island, Niihau and Maui. Kauai gets it from them also.

The scheduling is critical. If we have weather systems, and they don't have to be extreme weather, but as Captain Steve mentioned, if you have a weather time, the north swell which the surfers love to death an you've all heard about it in Waimea and Makaha and Sunset Beach. But when those waves come in, it closes out Kahalui, for example. And

if you don't get into Kahalui, that's your only commercial port on Maui. And if they don't get fuel in there, if they miss two weeks, they start running out and it gets critical. Really critical.

One of the big problems we're experiencing also is berth availability. And a lot of our vessels from when I first started, we used to double tow all the time with barges averaging between 240 to 260 -- 280 feet. Now we have barges in the 300s. They're talking about bringing in barges now of 400 feet. Now you're competing with the passenger ships. You're competing with the fuel barges that are bigger. The first fuel barge that I towed over here was only -- it was a big barge, a 55,000 barrel barge, now we got 65,000 barrel and upwards to 70. And it's just the berthing becomes a real nightmare.

If something happens because of weather, everything just starts snapping up in respect to, you know to your swells and surges

and whatnot.

The surge alone sometimes can keep fuel barges from discharging. We've found that to be a problem even with the container barges. You know, if you get more than a three foot surge in a self-loading discharging container barge dropping those boxes down onto the chassis it get a little precarious when you're doing all that type of thing.

So when you folks give us a lot of this information, as I mentioned in Lanai, the surges will either make or break your ability to get in or out of port. And some ports like Kaumalapau or Kaunakakai on Molokai, that type of thing.

So in scheduling it's just critical. It's really critical. It's your warehouse system essentially for the stay.

When you talk about heavy weather issues, we'll get underway with the tugs and barges a lot of times, but you know we'll just end up doing circles off port waiting for the

best window we can get to get in or out.

The wind issues in Kawaihae become really, really important. It's not a real difficult port to get in and out with respect to maneuverability, but when you've got those strong trade winds, as I mentioned, with the islands and if it comes up on Kawaihae on the one side it's real dry. So during the day as the land heats up, sometimes you get, as the Aussies might say, these real willie-willie that just wants to come screaming down the mountain. You'll see this dust cloud starting to come. You know you got about 8 or 12 minutes and then once it hits and wind will peak up to 30-35 knots like that.

So the wind meters that we've gotten inside Kawaihae Harbor have been really helpfully because our guys coming off port are shortening up tow a mile and a half out, and they're doing their best to look inside to see what we got. But then we have people with cell phones now, which is great. My time we

didn't have that. But you know you're finding out how's the wind inside. It's not uncommon sometimes when you go in there and here comes the wind, and you got to do a round circle and get back out. Because, again, these barges have increased in size. And as any mariner knows, you got all that wind surface on container barges or some of these roll on/roll off barges that are quite high, it's just -- you know, it just blows you right off the pier. You don't have a chance.

One of the issues we have in some of the commercial harbors, such as Kawaihae, a little bit in Barbers Point, you're sharing it with private users of the private boat community. So you have some issues with that. But that's nothing you folks really can do anything about. But it's just another issue we have to deal with.

If we've been Kawaihae before, we come in at night and some private boat came up from Tahiti or southern California and decided

they're going to anchor up at Kawaihae Harbor at 0300 and we show up at 0545 it's still dark, and what's that white little blurb over there. And it's a sailboat. And the DLNR doesn't know a thing about it. You know, that's always fun to deal with, you know that type of things.

One of the things that Coast Guard mentioned was the private needs aids in navigation. Keehi Lagoon there's a range light that we had a wind storm a number of years back. I want to say at least four or five years, but the aft range board fell down. We have a channel that's only a 100 feet wide. We go in there with a 6,000 ton sand barge for Ameron, it's a commercial pier but it's in a private boat harbor. So the state is passing this hot potato back and forth with who is responsible to fix it. And in the meantime we still went to get in there with that barge. And the board hasn't been fixed. And I don't know what's going to happen with that. And

that's a navigational aid issue.

And we got very little in respect to navigational aids even in that channel. It's a skinny little channel, it's only 100 feet wide, you know.

Scheduling. You asked me about that real quick. Young Brothers goes into Hilo twice a week. Kahului three times a week. We got into the Big Island with the Matson barges twice a week to Hilo, twice a week into Kawaihae. We go into Nawiliwili once a week, Kahului three times a week. And Kaumalapau with the fuel barge once every two weeks. Into Kahului, Hilo with the fuel barge once very week. We're throw in Kawaihae every fourth week. Kaunakakai and Molokai once very fourth week with that same fuel barge. And also in Port Allen on Kauai with the fuel barge. So that's just us for example.

CHAIR WELCH: Okay. Good.

Yes, Captain?

CAPT. LAMB: If I could, you asked

about seeing a barge operation. When we're on the dock tomorrow you will see two of our barges, the Haleakala and the Mauna Loa. Those are both fully -- what's the word I'm looking for? They have a container crane on them. I can't think of the word --

MEMBER DIONNE: Self-contained.

CAPT. LAMB: Self-contained, yes. Sure.

And one of them if we get it out on time, will leave at 10:30 tomorrow from the Matson terminal. So we might actually see that pull away. I think we're scheduled to leave here at 9:00. If the tour takes an hour on the ship, we could be there when she's scheduled to leave.

There is an Aloha cargo transit barge that's coming into Pier 1, and we can probably see that operation if she's coming in at 1100 tomorrow. So there is a chance we'll see barges leaving the port.

CHAIR WELCH: Well, I know back on

the mainland there are extensive barge networks, both within the rivers and up and down the coast. And a lot of people just don't realize it. They think ships are ships and they don't understand seagoing barges and that type of thing. And, of course, that's even more prominent in the transportation network here. And so it's another aspect of the commercial maritime transportation that --

MR. RIMMEL: How many folks are going on this tour? Twenty, I think.

CHAIR WELCH: Tomorrow?

MR. RIMMEL: Yes.

CHAIR WELCH: Yes, just pretty much the folks you see sitting here at the table, I think.

Several of the panelists made some comments about the possible desirability of a PORTS system in Hawaii, particularly in some of the features that you'd like to see. You know, this is something that this Panel has

been talking with people in other locations, either nav port systems and would like them. And, you know, people that have been wanting them up until now who have sort of gotten their act together and pushed hard have been -- NOAA's been pretty good in working with people to establish systems. But the key unanswered question for just about everybody is: How do you fund the maintenance? And NOAA has little, if any, money for that. And the trend of helping to contribute to maintenance for a few years, and that may have been a budget roadblock. And there's no set template nationwide for what the local share of how the local folks raise their share; whether they get it through state appropriations or some kind of an assessment on the users. And it's sort of a glaring unanswered question of how the ports -- through the ports community.

And so if I had one thing to say to you all, if you could get your act together

on the maintenance money, you'd be able to make a much stronger case to the Federal Government about help in establishing them, even in these constrained Federal budget times.

Rich, do you have any comment?

MR. EDWING: Yes.

CHAIR WELCH: It's within his portfolio.

MR. EDWING: Right. So we had some discussions yesterday and the interest was expressed. But it sounds like there's some still some discussions going on locally about how many sensors and where, and knowing how much it's going to cost. So I certainly offered to provide assistance with somebody to help maybe refine those requirements where you really need stuff, give you some rough cost estimate, those sorts of things that can maybe help you put together your business case, and also to share experiences from some of the other PORTS system, how they've gone about

pursuing funding and try and get that part of it together as well.

So we're certainly more than glad to share those experiences with folks.

CHAIR WELCH: There have been two or three economic studies, the most recent one being up in the Columbia River about the economic case for having for a PORTS system. And you might want to, if you haven't seen it, get those studies and see what they say about these other locations and see how that might relate to your local situation. Because that is the basis on which to make a credible case, and they really have magnified economic benefits for this type of expenditure.

MR. RIMMEL: And we hear you load and clear when it comes to the finance aspect of it. But one of the issues that we deal with here is we don't have a port authority. I wish we did most of the time.

The Department of Transportation has three divisions within it: Airports,

highways and then harbors. So it's strictly run by the state. So it's an issue. It's an issue of security, especially we've just been pretty successful with this security group or committee getting some grant money for that. I've had the opportunity to be involved with that committee. I'm also involved with the area Maritime Contingency Planning Committee and we talk about a lot of some of the other issues that you've brought up in respect to the respect to the availability of some of the equipment to have to bear when we have to reopen the port because of an emergency and that type of thing that Kyle was talking about.

But it's been a chore with Department of Transportation and Harbors Division when it comes to that kind of stuff. I'll just say that.

CHAIR WELCH: Okay. Other Panelists? No? Okay.

Captain Lowell?

CAPT. LOWELL: A couple of questions.

The HOST meetings that you put together and organized. Can I assume that there's also the environmental side that's there and so they're bring in their concerns based on issues that are at hand?

CAPT. LAMB: Yes. Our meetings, we have a meeting once a month for the Board, and it's open to the public. And we do get people that just drop in. And our Board is made up of 14 individuals with backups. And it covers everything from recreational boating to I'm a citizen. That's my position on it. And I don't know why I'm the Chairman, but partly because of him. But they're open.

We try to get as much of the maritime people as possible. And it does impact a lot on the environment as well as regular safety.

And we're not just the port safety team. We handle all the water as well between

the islands and around the islands. Anything having to do with the ocean we get to do all of that, which is kind of exciting and kind of fun.

CAPT. LOWELL: Okay. Thank you for that.

My next question would be contrasting between what Brad was talking and what Bob was talking about being on the ocean current side. But what is cost involved in one of the deeper ocean buoys? Is that something that you've completed or is that --

MR. EDWING: Well, that's really NGDC the offshore ability that they've been adding currents capabilities to.

CAPT. LOWELL: So between the islands and any of these areas?

MR. EDWING: Well, and I'm thinking there may be two possible solutions between the islands. I don't know what HFR assets are in place here. But you're looking for kind of real-time data or a good forecast

model, I think to help with that issue. So that was the notes I've made to myself to look at those two possible solutions for that.

Obviously, the recent survey we do will help with the predictions. But if those winds are blowing all the time, there'll be a cap for the predictions. But if they're more out the side, then they won't. But a model that takes into account when those winds kick up.

MR. RIMMEL: We don't have as much a problem with the winds as we do the current.

MR. EDWING: Right. As I was saying, the winds are probably help drive that current.

MR. RIMMEL: You'd think so. But we get an opposite current on the coastline of opposite what you think you'd get with the normal trade winds, which is pretty unusual.

MR. EDWING: And again, this is recent current survey. But if we have information to be able to understand what's

going on, we may able to do some --

MR. RIMMEL: Yes.

MR. EDWING: -- forecasting which I think will help you.

MR. RIMMEL: Very much appreciate it.

MR. EDWING: And if there's HFR assets on the island, which I'm not sure for real-time information.

LIEUTENANT MILLER: There's also considerable capability at the university. I don't know if any of the folks that were talking about currents, you know there's the sea level -- Dr. Marra, do you --

DR. MARRA: Well, I don't know the exact details. I used basically the ocean observing system.

LIEUTENANT MILLER: Yes, so I think there is considerable work that's done at the university on these current models and so forth. It might be worth connecting with those groups to see, you know, who is doing

what in terms of local current modeling right around the island.

CAPT. BAKER: Yes, UH does have a website and they've got a lot of their data up and it's almost real-time. I think they have data like every 20 minutes or something. They've got buoys off of Honolulu Harbor and we have been utilizing those. We have to convert them because they're not in knots, it's in -- I don't know, meters per second or something. We've been trying to see if that correlates with what we're observing. And sometimes it does, sometimes it doesn't. But I think it has a lot to do with their observation locations and water depths. You know, they're not out there for us. They're obviously trying to fulfill whatever project they're on. But at least it is up there and we do utilize it.

Another thing that I meant to mention earlier was that NWS does have observation sites in the harbors which also

are tied to real-time on the internet that we can look at. I look at. I just can use my phone to look at them before I go into a port. Nawiliwili being one that we look at all the time because if I'm riding a ship and I'm on my way inboard, I could be a few miles off, tie in, take a look at what the current observation is and what its been as far back as I want to look. And that's been very helpful to us to be able to look at wind direction and wind speeds and the trend. So we do appreciate that. That helps. That helps tremendously.

CAPT. LAMB: I think what the University does, I've been to a couple of their meetings. And it was more close in to the islands, and Brad definitely would be interested in that. But Matson, we'd still voice the opinion we'd like something further out.

CHAIR WELCH: Yes, Michele?

MEMBER DIONNE: I guess I'm not

informed about what sort of IOOS observing association there is here in Hawaii. But I know the association in the northeast is very interested in placing buoys in the locations where they would be helpful to various interest groups. So if there is some way we brought that group in and cooperate a little bit with this group to determine useful locations for buoys to address some of these issues.

I think one of the things that we talked about at orientation in Silver Spring is that there might be some sort of dialogue or conversation started up between HSRP and the back up work for IOOS.

CHAIR WELCH: IOOS, for people that aren't familiar with the term is -- it's a national term for Integrated Ocean Observing Systems. And there's a special official in NOAA Headquarters that the mission is IOOS. And this Panel in the past has pressed IOOS a little bit about trying to be a little bit

more open to the -- and IOOS has different regional components. So there's a New England IOOS and I guess there's maybe a Western Pacific IOOS.

MEMBER DIONNE: There are quite a few.

CHAIR WELCH: Well, anyway, I'm probably going to get in trouble for saying this, but my impression is that IOOS has been sort of founded by scientists primarily for the benefit of scientists and that ocean users have to sort of push their way in. And if you push enough, they start saying "Oh, yes, we could sort of modify our systems or adjust what we do to do what we want we want to do and do what you want to do too.

But I think some of the IOOS folks are not oriented to think that way initially until somebody knocks on the door. So, I don't know if that's true down here or not.

Yes, Jessica?

MS. PODOSKI: Hi, I'm Jessica

Podoski, Corps of Engineers.

I'm not a super active member in our PacIOOS here, and John is probably a little bit more active. But just to bring a little bit of that to light, we do have the PacIOOS here and then our subgroup is the IOOS.

And it is a group of major scientists, university. But they've done a lot of work with trying to assess coastal hazards and make that information available to the public.

They're also, I believe, working on getting two new buoys out that are going to coming this fall.

So I would suggest that they have a really good website that they're working. It's just PacIOOS.org or IOOS.org, I believe. So that's definitely work taking a look at that. They tried to make all of that data readily available and do have meetings where they take public comment and things like that

into account. But I would suggest checking it out. We have a pretty strong IOOS in the Pacific.

CHAIR WELCH: Thank you.

Other comments? Yes, David?

MEMBER JAY: I'm sort of an outsider looking in --

CHAIR WELCH: You might want to pull that a little closer.

MEMBER JAY: Oh, sorry. A couple of issues, I mean there's a funding problem, which is very uncertain for them, and then there's just the random regional variability, all sort of different ways that a lot of them are going through a transition. It was founded by a core group and now they've got to make a decision as to how scientific and how operational.

And then the transition would be, this is our program, it's our money in it, and hope that this is a competitive program that is open. So they've got a lot of questions to

answer, a lot of disarray, at least from what I understand.

CHAIR WELCH: Okay.

MEMBER BRIGHAM: Well, I'll just put in a plug for AOOS. We have one in Alaska, it's very robust. It's all driven by stakeholder interests because we don't have a lot of observations and it's kind of we're starting up, ground zero.

We've gone out robustly over a couple of years to get the stakeholders to tell us what they need. And one, of course, one issue is sea ice, which is a little different than the Great Lakes. But I think ours is actually stakeholder driven.

We've had scientists run a few projects, currents off Valdez and Prince William Sound. So there have been some scientific components to work the modeling issues. But the rest of it is open and above and we've kind of went around the state and talk to all the stakeholders and other actors.

CHAIR WELCH: Okay. Thank you.

All right. Well, if we don't have any other comments, let me thank all of our panelists for a good discussion. We appreciate your observations and we would like to stay in touch. If you have any further thoughts after this meeting, please feel free to share them with us.

And this has been some definite contribution to our work. So, thanks to everyone.

(Applause).

CHAIR WELCH: Okay. We have periodically through the day had various, the NOAA people were at the table or beyond the table speak or be identified. But I don't think we have comprehensively introducing everybody from NOAA. So if we can, why don't we get all the NOAA folks in the room to stand up and then just go around and identify yourself and your responsibility, please.

So, everybody stand up together.

Okay.

MS. HAMILTON: I'm Laura Hamilton and I'm stationed here on Honolulu. And I am NOAA's Regional Coordinator for all of NOAA in the Pacific Islands.

CHAIR WELCH: Thanks, Laura.

MR. CARLSON: I'm Edward Carlson. I'm with National Geodetic Survey. I'm the Pacific Region Geodetic Advisor.

CHAIR WELCH: Great. Thank you. Everybody else.

MEMBER MILLER: John just walked out.

CHAIR WELCH: He values his anonymity.

Okay. We are at the point of the program where this is the open mic part of the program. We don't want any people to sing or tell jokes, but this is the opportunity for anybody, a member of the public or other federal agencies that wasn't on the agenda to have a chance to be recognized. So, do we

have anybody that would like to take advantage of that?

MS. WATSON: Ed, we have someone.

CHAIR WELCH: Yes. Stand up, introduce yourself. Welcome.

MR. SWATLAND: I'm actually another NOAA person.

Good afternoon. My name is David Swatland. I'm the Deputy Superintendent for Programs and Policy at Papahanaumokuakea Marine National Monument.

Thanks for the opportunity to speak today.

I'm here to represent the monument and say that the atolls, coral reefs and deep water habitat of the northwestern Hawaii Islands are home to an incredible wealth of natural and cultural resources. One of the last places on the planet to exist much as it did before human contact.

There's also only one of 11 PSSAs, or particularly sensitive sea areas, designed

by the IMO and was recently selected by UNESCO as this nation's only mixed world heritage site. As such, the northwestern Hawaiian Islands deserved the highest possible level of protection that we can provide them. We can only do this if we know what is out there. Without accurate, comprehensive and up to date mapping data over, on and under the water we cannot effectively monitor the impacts of global climate change such as sea level rise and coral bleaching, nor can we adequately determine the impacts of habitat change or natural events such as the recent tsunami which caused significant alteration of the northwest Hawaiian Islands ecosystem.

We also potentially put that ecosystem and our own personnel in harm's way by not providing them precise navigational data for operating vessels in the monument.

We all know that the tools to accomplish this effort exist. It's a question of prioritization. On behalf of all seven of

Papahanaumokuakea Marine National Monument's co-managing agencies I respectfully request your highest level of support and advocacy in helping us protect this sentinel site and one of the planet's most incredible treasures.

Thank you.

CHAIR WELCH: Okay. Thank you.

And don't sit down. Let's see if we have any questions.

Tell us a little bit more about the physical attributes of the monument. Because some of us are more familiar than others.

MR. SWATLAND: Okay. The monument was designated in 2006 by President Clinton. It stretches to the west northwest from Nihue, the last of the main Hawaiian Islands. It's 1200 miles long by 100 miles wide. It stretches all the way out to Kure Island, which is a good bit west and north of here. The water is a lot colder, the water is a lot rougher, too, a lot of the time.

It's a 140,000 square miles, only five of which is emergent land. The rest is atolls, reefs, coral reefs and deep ocean habitat.

There is an incredible array of wildlife out there. It is a nesting area for 14 million seabirds. It is the last stronghold of the Hawaiian monk seal. All kinds of turtle nesting areas. And an underwater habitat that we are just beginning to truly explore in terms of coral reefs and fish and other underway life.

It's a truly incredible place. If anyone goes out there, it's a life changing experience for anybody who goes out there.

And there are a number of gaps in our mapping data, and it would be nice to have the baselines before we embark on any vulnerability assessments or to be able to measure the impacts of things like the tsunami, which occurred a couple of weeks ago which did make some significant changes to

island structures, vegetation, habitat and who knows what underwater because we haven't been able to get out there and look at it yet.

CHAIR WELCH: When you indicate that there is a need for various types of nautical charting and that, are you talking about habitat types of charts and maps? Are you talking about nautical or shoreline mapping, or some combination. And --

MR. SWATLAND: Yes, all of the above.

CHAIR WELCH: But has the staff or can the staff develop some kind of a summary of priority needs?

MR. SWATLAND: We can do that. We have been going at this kind of piecemeal the last couple of years. As a matter of fact, I'm in the middle of writing up a statement of work to contract out for some bathymetric LIDAR work in fiscal year '12. But we would be happy to provide the Panel with a prioritized list of what we're looking for.

CHAIR WELCH: Well, I think given the vastness of the area and the different types of work that ideally would be done if the resources were there, some degree of prioritization would be helpful to the Agency and people that have to do budgets and things. Just a request.

And we need work. People are going to say "Oh, my gosh that's a pretty major task" and you're in competition with other folks. The more specific you can be about what you consider to be really critical I think helps you make your case.

MR. SWATLAND: We would be happy to formalize that in a memo and forward it on up.

CHAIR WELCH: Okay.

MEMBER MILLER: I've worked with the monument in mapping up in the northwest for the past decade.

MR. SWATLAND: Okay. Great.

MEMBER MILLER: And so I'll make

you aware, a report for the coral program has just been completed that pretty much details how much has been mapped and so forth.

But what is Sanctuary's budget, or the monument's budget for doing mapping? Because, you know there have been estimates; oh, it's going to $8 million to do LIDAR up there. I mean it's a huge area. And it doesn't make sense to do piecemeal, that's for sure.

So what is the budget that --

MR. SWATLAND: For fiscal year? Actually, for this year and for next year it's $100,000 each year and that's for both collection and processing. So we've been trying to aim at our highest priority areas and go piecemeal. Because either we go piecemeal or we go nothing at all.

MEMBER MILLER: I mean, that's always been one of the problems is for a LIDAR contract, $100,000 doesn't get the plane there. I mean, it just -- it doesn't.

MR. SWATLAND: We've been working with USGS and also Fish and Wildlife in the past to assist with this stuff, too.

CHAIR WELCH: Juliana?

MS. BLACKWELL: I was going to comment about something similar, which is looking at the other NOAA assets and what's been done, not only from the data collection currently but if there were specific requirements that you had for your mapping and you were looking at contracting that out, just to look at the existing NOAA contractors that we already have onboard in a lot of either NGS' contracts or Coast Survey, et cetera, and make use of the existing contractors that we already have ready to go.

MR. SWATLAND: And, actually, this year as opposed to last, I have hooked up with Jamie Carter at Pacific Science Center and he's got me hooked up with the folks on the East Coast in South Carolina. So we are going to be able to access that EDIQ contract that

they have out there.

So we're going to get more for our money this year then we got last, but it's still a significant amount.

MS. BLACKWELL: Yes. In addition I think to the contracting you're talking about, we have shoreline and geodetic surveying contractors through the A&E contracting requirements. So depending upon what type of survey that you need and what accuracies you're looking for, just realize that there are other contracting mechanisms that are available through either National Geodetic Survey or other parts of NOS or NOAA.

CHAIR WELCH: Yes, sir?

MR. CARLSON: Ed Carlson.

Explain to them how the monument operates. It's not just sanctuaries. What the whole relationship of the monument is. That might give a little background of what's going on, too.

MR. SWATLAND: Well, there's seven

different co-managing agencies. There's two from NOAA, two from Fish and Wildlife Service and three from the State of Hawaii. And each of us have our own budget and our stovepipes and our own approval processes for money. So reaching consensus on where we're going to go and what we're going to do is, obviously, a little more challenging for us then most of the other national marine sanctuaries.

We do end up getting there on most cases, but it is a challenge. So, you know each agency has their own priorities. So that's another reason we've been going at this piecemeal because we have certain priorities, Fish and Wildlife has certain priorities, NMFS has certain priorities. And all of us are in an extremely resource constrained environment.

CHAIR WELCH: Yes?

CAPT. LOWELL: Yes. Just a quick comment.

As you know, you know we have been trying to actively support the charting of the

area. We have engaged with several different groups that have collected data, kind of at ad hoc. We've done a lot of stuff with the University of Hawaii, deeper water survey, some of the coral mapping that Joyce had been doing if we don't already have access to it.

We don't have any active hydrographic initiatives going on out here in Hawaii right now. As you've heard from some of these discussions here today, there's certainly other areas that we are focused on this point. Obviously 100K really is a challenging position to be in when you're talking about acquisition of hydrographic data. I'm not sure what I can do you on that. But I would encourage you that when you do acquire data, that you look not only at your specific needs but look at trying to meet that for our user update whenever possible. I know that brings the cost up. I know with a 100K you're not going to have that. But, you know when we do deal with data that's come back

that's loosey-goosey or fast and furious it becomes a challenge for us to update a nautical chart with that information.

LIDR is a powerful tool, but it's not going to get to all the coral and we've got to caveat all the data in that respect.

So I guess what I'm saying is that we want to help you. We're certainly willing to share our specs and deliverables. We do have in place a contract vehicle with a very high ceiling that we could simply put more money into. Perhaps we could partner. I'm not sure how that's going to work. But we do have LIDR contract that was just released and it's a two contract, LIDR anyway. And maybe we can pool some money together which would enable us to issue contracts.

I think there's a lot of directions we can go there. I feel for you.

MR. SWATLAND: Thank you.

CHAIR WELCH: Any other comments or questions?

MR. MORRIS: Yes, I'd like to make a couple of comments. I don't need a mic.

MS. WATSON: Could you please speak in the mic so the court reporter.

MR. MORRIS: Oh, okay. For the court reporter.

My name is Daniel Morris. I'm the Geospatial Officer for the Commander and Chief of the U.S. Pacific Fleet.

We make very good use of the NOAA products for coverage in the U.S. waters. We consider them to be accurate. They're current. They provide comprehensive coverage. If the rest of my AOR was as well covered with nautical charts like the NOAA charts, I would have much less of a problem then I do have.

There were comments today regarding the overlap of the Navy with the NOAA survey program. The Navy seven T-AGS multipurpose oceanographic survey vessels, five of which tend to be assigned to the PACOM AOR at the present time.

Let me guarantee you there is no overlap with NOAA's survey program. Our ships live and die overseas, all right? They almost never come back into U.S. waters. The only exception there would probably be the Commonwealth of the Marianas Islands and an occasional stop in Hawaii. But we rarely make it back to the mainland.

We leave that to NOAA to do the surveys in the U.S. waters. Occasionally, we might do a training range or a special survey for a weapons system project. But rarely do we come back in the United States. So I don't see any overlap at all with the NOAA survey program.

We rely on NOAA to do those surveys in the U.S. waters. In fact, I wish NOAA was better funded simply because I believe it is in the best interest of the defense of this nation to have NOAA survey all U.S. waters from the coastline to the seaward edge of our extended continental shelf claim,

which I know you are resourced to do. But you seem to apply your assets into the areas of highest priority. The ports that we most commonly use, you tend to maintain very, very well.

The places in which we deficiencies, like the Aleutians, are not commonly traveled by many of the mariners. However, we do occasionally go there.

The additional NOAA products, the oceanographic support products were also used by our forces. It would be nice to see expansion of those programs.

We appreciate the geodetic work done by NOAA. For those of us interested in targeted accuracy, it's very important. And the geodetic networks in the United States and as they integrate with the work that's done by the National Geospatial Intelligence Agency for all very critical to our defensive effort. So my appreciation for that.

And there were comments today

about the resourcing of NOAA. And we go through the same budget drill inside the Navy. I guarantee you that every single year it's a zero-based review. We have to fight to maintain our ships, to maintain the funding for our programs. And the only guidance I can offer to you is detail documentation of every single requirement and get your customers to come on line to say how badly they need your support, your services, your date in order to support whatever it is that they do. That's what we do to justify the existence of our ships. And if you don't do that, I would imagine your survey ships would start to dwindle away over time.

So, I would ask all the customers to do their best to get their cards and letters in, to document what their requirements and to provide a good business case for them to justify the expenses of the resources. Times are tight for all of us and the only way we will defend the NOAA program

is to document the requirements.

Any questions?

CHAIR WELCH: Okay. Thanks very presentation. Questions or comments?

Does the Navy have a systematic way of communicating to NOAA what your requirements are or what your hope is or you preference is --

MR. MORRIS: The geospatial requirements in the miliary are governed by a JCS instruction, all right. And under that instruction all geospatial requirements including those for nautical charts produced by NOAA by mandate go to the supported geographic combatant commander, in our case PACOM up at Camp Smith. And he submits it to NGA. And those that fall under the purview of NOAA, NGA will communicate to NOAA for us.

So, we don't directly go to NOAA. We have a system where we get all of our requirements all rolled up. They go into the agency and the agency does the coordination

for us.

And I would also comment that NOAA also coordinates with the Commander Navy Metrology and Oceanography Command who owns the survey ships, the survey program so that there's no duplication effort in that regards.

CHAIR WELCH: All right.

CAPT. LOWELL: Thanks, Daniel. We do coordinate very well. But I would say whenever they have a request of us, we certainly do travel. We typically don't have a lot of requests for the Navy, although the general rule is if they do collect data in U.S. waters because they provide quickly and efficiently to us. And a good example is up in the Arctic last year, because one of your vessels was up there. And they're certainly sharing the data they collect. It wasn't a lot, but it was in the areas of the Arctic.

MR. MORRIS: And some of the data we've collected in Apra and Saipan Harbor, to name a few.

CAPT. LOWELL: Yes. So I would say our relationship is fairly well coordinated. Everything could get better.

MR. MORRIS: Yes?

MEMBER MILLER: In terms of Apra, the management agencies were desperate for that data and I'm sure you can understand why probably. And through --

MR. MORRIS: Well, our carriers want it.

MEMBER MILLER: Yes. Yes. Through NOAA, you know they got the data rapidly. And that was a really excellent example of coordination and access to data, and so forth.

MR. MORRIS: Okay. One other comment. The duplication of the DNC and then NOAA's ENC came up today. Let me just state that the data is the same. The only thing that's really different is the format, and that's for compatibility with our command and control and weapon navigation system.

But there is talk of a long range

plan to convert to the ENC format when the international community moves to the S100 and 101 standards, which are still being debated at this time. So I can see some point in the future when we are fully compatible, not only with the data but also with the format used to present the data.

CHAIR WELCH: Okay. Yes, Gary?

MEMBER JEFFRESS: I know it has very sophisticated side-scan sonar with a totally different mission then to produce nautical charts. Do they just scan and then throw their data away if they don't find any - -

MR. MORRIS: No. Our site scan sonar tends to be for site-specific surveys for military purposes. Clutter mapping for mine warfare, routes and things like that. And so it's typically very site-specific and because of the classification of what we're doing, it's generally not released.

So we don't do large area mapping

with the site scan sonar. So the utility is very, very narrow. But we do have a capability to do surveys on demand.

For example, for Operation Tomodachi, the Foreign Humanitarian Assistance to Japan following the recent tsunami out there, one of our salvage ships was in there and provided support removing material from one of their ports and used their side-scan sonar to identify the objects that needed to be removed; cars, houses, shipping containers.

CHAIR WELCH: Okay. Thanks very much.

MR. MORRIS: You're welcome.

CHAIR WELCH: Are there any other public comments? I guess not. All right.

We have a few minutes here on the schedule for just discussion among the members or ramp up comments. I have not really been together some kind of a summary that I would give of today's events. We've been recording the comments and people have been making

notes.

But are there any observations of the Panel members as to how the day has gone or things that have struck you, particularly the new members? Michele?

MEMBER DIONNE: Well, I think one thing that struck me is how well the different parts of NOAA, the three line offices that we talked about today, work together to put together a coherent set of products and services.

And the other thing that struck me was the impression is that this is well known within this group and within the line offices of NOAA that are involved, but perhaps we haven't put together that outreach package. And I know there are lots of information sheets in the back, and that's part of it. But, you know, really how to sell this as a unified package to people who are representing constituents and pulling budget strings is probably something that we ought to be

thinking about.

CHAIR WELCH: Thanks, Michele.

Other comments? Gary?

MEMBER JEFFRESS: We just heard from our friend from the Navy, again t justify by our existing by polling our users. And Texas is a microcosm of like the United States. And Texas is broken. They are having severe cutbacks in all manner of state services, including universities.

TCOON, we've started doing this just recently, is surveying our web users because, you know that's the main conduit. We have a monthly survey going on right now to ask our users why do you use it, what value do you get out of the use and how often do you use; all this sort of things. And it's turning into a really valuable tool.

And it's not our scientific users or our program users, it's mainly the public that's using it. You know, fishing, sailing or wind surfing, all that sort of stuff.

And the policy makers want to use it. And so we are amassing the data to use it to justify why they spend money to collect the data.

CHAIR WELCH: That's a good comment, Gary. And one thing that the Panel has sort of dipped its toe into occasionally in the past has been is there a role for the Panel to try to solicit this type of comment. And when we dipped our toe into that little water, we get reminded by our NOAA friends that we do have a statutory mandate as to what this Panel is supposed to do.

And, you know our mandate is not necessarily to go out and be the advocate for NOAA and NOAA navigation programs to the general public at large or to specific user groups, or to the U.S. Congress. We're all free to do whatever we want to in our individual capacities, but as a Panel we have a little bit of a constraint on us.

But what we do have the ability,

is to impress on NOAA, should we choose to do so, the value of that type of outreach and data collection and use. And so if that's something that we want to pursue and pursue in terms of recommendations to the Administrator, we're certainly free to do so.

And I think one side value of having user panels at our meetings is that sometimes that tends to get the community in that particular location or region a little bit more motivated to on their own make some communications to their political representatives or their agency folks.

So, we need to be a little bit careful about what we as a Panel can do collectively to these third parties. Because ultimately our mission is to report back to NOAA.

Yes?

MEMBER BRIGHAM: Yes, just to follow-on what Michele said. I think this is a little parochial, but I think you need to

brief the Alaska delegation of all the wonderful things you're doing. I knew some of them beforehand, but I think the notion is for Alaska that there's not much attention given in this new era of a new Arctic, whatever that means. And so it's very specific and you're supposed to argue for the nation's interest. But I think the delegation, their staffers need some education here on all the elements, particularly related to Arctic.

CHAIR WELCH: Yes.

MEMBER BRIGHAM: It doesn't require the Administrator to go there, but it requires maybe line officers to just go brief the staffs.

CHAIR WELCH: And, actually, there have been a couple of bills introduced in prior Congress and in the current Congress by, I think Senator Baggage's bill--

MEMBER BRIGHAM: And Murkowksi.

CHAIR WELCH: -- and maybe Don Young that are oriented towards Arctic mapping

and charting. And you know, they probably aren't written exactly as we would write them if we were doing it ourselves or NOAA were writing it. But it does show that somebody up there has some sensitivity to the issue, it provides an opportunity.

Yes?

MEMBER MILLER: And since Lawson mentioned Alaska, you know the Hawaii congressionals have been very, very strong in supporting NOAA in terms of getting earmarks for two sonars in Hi'ialakai. I mean, there has been very, very strong support in Hawaii.

And I guess my question earlier about what are the plans for upgrading things in the Pacific, you know he's been very strong in trying to upgrade things in the Pacific and so forth. And for instance, the sonars on the Hi'ialakai really haven't been used in the last two years. They're just sitting on that ship. And the guy from the monument, it goes up into the monument regularly and it's not

used at all. And it's partly because of competition for ship time and so forth.

But you know in a jurisdiction like Hawaii where you have such strong congressional support, you know to me it would make sense to make better use of the facilities and so forth.

CHAIR WELCH: Well, I'll make a political observation. Alaska and Hawaii are similar in a lot of ways in the sense that they have some congressional delegations.

MEMBER MILLER: Yes.

CHAIR WELCH: And so a lot of the support that does exist in a congressional delegation, and a very small congressional delegation, depends on who is in that.

MEMBER MILLER: Oh, yes.

CHAIR WELCH: And so, for example, Senator Stevens of Alaska was a huge NOAA supporter and now Senator Stevens is not there and Alaska has seen -- you know the people that are in the congressional delegation are

interested, but they don't the clout and they don't have the experience. And they just aren't yet this effective as Senator Stevens was. And he was there close to 40 years. And the same situation with Senator Inouye here. But, you know eventually Senator Inouye will no longer be senator and Hawaii will have more junior representatives in its congressional delegation.

So, it's great to have an advocate like that in your congressional delegation, but nothing is forever. And, you know, people need to think about how do we educate the next group of leaders from these small states.

And, you know, having the Lieutenant Governor here is part of that effort.

MEMBER BRIGHAM: Yes, I'd just add for the last five decades it's been fish. And so the broader aspects of marine navigation and protection of the place and offshore development and all that was off the far radar

screen. Still kind of fish. So when you brief the delegation and the staffers, they need to broaden their horizons. And they are already, because they hear arctic and climate change and they translate it into sea ice retreat, but it just might be offshore development and the intended observations we need to do that safely.

So, I think they need some more education broadening, would be my suggestion, beyond just NMFS and fish.

CHAIR WELCH: Yes.

Well, if I could give my sort of summary observation of what we've done today, particularly for the new members. We had sort of three types of themes or presentations. We've talked about the need to think strategically. And NOAA's desire of us for this Panel to offer strategic type of advice.

So as we hear from our speakers, whether they're from the government or from the private sector, we need to think about

ourselves, you know what are the strategic themes that we can draw from these presentations?

Then secondly, we have the more here and now issues, the current state of the budget, some of the specific challenges that the users or the Agency out here at this particular location might have, and is there a goal for the Panel to make any comments about things like that?

And then our interest in what the private sector people have to say about it and us, the Panel, providing the mechanism to allow those people to give their input to NOAA and for us to try and reenforce that.

So, the long range view which the NOAA leadership is asking for. The immediate program challenges or issues. And then the input from the users; the private sector and the other public users that maybe could work with NOAA.

So, I think you'll find that in

our future meetings they'll continue to be a mixture of these types of presentations. You know, we may elevate the line a little bit more and diminish another for a particular meeting. But that is going to be typical of these meetings.

And so with that, Kathy, do we have instructions as to what we need to do, particularly for tomorrow? I guess we come back here first thing in the morning and the have a fairly early departure to go to the site visits?

MS. WATSON: Yes. The breakfast is going to be served out here at the same place. And then just basically we're going to do a recap of day one, whatever.

But we're going to be departing about 8:45. And we have two mini shuttle buses that can carry about 17 persons each bus.

Kyle already has the timeline worked out with Matson. It should take us, probably, like 15, 20 minutes to get there and

then, of course, do the site visit. And then, hopefully, get back here by lunch.

CHAIR WELCH: Do we have any kind of requirements for identification, individually, or --

MS. WATSON: No, no.

CHAIR WELCH: -- something that we should or should not wear, or any of that kind of stuff.

MS. WATSON: Well just, I guess, comfortable clothing.

MEMBER MILLER: No Speedos.

Actually, I wondered about shoes. Should we make sure to have closed shoes on?

MS. WATSON: Yes, I would imagine closed shoes because if we're going to be walking on the ship, we're going to be on the bridge.

Okay. Now one key thing is that--

CHAIR WELCH: We're not climbing up or any of that, steep gangways or anything

like that, are we?

MS. WATSON: No. But we are all going to meet over here on the -- what do they call the tour side? That's where the shuttle buses will pick us up on the first level, okay.

MEMBER DIONNE: But we'll be coming to this room.

MS. WATSON: Yes. Because the breakfast is going to be all served here everything. And it's best that everybody meet here and then we just walk downstairs.

CHAIR WELCH: Okay. Any questions about tomorrow?

And then, again, as a reminder for tonight.

MS. WATSON: And for dinner we can all meet at the lobby where we all check in, say, at 6:15. And then we can walk to the Hau Tree Lanai. It's just a brief 15 minute walk. Very nice walk.

MEMBER MILLER: The aquarium is on

the way, and I'm not sure how late it stays open. But it's a very nice aquarium. And they do have monk seals.

CHAIR WELCH: Okay. Well, I thank everybody in attendance today, both Panel members and NOAA folks and our guests. And with that, we'll call the official proceedings closed for today and hope to see many of you tonight.

(Whereupon, the above-entitled matter went off the record at 5:20 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Hydrographic Services Review Panel

Before: NOAA

Date: 05-04-11

Place: Honolulu, HI

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

Neal R. Gross

Court Reporter