NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HYDROGRAPHIC SERVICES REVIEW PANEL

Volume I

Anchorage, Alaska

August 14, 2006

Attendees:

Voting HSRP Members

Jon Dasler
Elaine L. Dickinson
William Gray
Captain Sherri Hickman
Dr. Lewis Lapine
Adam McBride
Captain Andrew McGovern
Captain Minas Myrtidis
John Oswald
Scott Rainey
Tom Skinner
Rear Admiral Richard West (telephonic)
Larry Whiting

Non-voting Members

Captain Andrew Armstrong
Dave Zilkoski
Michael Szabados

Designated Federal Officer

Captain Steven R. Barnum

HSRP Decision Maker

John H. Dunnigan

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P R O C E E D I N G S

(On record at 8:00 a.m.)

MR. RAINEY: Let's go ahead. This first session is going to be a administrative session for just the members and our NOAA representatives to talk about some things and then we'll open it up later at 1:00 for our -- to start our public session. So this will give us a chance to talk about a few things that are in the pipeline that are not -- that's not public information as yet.

Thanks to everybody for coming. We are going to try to -- we've set up an opportunity to phone in for Admiral West and Admiral Larrabee who both couldn't make the meeting physically but they may try to check in with us this morning for some time for some of the discussions. Glad we finally got here to Alaska, I know we've been aiming at that for awhile. Thanks for NOAA for supporting that and getting everybody up here, it's a great group of NOAA representatives that we have with us this meeting. And also NOAA has enabled us to have John Rayfield from the House of Representative staff come and join us and John was instrumental in the -- on the front end of the HSIA. And since we're looking at some of those issues and reauthorization coming up that it'll be nice to have a chance to have a dialogue with John. Thanks to John Oswald, Larry Whiting and, you know, our Alaska members for all the help in logistics, getting this set up here on the ground to bring us to Alaska and really

appreciate that and we're looking forward to a really good meeting.

Just a real quick overview of this morning. We've got a briefing on the fiscal year '08 budget, some things that are going on there, and then a chance to talk a little bit about the HSIA if there's some questions that we want to talk about this morning. We have a scheduled presentation, Glen Boledovich who's been with us previously and is back again today. We'll talk about that in our public sessions as well, that's one of our things we're going to do. And then we'll have a fair amount of time this morning to talk about the special report that we distributed and hopefully everybody had a chance to take a look at that. And Ann Boese is the writer who's on contract to help us publish that and she's here and she'll be back in for that this morning.

So that's kind of where we're going this morning in our administrative session. The other piece of business I'd like to take care of this morning would be to, you know, solicit interested folks. As you know, Helen is now the Executive Director, the Secretary for the Committee on Marine Transportation System, and she's going to be working on those issues and so she's now a federal employee and we're looking forward to working with her down the road through our advice to NOAA. So -- and I'm not sure what your -- so -- and so we need to elect another Vice Chair or a Deputy Chair so I'd like to do

that this morning. Steve, could you -- do you have.....

CAPTAIN BARNUM: No, I'd just also like to welcome everybody here to Alaska and I'm glad everybody could make it and I'm looking forward to some good discussions today and tomorrow. And certainly want to echo your comments and thanks to Barbara and the team that put this all together. I know it's no small task. So, welcome.

(Pause)

MR. RAINEY: Okay. If -- I think, you know, to begin the public session maybe we'll have, you know, members introduce each other or anything. Does anybody else have any comments or anything that they'd like to say at the outset and then we'll go ahead and proceed with the information? Okay. Any questions about -- I guess any questions from anybody on what we want to try to cover this morning? Okay. We don't know -- we've got -- like I said, we've got it set up for the Admirals to call in, we don't know, we tried calling their offices this morning so we don't know if in fact they'll be able to join us. But maybe we can go ahead and roll into, you know, the Deputy Chair, maybe that would be appropriate to start out if there's -- what I'd like to do -- you know, we know how the last one turned out so we can -- maybe this time suggest that we -- you know, people can just write it down and then, you know, we can tally the votes. But first off I haven't really heard from anybody, you know, in the interim or between the meetings if there's interest

out there, if, you know, people are interested in that. So I think the first cut would be to see if there's folks that would be interested in serving as the Vice Chair and, you know, then assuming we've got a couple folks interested then we can go from there and we can make a selection. But -- Bill Gray.

MR. GRAY: Yeah. I've just got a point. Just looking briefly at the (indiscernible) for this morning and then for the rest of the session. Maybe we have but I didn't see it but this draft paper that you sent to us, is -- are we going to get the opportunity to discuss that at some length?

MR. RAINEY: Yes, absolutely.

MR. GRAY: (Indiscernible) don't think it's on the agenda.

MR. RAINEY: Okay. It's -- yeah, absolutely, we're going to try to take as much time as we can to focus and work on that. There's -- in the -- this morning after we get through the briefing on the budget and some discussions on the HSIA to the extent there are some and the balance of this morning we'll be working on that and our writer will be coming back in, rejoining us and specifically spend the balance of the morning kind of introducing, you know, sort of the process and -- so we'll sort of set the stage for that. We've scheduled in -- we've got some key briefings through the rest of the meeting, Dave's got a NGS briefing, Glenn on the HSIA. So we have a few things that will help feed into I think the -- you know, the special report and we've tried to also schedule in ample time for public comment,

we have a specific Alaska stakeholders panel but also some other public sessions. As we can find time in that -- and we've also scheduled as much time as we can to keep working on the report. So everything I think on this meeting is focused on that with some briefings that'll help us on certain sections I think. And so we'll start out -- the bigger part of this morning will be on the special report and then we'll just keep going from there.

MR. GRAY: Well, I just thought I had a -- I mean I think it's a very good start. Having said that I think we really need to -- we can't all sit here and write a report.

MR. RAINEY: Right.

MR. GRAY: But we can give views that those writing it could -- the second thing, because it is a draft isn't it best probably done in this closed session rather than in the open session? I don't know what the protocol is on that. I believe that takes you guys to tell us -- as long as we're doing a draft of this committee as this committee I think we should be able to talk about it without doing it in front of public comment yet.

MR. RAINEY: Okay.

UNIDENTIFIED MALE: And I think it is, it's here at 10:00 o'clock, right?

MR. RAINEY: Yeah, we're going to start at 10:00 or earlier if we can and absolutely that's my intent. It's -- it is just a start, I think it's a good start but there's clearly, you know, every intent to pull the panel in to see where we are.

And what I'd like to do, and I talked with Ann Boese again this morning and my intent as we lay this out and just ask everybody's kind of -- you know, kind of patience and forbearance as we kind of try to lay the stage for it. But what I'd like her to do is sort of explain where we've been and I'd like us to try to at least at the outset start out with let's talk about the structure of it, what we're trying to do with it and kind of stay at the -- sort of the macro level if you will rather than zooming in and saying, well, we need to change this, you know, headline. Because we want to kind of frame the house and then we can start moving the furniture around, you know, in the next round. We're going to have -- we'll have ample time and support to kind of just bring this thing all into focus. So at least this morning we can kind of set the meets and bounds of it and the scope and what we're doing, I think it'll flow from there, so. All right.

MR. GRAY: Okay. I'm sorry, I didn't see -- I was looking for critical connections but I see it is the 10:00 o'clock thing this morning.

MR. RAINEY: Yes, sir. Okay. And we do have a transcript being made so as we -- it'd be I think particularly important in our public sessions as our practice just to -- at least at the outset go ahead and -- I know I didn't do it here but just give your name and then we'll start in and we'll try to go one at a time. These are not voice activated so it's a push to talk

system and it's just -- you'll figure that out quickly I'm sure. All right. Any other questions or comments? Well, could I open the floor up then for either nominations or folks that just, you know, would have an interest in serving as the Vice Chair? Making -- maybe making that known and we could have a discussion or see who may be interested and then we can have an opportunity to select somebody this morning. Is anybody interested?

CAPTAIN HICKMAN: Tom, are you interested?

MR. SKINNER: You spoke first.

MR. RAINEY: Captain McGovern, Andrew.

CAPTAIN MCGOVERN: Just a suggestion, maybe we could put the selection of the Vice Chair off till tomorrow morning and have today to try to.....

MR. RAINEY: All right.

CAPTAIN MCGOVERN: .....work it out amongst ourselves over.....

MR. RAINEY: Okay.

CAPTAIN MCGOVERN: .....during the breaks and.....

MR. RAINEY: All right.

CAPTAIN MCGOVERN: .....(indiscernible) and such.

MR. RAINEY: Sure, that's a good idea. Because we haven't had a chance really to talk and people can talk today.

CAPTAIN MCGOVERN: We have to twist somebody's arm and it's going to.....

MR. RAINEY: Yeah.

CAPTAIN MCGOVERN: .....take some time.

MR. RAINEY: All right.

CAPTAIN MCGOVERN: Thanks.

MR. RAINEY: Okay. All right. All right, let's go with that, I'm fine with that. I guess let's go ahead and then just proceed and if we could -- I'm -- again, I'm extremely pleased that Mr. Dunnigan could make it with us, his support's been very, very helpful and we're looking forward to continuing that partnership here and working on our special report and everything and so if I could I'll turn the floor over to Jack.

MR. DUNNIGAN: Thank you, Scott, very much. Good morning everybody, welcome. I remember the days when I was a much younger professional in this business and I worked out of Seattle and Alaska was part of what we covered and we couldn't stay in the Captain Cook because they didn't have a government rate. This was the hoity-toity hotel in town. So now years later here we are, we get to do this. It's great. And Alaska's a wonderful place. Commander Doug Baird drove me down to Seward yesterday so I hadn't made that trip in -- since 1988 and I got to spend a couple of hours on board the Rainier with the XO and some of the other officers and get a good tour of that hydro services vessel, understand some of their problems, see a little bit of it and -- we talked a lot about their mission in Alaska, about their partnerships with other -- with contractors both for at sea observations as well LIDAR, got a really good sense of

what some of their current missions and priorities are. So it was a very, very good thing for me and I'm going to take some time later in the week to get around the state and get to meet some of the other folks that are involved in the maritime transportation community. So I'm really glad to have that chance.

Let me just mention something else. I got to give a little bit of an opening last Wednesday morning on board a Coast Guard buoy tender in San Francisco and I opened my comments with this. I said I have bad news for you, there has been a collision offshore between a bulk cargo carrier and an oil barge that was under tow. It happened last night at about 11:30 and at the moment the barge is leaking oil fast, the bulk cargo carrier has lost its steerage and it is sheening oil, we have to respond. And what this was was a setup for a drill that we did off of San Francisco last week, we call it Safe Seas '06. And it was just a tremendous cooperative, collaborative effort on the part of so many agencies. The State of California, Cal Fish and Game really bought in, they had about 40 people involved. There were 400 people involved in this exercise. And as much as possible we tried to play through what would be happening, how the Coast Guard would respond, how NOAA would respond, the Fish and Wildlife Service and the Park Service, which both have significant assets in the Golden Gate area, were very actively engaged. So it was one of those things -- it's the second time

we've done this, the first one was in the Florida Keys last year and that went very well too and everybody came out of that, you know, having learned so much that they wanted to do it again and so we had the setup for Safe Seas '06 this year. I think it's a good statement about the commitment that we all have to being ready. Because you don't ever expect or want an event like this to happen but shame on us if we're not ready to handle it when it comes. So it's -- it was really an outstanding event. And I -- so I've been on the west coast now, this'll be two full weeks by the time I get home on Saturday morning so I'll look forward certainly to getting home.

This morning -- oh, one other informational thing. Scott mentioned Helen's new role, that she finally got brought into as the Executive Secretary of CMTS. The other little just informational piece there is that of the four major agencies that are helping to stand up to CMTS, that'd be NOAA, Coast Guard, Corps of Engineers and MARAD. Each of them has promised a senior staff person, GS-15, to go and work with Helen and basically to be her staff and to provide all of the liaison back and forth with the major agencies. So far NOAA's the only one that's been able to get its person on board. But you may know Gary Magnuson who's been on our staff for a long time and we've selected Gary for that position and he's already working with Helen so that's beginning to stand up. We've had a little bit of an issue in some of the agencies because of turnover. MARAD

just got a new director -- a new administrator last week, they were very short in their leadership. In the Coast Guard Admiral Bone has been appointed now to that position, they've done some reorganizing over there. So I think the CMTS is going to start gearing up a little bit more here over the next month or so and Helen will have a lot to do and Gary will be there to work with her. But you should know that NOAA has gone ahead and we have, you know, created that GS-15 position and we put Gary Magnuson in it and of course if you know Gary you know he's terrific and it's going to work very well.

So let me go ahead and talk a little bit about what the presentation's going to be here this morning. Captain Barnum and I are going to do a little bit of a tag team on this one. But the last time we were together it was apparent that the committee didn't really -- the panel didn't really understand, not that we do, all of the different ways that our agency decides, you know, how it creates priorities and how it decides to propose budgets and just sort of how it all works. PPBES is what it's called, it's a system. And so we thought we would want to come to you and talk to you a little bit just so that you would understand the kind of processes that we have to go to for our out year program planning. Those of you who've worked in NOAA at various times of your career, you've seen a million different ways for us to do this. This is the way we're doing it today. It's not rocket science, it's a little complicated

and it's got a lot of transaction costs, it's not inexpensive to do. But the -- but Vice Admiral Lautenbacher basically felt that and I feel that we don't do a very good job all the time of telling our story. And the whole idea is how can NOAA come together with a cohesive and comprehensive view as to what we do and to make a sense of the vitality of this for the American public and frankly the economic security of our country, you know, understandable and come alive for people who end up having to make these decisions. And that's really what this is all about. PPBES was brought by the Admiral from the Navy. In different parts of DOD they use a little different terminology. PPBES is actually an Army term but we added that in after about a year. P stands for planning, P stands for programming, B is for budgeting. So it's a planning programming and budgeting system and we've added the E and the E stands for execution, to sort of, you know, get this understanding that you not only plan and program a budget but then once you get a budget somebody's got to carry it out. And you want to make sure that the carry out is done consistently with the programming that might have been done two years before. So that's what planning, programming, budgeting and execution is.

As we go through this presentation this morning it's going to be a mix of things that you can talk about outside this room and things that you shouldn't talk about outside this room. Anything that has to do with dollars and specific dollar amounts

is something that ought to stay inside this room, especially if it has to do without your budget plan. And I don't know how much of that, you know, Steve and I will ultimately get into but we will answer whatever questions you have. So just keep in mind that if we're talking about policies and priorities, that's pretty much something that we ought to have a good broad discussion about with stakeholders and in the community at large. If we're -- if we end up talking about some specific dollar amounts in out years that are not public yet that has to stay inside the room and we appreciate that. But we're going to be as open with you as possible. And I'd like to keep the discussion very informal. So ask questions as we go through, raise your hand and we'll have some discussion, don't sort of wait until the end and then expect to, you know, go back to, you know, 10 slides or so and see how we go. Okay?

All right. Let's have a slide.

UNIDENTIFIED FEMALE: (Indiscernible - away from microphone).

MR. DUNNIGAN: Oh, are we going to dial in? Sure.

UNIDENTIFIED FEMALE: (Indiscernible - away from microphone).

(Pause)

UNIDENTIFIED FEMALE: (Indiscernible - away from microphone).

MR. DUNNIGAN: So we're it. One including us. Okay. So

what we're going to do is just give you basically an overview of PPBES as it's executed in NOAA and NOAA does it a little differently than the Navy or the Army. We're going to talk then specifically about one of the four mission goal areas and you'll see on the next slide I think or next couple of slides what I'm talking about there. But within NOAA in our planning structure we have four mission goals that are taken out of our strategic plan. Commerce and transportation is one of them, ecosystems is one, climate is one and weather and water is the other one. So we're going to talk to you, and this is what Steve will be doing a little bit more specifically about what the commerce and transportation goal is all about and what the out year priorities and planning looks like there. And then I'll come back and we'll talk towards the end here a little bit about what we see as some of our future challenges. Elaine.

MS. DICKINSON: Elaine Dickinson. Quick question, is this a system that is used government wide or is it just unique to NOAA?

MR. DUNNIGAN: It is used in a number of different agencies. It was basically developed in the military back in the MacNamera days. All right? So that's the Lynden Johnson administration. And, you know, DOD's always had challenges trying to, you know, bring, you know, the wide diversity of what they try to do together and MacNamera basically helped develop this system. Actually this system was the PhD dissertation for

Alice Rivlin. And I don't know if you know that but Alice Rivlin ran the congressional budget office for years and ultimately was the OMB Director I think at some point in the Carter administration. But that's where it came from. When Vice Admiral Lautenbacher came he looked at the planning and programming processes we had. They were pretty defused at that time and he wanted it to be much more structured. So he basically was very familiar with this system, he had run the PPBES system for the Navy in one of his billets and he recruited Bonnie Moorehouse who is now our Director of Programming to come over from the Navy and they worked to implement this system in NOAA. Now as we're doing it in NOAA it's different, you know, because we've tried to mold it to make it meet our specific issues and needs and capabilities and personalities but the overall structure of it is the same. It's used in a number of places, I don't know what all of them are, but it's basically a military system and the NOAA implementation of it is unique to NOAA.

So it is a tool. One of the things that Vice Admiral Lautenbacher thought when he came here was that we were way too stove piped, that if you were in NOS you never explored the possibility of synergies with the National Marine Fisheries Service or with the National Weather Service. What we find is and have learned over the last couple of years, that there are a lot of efficiencies and cross collaborations that we can do

within NOAA that make us more effective. And that's one of the benefits that I think has come out of the system. It's a long term planning system. It's like the old Yogi Bear quote, if you don't know where you're going you're likely to get there. And so we try to evaluate things that we want to do in terms of where we'd like to be five years from now and have that kind of a sense. And then it's a system for setting some priorities and allocating resources. It starts with stakeholders which we need to do on a regular basis. In my view we don't do this effectively enough. Some of you may have been engaged in stakeholder meetings in Washington, D.C. or around the country that we've done a couple of times. I've had an initial meeting with NOS stakeholders about two months ago. I know I need to do more of that. Our goal team leads, and Captain Barnum is the goal team lead for commerce and transportation, are being looked to to get out and find out what it is that our stakeholders want, and certainly the panel in an important place on our commerce and transportation goals for us to start. But the pictures in this slide basically come from a stakeholder meeting that was held in March of 2004 where we, you know, brought folks in, probably 200 people, and had them split up and talk about, you know, what they saw NOAA doing and where they thought we could improve and move forward.

Okay. So why is PPBES critical now? The defense budget is going to grow more than 50 percent over the next decade. The

U.S. Government only has, believe it or not, so much money. And we can keep printing it. It bothers me that my grandchildren are going to have to pay for it but we're living in a world of limits and there are some things that are happening sort of on a grand scale that play out. The Medicare drug benefit, $1.2 trillion, it dwarfs the President's original price tag. There are spending restraints. The President has indicated that he would like to see negative growth in discretionary spending across the U.S. Government. And here's a quote from a newspaper article in February of '05 talking about the President's budget, talking about eliminating dozens of politically sensitive domestic programs. Let me tell you what's going on here I think. You know, this is not a political statement. But we do appear to live in a country that wants to fight two wars, save social security, have tax relief and bail out people who get caught in serious storms. Now as long as those are the priorities of the country programs that we work for and are passionate about and know contribute to the economic security are going to be hard pressed to find a voice. And that's what is behind NOAA trying to spend some real time in a very concerted and disciplined way of articulating what our priorities really are. It's very much a question of priorities. As we like to say, the future ain't what it used to be. So the PPBES system is trying to give us an opportunity to look at what all of our requirements are, what are the things we have to do,

recognize we can't do all of them and try to make some decisions about which of those are most important.

Yeah, go ahead. In NOAA, when Vice Admiral Lautenbacher came in he saw a structure that was, as I said, very stove piped. You had a research component, you had a satellite component, an ocean component, a weather component, programming and planning and fisheries and vessel and aircraft operations. And what he said was, you know, there's too much commonality in what I can see across what we do and so when I can see crosscutting our goals that apply mainly to all of these programs. So what you see up on the slide really is a matrix and the major goals that he saw were for, as I said, ecosystems, climate, weather and water, commerce and transportation and mission support. The one thing that I will say since we're staying in the room here with this discussion is that too often in my view in NOAA we've referred to commerce and transportation as goal four with all that that implies in terms of priority. And I think we all appreciate the critical role that these programs and services play and I want to find a way to get NOAA really excited about all of its programs, including its commerce and transportation programs.

Now the other thing that he did, and I don't think we have a slide for this, was he looked across NOAA under each of these four strategic mission goals and then -- and said I see about 40 different themes that play out and these themes he called

programs. So, for example, there is a Marine Transportation Systems program in NOAA, there's a Fisheries Management program. I was -- before I came here I was the ecosystem goal team lead and we had nine programs and those programs drew resources from different parts of the line structure across the top. So what he was trying to do there was to create a matrix system that gave us all an opportunity to share, to share responsibilities, to share assets, resources in a very programmatic and hopefully effective way that could be more tuned towards outcomes. And what he did was he empowered the goal teams and the programs, and Steve will be talking about the C and T programs when it's his turn. But he empowered the goals and the programs to do the planning and the programming and the budgeting and then the line offices, like NOS, are responsible for executing. So the system works on a continuing basis. For any one fiscal year you start with planning in March and -- no, back up. And the -- there's an annual guidance memorandum that Vice Admiral Lautenbacher signs that comes out in June and that gives guidance to the goal teams. Each one of the 44 programs then writes an operating plan and the goal team does a portfolio analysis. All of this is aimed at getting us a baseline for where we are and what's important. And beginning in September we move into the programming phase and that's where the goal teams really make their money, or really do their jobs. They write a program plan for a specific fiscal year. Now this September Steve and the

other goal team leads will be writing their program plans for a five year period from '09 to '13. So that's -- this is '06 and they're working on the '09 program plan this September. That's a little bit of a sense of the lead time that it requires and we'll see that in a slide. Leadership will approve this at the beginning of January and then the Vice Admiral will write a program decision memorandum at the end of January. That's basically direction to the budget office, tells the budget office go ahead and write the budget for '09 based upon this approved program plan that we have for the period '09 to '13. So budgeting will take over in February and they'll start preparing the budget which has to be approved by the Department, has to be approved by OMB and ultimately the following -- that takes a year, the following February the President will send that budget up to Capitol Hill. So -- and of course the process for '10 will have started again before, you know, we're done with budgeting for '09. So there's a number of cycles that are going on here all of the time. Once Congress is done and we have an appropriation then the line offices are given, you know, their opportunity to write a spending plan. We have to go back to the program plan that was approved two years before and say Congress gave us this money, this is -- these are the programming issues that we're supposed to be giving priority to and we have to execute. So in this system the line offices, our people are working in planning, programming and budgeting to

make that happen, it's not a separate staff. But where we really have an operational responsibility is on the execution side. So in any fiscal year we write operating plans, we do monthly and quarterly execution reviews, we have milestones that we have to be meeting, if we're not meeting our milestones we have to, you know, come up with plans to do so and at the end of the fiscal year when it's over with we have to do the final closeout. Next slide.

MR. RAINEY: Can I -- could I ask you one question?

MR. DUNNIGAN: Yeah, go ahead, Steve.

MR. RAINEY: Before I get too far behind you. One of the questions I've had in this process is, and I guess I'm -- it goes back a slide or two here, it was on -- when you talked about the crosscut goals. And I really appreciate the comment about commerce and transportation because I've done so many of those strategic planning things where it was an issue whether we would even be a strategic goal and so to see that elevated. But my question goes to -- I -- one of the points I've been trying to make over the years or push is that the hydrographic services that we're focusing on here, I think the first order obvious mission support is commerce and transportation. But in reviewing -- you know, like this -- been going through a lot of the different reports out like this is the geospatial framework for the coastal zone and everything. I mean it's -- it -- one of the things I'd like to try to have our panel emphasize is

that not only is this just simply, you know, for navigation but -- you know, in this report for example they're recognizing wildly across all of coastal zone stakeholders that the need for bathometry is, you know, right a -- a top priority and things. And so many of these programs and services support priorities and programs, I think that's the whole idea of the crosscutting, and I'm wondering if as we look at the percentage that kind of goes to commerce and transportation and the -- you know, the traditional promote safe navigation type programs if there's a way to get credit or, you know, to account for the benefit that you're getting on these other goal systems. I mean can the ecosystem goal provide some resources to some of these programs because they're benefiting from the -- you know, from these datasets as well, I mean the bathometry, the -- you know, the back scatter for habitat, we've talked about a lot of the multiple uses. Is there an ability to say that -- you know, when we're looking for -- when NOAA's looking and having to make these hard choices is it going -- are we going to be keeping limited to the small percentage of the NOAA budget that sort of -- I don't want to use the word earmark, but identified as commerce and transportation or can you look across the suite of NOS or, you know, NOAA funding and say, well, you know, gosh, we need this data too and so we -- you know, this is coming up short and -- can you look across that, is that part of the PPBES system, is that ability to do that?

MR. DASLER: Jon Dasler. Yeah, along the same lines as Scott. I mean we see it a lot, the solicitations that are out for hydrographic data acquisition or bathometric data from Coastal Services Center or Fisheries mapping of habitat on coral reefs. And I think that's one thing where it's really been lacking is the data that -- and I know it's progressing along those lines, but the data that HSD is providing in their bathometry acquisition and imaging of the bottom, it really has these multiple uses which has really been I think understated. And it's one of the few acquisition programs of that kind of data where it can be used, you know, across the board for both, you know, habitat mapping and inundation modeling. So it does seem like there is a lot of this different acquisitions within NOAA that somehow if that could be interlinked could be a tremendous benefit.

MR. DUNNIGAN: Yeah. Let me -- if you get the impression that this is a system that takes a lot of energy to run you're right. Okay? If there's any benefit that has come back to us from that system it's that we have a lot more talking back and forth all the way across NOAA now than we've ever seen before. When we used to do planning, strategic planning and budgeting strictly by line office we did it all within our line office. And with all of this crosscutting that we're doing there are lots of opportunities. Let me give you an example or two. When I was the ecosystem goal team lead I got together with the

climate goal team lead and I said we have a problem in the Arctic, it's called receding ice. And we actually talked to Charlie Challstrom when he was still with us here about the implications that retreating ice would have for marine transportation across the northern part of our planet. And those kinds of discussions probably never would have happened if we didn't have this kind of a system that made it work. The goal team leads got together one day and decided that they wanted to be able to talk to each other without having any adult supervision. And so they decided to have a discussion about droughts and all of a sudden they became known as drought meetings and it was sort of this little internal understanding that if there was a meeting on the schedule that said drought meeting it was the goal team leads sitting down and talking to each other about things that they didn't want to have NOAA interfering with them on. And of course ultimately everybody knew the key so it sort of broke down. But they still have these meetings regularly and they still call them drought meetings. That's not to be distinguished from the Mexican water quality meetings which was basically a -- an elevated drought team meeting that was held at Mi Rancho (ph), a Mexican restaurant near our building. So there is this discussion that goes on back and forth. The Fairweather right now is doing -- you know, it's just a hydro vessel, is doing a fisheries habitat piece of work and I think it's up in Bristol Bay they told me

but I'm not entirely sure. So there is that ability too. We're finding that our hydro vessels are able to do a lot of habitat mapping and one of the things that commerce and transportation and ecosystems are trying to come together on is integrated ocean and coastal mapping, you know, having a consolidated program to recognize that we have requirements in a couple of different places of our agency, are there things that we can do to try to meet those requirements more effectively by deploying assets to do things that traditionally we wouldn't have thought of, we would have said the Fairweather's a hydro vessel, you know, get out there and do those types of surveys. Well, actually the Fairweather can do a lot of interesting things and as a matter of fact the fisheries survey vessels that are out there from time to time are going to be in a position to be able to do some mapping as well, they can carry sonar. So there's a lot more of this cross stuff that's going on. There is in the long term NOAA plan a large re-capitalization of the fisheries survey fleet that's underway. And we -- last year in the process we got to the point between ecosystems and commerce and transportation about talking about is that really the right thing to do. Because commerce and transportation was arguing for a replacement for some of our, you know, very aging, you know, hydro mapping vessels and -- but we had a commitment by NOAA to build six or seven or eight actually new fisheries survey vessels. You know, so which one makes sense. I was

ecosystems at the time so I was fighting for fish vessels, Steve was fighting for hydro vessels, now I'm on the other side. And -- but what came out of our programming last year was a direction to the ecosystem goal team lead, which is now Steve Murowski, and -- to Captain Barnum as the commerce and transportation goal team lead to sit down and look at their requirements and find out whether or not we could be developing platforms in the future that would be able to meet more than just one mission requirement. So that you wouldn't think of the Rainier as an NOS vessel or as a hydro vessel, you know, you'd think of the Rainier or some other vessel that we could build that could be multipurpose as a platform to do lots of different missions. That kind of discussion together has not been a part of the NOAA culture until we implemented this program. So those are some examples of how this I think is helping to broaden out the discussion within NOAA and I'm sure Steve will have an example or two to tell you as well. Okay. Yes, sir. No.

DR. LAPINE: Can you hear me now?

MR. DUNNIGAN: No.

DR. LAPINE: Can you hear me now?

MR. DUNNIGAN: Yeah.

DR. LAPINE: Okay. Going back even further.....

UNIDENTIFIED FEMALE: Closer to the mic.

DR. LAPINE: Closer to the mic. There we go. Whoever thought they'd need a mic to hear me. At any rate, going

further back when the Admiral issues this yearly guidance memo, who helps him write that? Because obviously that impacts the whole process.

MR. DUNNIGAN: Back earlier in the slides you saw the line offices in -- yeah, here we go. Research, satellites, oceans, weather, operations, fisheries, right in the middle there, program planning and integration. That's a new line office that Vice Admiral Lautenbacher created, Mary Glackin is the assistant administrator and they're in charge of the planning part of doing this and also in charge of trying to get the line offices to integrate better. So there's two major things that Mary Glackin's line office does. But PPI has the lead for doing the annual guidance memorandum. The other products, the program decision memorandum which comes out of programming is written by our programming analysis and evaluation office, PA and E.

DR. LAPINE: How do the folks in this PPI, how do they know what the programs are doing? I mean they seem so far removed from the day to day and the operations and the trauma of the programs. How do they have enough expertise to give Admiral guidance on what NOAA should do?

MR. DUNNIGAN: Well, two ways. First of all, their leadership is very engaged on an ongoing basis both with the assistant administrators and with the goal team leads. Mary meets regularly with the goal team leads and with the program managers. She knows every one of those 44 managers and is

talking to them on a consistent basis. The other thing is this office has almost no budget. They get their staff from the lines and the goals. So we have a couple of NOS people that are sitting over there staffing that, they'll be there for a year or two years and then come back. So that sort of keeps them fresh all the time and keeps people working on their programs who've been involved and understand and can see how these things work.

CAPTAIN HICKMAN: Is it -- it's okay to speak about the 22nd, am I correct? Well, something -- it's ironic that you ask that because the -- Mary Glackin and Bonnie Moorehouse and Maurine -- her last name?

UNIDENTIFIED MALE: (Indiscernible).

CAPTAIN HICKMAN: She's not. Okay. They're going to be in Houston on the 20 -- well, the 21st for other reasons, I guess the Ronald Brown which I actually piloted out Saturday before I came here, just happened to be there. They're checking air quality now but we were joking as the pilots that we had to hire somebody or somebody -- the government's paying to tell us our air stinks in Houston but we already knew that but that's what they're doing, air quality right now. But Mary is going to be on the pilot boat, we've -- we're going to take one of our pilot boats and they'll be on the boat for about four hours so they can see our nav systems, the ENC's, how we run the ports program, so that's part of the education of -- or where they get their background on the actual ongoings of what NOAA provides.

So that's -- I think is extremely important, coming up for that visit.

CAPTAIN BARNUM: If I could add something to that. And that all came from dialogue with Mary. Mary had asked me one day -- Mary's background is from the Weather Service, she worked in NSBS (ph), and said she'd like to learn more about commerce and transportation, she was going to be in Houston the 21st and like to stay an extra day and I said Houston would be a perfect place to tell you about commerce and transportation, to talk about the importance of height modernization and Vdatum and ports and bridge heights and, you know, on and on and on and on and put in on the water and actually seeing it in action. So that's going to be both Mary and Bonnie together so two parts of that PP, the two P's, right at the front end. And so it all goes into educating folks, it's one my challenges to educate and have a story and make it compelling them -- for them to include the priorities in the AGM and include the priorities in the program plan, which ultimately gets reflected in the budget.

MR. DUNNIGAN: Do we have somebody on the phone now?

ADMIRAL WEST: I don't know if I should announce myself or not.

MR. DUNNIGAN: Yeah, you should.

ADMIRAL WEST: Snowing up there?

MR. DUNNIGAN: No, it is not snowing up here, it's a beautiful balmy 85 degrees and the sun is shining. You can see

right through me, can't you Admiral?

ADMIRAL WEST: (Indiscernible). Whenever somebody speaks into the mic clearly I can hear you, other than that it cuts out.

MR. DUNNIGAN: Okay. Getting a little bit of feedback here. Why don't we make sure that if you're not speaking your mic is off, the green light's off. And if you -- it does have to be on the whole time? Oh, okay. All right. That sounds like Admiral West, am I right?

ADMIRAL WEST: Speaking.

MR. DUNNIGAN: Welcome.

ADMIRAL WEST: Thanks.

MR. DUNNIGAN: So let -- as I was saying, we have any number of different fiscal years at various stages of this process going on at any one time. And so let me say this is August. We're currently right now executing the fiscal '06 budget. In October we will start closing out the '06 budget and we will begin executing the '07. But today we're executing the '06 and we're hoping that Congress is going to give us an '07 budget. It would be nice if it came before the beginning of fiscal '07, but that's not likely to happen. The latest intelligence we have is that the '07 budget is going to be delayed a long time. And so we'll be funded under a continuing resolution. Problem with a continuing resolution is that they're pretty conservative usually. They limit you to

sometimes the lowest of the available marks that are out there, sometimes to last year's budget if that's lower. So we end up having to run somewhat of a shoestrings operation during the first couple of months of the fiscal year until Congress gets us our money. But nominally we will be -- begin to execute the '07 budget in October. Right now we're -- the '08 budget is gone through planning and programming and budgeting at NOAA, it has left NOAA and gone to the Department, the Department has given it back to us and we've made some changes and the Department will in the next two weeks be submitting the '08 budget, the one that the President will announce next February, we'll be submitting that to the Whitehouse. And what will happen is that goes to OMB, they'll review it, they'll have questions and priorities, it'll, you know, iterate its way around at least once, maybe twice, before the final decision is ever made and all packaged up so that the President can announce them. For '09, we're right now in the process for doing '09 and it's a five year program and every year, as I was saying earlier, we start planning in March, so we started the '09 process last March, and right now we're still doing planning, programming for '09 will start in -- right after Labor Day and then we'll move ahead and by next February we'll finish programming and we'll begin our budgeting for '09. So -- and then as a part of the programming, it's a -- it's always a five year program so we've started thinking about what we want our profiles to look like

for '10, '11, '12 and '13 as a part of the '09 process. So you can see that at any one point you've always got at least four fiscal years of program, planning and budgeting going on at any one time. And the out year planning of it is actually a little bit broader than that. So you're looking at about eight years worth of work at any one time. But, you know, in order to backtrack from when Congress has to appropriate, the President has to propose and we have to get our work done, there isn't really any other way to do it. And that's not new by the way, I mean this has been sort of a part of the federal budgeting cycle for a long time, this sort of very extended, attenuated set of opportunities to deal with these issues. Okay.

So we do this because, as Admiral Lautenbacher has said, society needs the work that we do, things are changing, population growth, competing demands for limited resources, increasing expectations for highly reliable weather and climate information are all driving the critical responses that NOAA has. And we're fairly unique in our ability to be able to deal with them. So his view, and I think it's true, is that NOAA can only be successful by building a team that works and thinks together. And that's what we're getting as a part of our matrix management process.

What I'd like to do now, the -- what we've been talking about, let me just do a check of the group here and make sure that we're all together. We've been talking about the big

process that we go through at the NOAA level for programming and planning and budgeting and sort of how it works and just to open you to how complicated it is and how it fits into the matrix vision for what NOAA does. What we're going to do now is we're going to drill down a little bit into that to something that the panel is more actively engaged in and that's that goal that deals with commerce and transportation that Captain Barnum is the goal lead for. But before we drill down I want to make sure that we're okay, that we've got -- have some sense of how the bigger picture works which is what I've been talking about. Anymore questions there? Bill.

MR. GRAY: Far be it for me to argue with a system that the government has adopted. It strikes me as one that is so complex that it's almost impossible for an outsider to understand what it's all about. I really have the feeling, as I have for many years, that the importance of hydrographic information just gets lost and it has gotten lost for a very long time indeed. And the National Academy of Science has commented on this, others have, we did an INTERTANKO, we produced the MTS report and so forth. And the long and the short of it is in what's getting done nothing has changed, the priorities haven't been increased at all. And I don't know whether that's a system flaw or the fact that there's just so much going on here at one time. We heard in San Diego a year and a half ago, I can't remember who it was, whether it was Mike

or Charlie or somebody like that, talking about how this process worked. And I asked him afterwards, I said how much of your time is spent on all this planning stuff and the answer came out just over 50 percent and I thought, well, you should be doing things instead of making multi-year plans that are all going to be impacted by decisions that are yet to be made and it just strikes me as hugely complex and -- the fact of the matter is commerce and transportation is getting the back of the hand of the government just as it always has in my experience.

MR. RAINEY: Tom.

MR. SKINNER: Trying to get this on. Is that on?

MR. RAINEY: Yep.

MR. SKINNER: Tom Skinner. I just wanted to respond to Bill's point and it is very complex and halfway through I just sort of think where am I in this whole process and how are we ever going to get to the end. I think it's critical for us to know it and figure out how the system works for the very reason that you raised, Bill, in that so far -- particularly you've been at this a lot longer than I have, that you haven't seen any change. So I think this is really critical to sort of say, well, how do you change the system or how do you get -- where do you find the pressure points to actually effectuate some change. So I think this is very useful. I agree with you that it's very complex, it's complex at the state, local, any level where you do a budgeting and planning process, but I think it's pretty

critical.

MR. GRAY: I would just re -- my experience was when you wanted to get money the final decision was made on a memorandum that was never allowed to be more than two pages long. Whether you wanted to build an oil refinery or 15 ships or anything else like that you had to justify it to the people holding the purse strings which was the management committee in two pages and there were certain things that had to go into that and that's the way they made their decisions. And -- excuse me? They still do the same thing, I can tell you.

MR. DUNNIGAN: You know, you're right when you point out that this seems to be a complicated system. NOAA's a big agency, it's a very complicated business that we do when you add, you know, all the satellite programs and of course those have made the front page lately too, you know. So I -- the issue -- I try to simplify. All right? And the simple approach that I have to this is I have to figure out a way, Steve has to figure out a way to make this stuff come alive to the people in our agency who are making decisions. And that's a struggle, that's something that we have to continually work on. NOAA has a lot of very important things it has to do, commerce and transportation is one, ecosystems obviously is another. You know, we're in hurricane season and the Gulf of Mexico and the south Atlantic and the Atlantic coast and in Hawaii, almost got hit by a hurricane there three weeks ago. So, you know, and

NOAA's expected to respond to all of this. You know, how do we fight to make sure that commerce and transportation gets the recognition that the people need to have it to get is one issue. How NOAA fights to get, you know, the kind of recognition that we think NOAA needs for all of our important programs, you know, in a world where there are so many of these priorities. And, you know, that's why I think that the effort the Corps led to bring together this Friends of NOAA group and fight for a -- they ended up fighting for a budget that as a federal official I can't support because the -- it's more than the President wanted. But, you know, they argued for a four and a half billion dollar NOAA. And it was really one of these times when the NOAA community started coming together and, you know, rather than having all of the pieces come in and ask for, you know, my little piece here, your little piece there. And you see that the Senate mark on our budget for '07 is $4.4 billion, $4.3, you know, pretty close to the number that the Friends of NOAA group has been trying to promote. You know, the other side of that is the House budget. The House budget is a 46 percent reduction for the National Ocean Service from our current year funding. So -- you know, and right now the conference is going to have to figure out how to make that. What we can do is to help tell the story about why these things are so important and this is giving us a very structured way of doing that. You know, it's one thing for me to go off the reservation and go up to Capitol Hill

and try to trade and get some things done. It's another thing for me -- and that'll last as long as I'm here and then it's gone. It's another thing for me to try to build a system in NOAA over the long term that can help articulate priorities and move the thing forward and that's what this is all about. You know, if you were to ask me today in this room is all of this worth it I would say I'm not sure and most people who are involved would say they're not sure. But I think we would say that it is giving us a very structured way to understand what our priorities are and to evaluate priorities against each other. And so in that sense I think it's a worthwhile thing for us to do. But, Bill, you're right, it is not perfect at all and it's not the end of the game. We have to do a lot more I think to carry this on. Elaine.

MS. DICKINSON: Elaine Dickinson. It sounds like you're pretty locked into this system now because, as you said, Admiral Lautenbacher wanted it and it's the structure you've been using. You know, in a couple years we might have an entirely new administration, well we will. Does that mean that this whole system could go out the window and you're back starting all over with something entirely different or do you think it's this is it for the foreseeable future?

MR. DUNNIGAN: Well, certainly for the foreseeable future on the assumption that our current leadership stays in place until January 20th of 2009. And it typically takes a year to

get new leadership, new political leadership in. So, you know, for the next three years, which is always the foreseeable future in a government bureaucrat's life, I think we're going to have this to deal with. Over in the Defense Department the word is that, you know, the MacNamera people brought this system in and over the years it's been frustrating and they've wanted to get rid of it and every time they try to get rid of it they find they can't. It may be a system that, you know, develops enough of a foundation of its own that, you know, it does continue and it continues to get some attention. But you're right, I can't predict that, you know, new political leadership coming in wouldn't look at this and have the reaction that many of us have and say, you know, we got to find a different way to do it. Or they might -- may just modify it. But that we really can't speculate about.

So -- well, then let's shift, let's talk specifically about the commerce and transportation goal and the programs that are underneath it and the best person to do that is the goal team lead and that's Captain Barnum. So I'll turn this over to him now.

CAPTAIN BARNUM: Thank you, Jack. This is Steve Barnum. It's a pleasure to be here to talk to you about commerce and transportation because it's something I certainly believe in. It's a dual hat for me. In addition to the Director of Coast Survey I'm also the goal team lead for commerce and

transportation and.....

UNIDENTIFIED FEMALE: (Indiscernible).

CAPTAIN BARNUM: Yeah, it's on. Is that better?

ADMIRAL WEST: Yeah, you're cutting out.

CAPTAIN BARNUM: How about that? All right. Steve Barnum, commerce and transportation. I'll just repeat that commerce and transportation is certainly the -- something that I believe in, something that I think has a strong role within NOAA and commerce, it fits well with being under the Commerce Department. It's all about what we phrased in the -- in telling our story about information that moves America and that is meaning that American people has a ability to know where they are. Can you go to the next slide please? I'm sorry, the previous slide, we're missing one. That one. Know where they are, get to go -- get where they are going safely and efficiently, make appropriate decisions for safe, secure and efficient environmentally sound transportation network and that these system of services go uninterrupted during times of emergencies or critical events.

Next slide please. Some of this I showed in the Houston meeting so I apologize for the repetition. This is a new slide I don't think you've seen. But this is a slide the Admiral asked for from all of the four goals and wanted to know what our national interests are, such as we are the largest trading nation. We -- the marine transportation network carries over

three-quarters of the weight of all international freight. These are statistics that the Admiral can use in his discussions with the Hill and commerce. And what does that mean for NOAA investments? It means that marine transportation, safety and efficiency through nautical chart products and services, real time water levels and currents, accurate weather for surface, marine and aviation. Spill response, Jack was talking earlier about the safe seas, that we need to be prepared, god forbid, if there were a split that we'd be able to respond to it and effectively clean it up. And also satellite based search and rescue is within a commerce and transportation goal.

Next slide please. These are the programs that make up commerce and transportation, these are the seven or six programs. There's actually seven programs, there's one called commercial remote satellite licensing that is kind of an oddball program that is under review now to be moved to another program under satellite services. But the core components or core programs of commerce and transportation are the Marine Transportation System, geodesy, aviation, marine weather, surface weather, emergency response. All these programs go into fit making our transportation network more efficient and keeping it up and going if there were an incident.

MR. GRAY: Steve.

CAPTAIN BARNUM: Yes.

MR. GRAY: Sorry to bother you, but you put something up

like that, I guess it's under geodesy that you've got water depth, tide, current, all these things. And you got three weather things and nothing even mentions tides, currents or data -- water depth information.

CAPTAIN BARNUM: That's -- I don't want to say it's buried, but it's.....

MR. GRAY: It is buried.

CAPTAIN BARNUM: .....within Marine Transportation System and I'll go -- drill down a little bit further. But to be able to wrap this up into a larger message to -- that the Vice Admiral can then, you know, as a package so to speak about commerce and transportation, the services within that, how do they fit into the American economy of making it move more efficiently, making the supply chains of getting goods and services on the ships and getting them into the ports and getting them on a rail, getting them on the planes, getting them to the Walmarts, getting them to the Home Depot. So the commerce and transportation is more than just currents and water levels and charts.

MR. GRAY: It's a lot more than that. All I'm trying to say is in marine we have got information that's hundreds of years old being used on ships that are brand new.

CAPTAIN BARNUM: Agree.

MR. GRAY: We have aviation, they've got good maps, they've got current maps and things like that, we don't. Those

points don't get across in something like this.

CAPTAIN BARNUM: Well, to be fair, some of the issues with aviation weather, they do have some antiquated systems, they do not get digital -- one of the issues in aviation weather is getting digital four dimensional weather information into the cockpit so that they can make more critical decision.

MR. GRAY: (Indiscernible - away from microphone).

CAPTAIN BARNUM: Right. Right. Well, their issues in aviation weather is more, you know -- you know, the delays that you see in the airport. So I hear you, I hear.

Next slide please. Marine Transportation System. This is integrating elements, this is where I'm drilling down further, of Coast Survey, NGS, CO-OPs and National Weather Service to promote safe and efficient navigation. This picture was taken at the Tacoma Narrows Bridge where they are building a new bridge. So, again, the issue of water depth, obstructions, height of the bridge to be able to fit this equipment through. And these are the slides that I use and the same messages that I use both to senior leadership, NOAA, and also on the Hill, so talking about these services and how they affect the economy of the nation.

Next slide please. Geodesy, infrastructure for consistent, accurate, timely positioning; models and tools for describing phenomena for positioning the national spatial reference system; and enhancing local capacity for accurate

positioning. Certainly important to what we've seen after Hurricane Katrina, Rita and the rebuilding. I continually see articles from our navigation manager in Louisiana talking about the needs for accurate heights and that the -- there is so much concern about the FEMA maps and the questions with those and so now people can't rebuild their homes, they're on hold on whether they can rebuild their homes. So it's bringing to light the importance of accurate heights. And of course that all plays into the larger picture of, you know, how high is a bridge, what's the gap of the bridge, what's the actual datum for the bottom, et cetera.

Aviation weather, talked a little bit about this earlier. This is having accurate and timely information into the cockpit, a four dimensional aviation gridded digital database. Right now it's pretty much text based. Being able to look further into the future how -- similar to the Marine Transportation System how are we going to cram more aircraft into the same amount of airspace.

Next slide. Marine weather. Certainly fits with the services that we provide to the mariners, he needs good weather to be able to get in and out of port, to be able to sail across the seas safety and get to his destination on time. Working in this arena to improve our models and improve the delivery and quality, timeliness of the data. Certainly marine weather is also very critical in evacuation of ports for Marine

Transportation System. Where is a hurricane going to hit, where do the ships need to go to evacuate or don't need to evacuate.

Next slide. Surface weather. Similarly this is fledgling program within commerce and transportation. This is basically integrating the numerous mesonets that are across the country. Many states have their own weather observing systems along this -- the highways, interstates. Taking those and leveraging those investments into a system where we can basically assimilate that data, quality control it and then put it back out to the users for value added. That information would also be used for quality control, it'd be also used for improving our surface models so that we can then do better jobs of routing surface transportation, knowing when they need to salt the roads, knowing when potentially black ice is ahead of you on the interstate before you hit it, those kind of things. This is where this is going with surface weather. All again tied into how do we get the goods off the ship, get them to the port, get them on the rail, get them on the highway, get them on the airplanes and get it to the destinations at the Walmarts and the Home Depots and the grocery stores.

Emergency response. This is, again, heaven forbid that if something were to happen, but we certainly saw it happen in Katrina, Rita. We practiced it in Safe Seas in San Francisco last week. This is preparedness to respond, responding to emergencies. Certainly the NRT's and the Office of Response and

Restoration responding, working with the Coast Guard to help mitigate the numerous oil spills and contaminated -- contaminants that were sent up into the marshes and into the wetlands.

Next slide. The C and T FY '09 priorities. This came out of the -- pretty much out of the AGM and that was increase timeliness, quality and usability of navigation products, positioning weather information, emergency response, integrated products and services to mitigate impacts from extreme events, again on a high level.

Next slide. Critical issues for us in the future. Certainly nautical chart updates. Katrina, Rita, we're just beginning to scratch the surface of what happened down there and understanding all the debris that went in the water. Updated elevations, certainly for the area trying to understand -- to modernize height modernization and -- on a regional basis so that we can do a better job at predicting emergency escape routes, determining storm surge inundation, determining how best to rebuild the infrastructure. Water levels and PORTS certainly play into that also. That's some of the cross goal coordination that the water levels and PORTS are important to the Weather Service because they help predict storm surge inundation. This is some of the connections that John was talking about and some of the others of this cross communication that -- why suddenly they should be interested in water levels and also the PORTS

data. Certainly for emergency response the PORTS data is critical for being able to predict a spill. I know that in Calcasieu, when you had that spill, Adam, down in Calcasieu they had a spill down there. If they had had a PORT system I think everybody would have had better information on how to boom it and deal with that incident. Yes.

MR. MCBRIDE: Thanks for mentioning that, Steve. Adam McBride. And I wanted to bring that up. At the end of June in the Calcasieu waterway we had an oil spill, some 100,000 barrels of crude oil into our waterway and ultimately about 50 percent of that was contained in the various bayous and sections before it hit the main channel. But we did end up shutting down the channel with about 40,000 barrels of oil, the 12th largest port in the nation was shut down for over two weeks. We're hearing right now about the Prudhoe Bay pipeline cutting supply to the U.S. by some 400,000 barrels a day. Well, we have 500,000 barrels a day that wants to move in and out of our waterway that was affected. We went to the strategic petroleum reserve and we were out of business from a waterways point of view for over two weeks. Now during that time Coast Guard and the offending oil company, Simco, certainly took the lead in responding. But one of the areas that would have been, you know, tremendously important and one of the areas we did not have good information on was accurate tidal and current models. And given the waterway systems in Louisiana the entire team, unified command,

could have responded much, much better in terms of positioning its equipment and resources if they had known in which direction that product was going to flow more accurately, more than just the intuitive sense of those of us who were in that waterway, the pilots and the captains, et cetera, and we could have done a lot better. And when I asked that question at the daily briefings everyone was just, you know, tremendously clear that good tidal information, good water flow information would have aided that response. And it's something that I come back to and I've come back to over and over and that is this PORT system even in the straights that it's in right now in terms of funding and the difficulties that we're seeing with it should not be limited to those ports that have the money available, safety is not a function of who can afford it. Priorities need to be set of course but the PORT system needs to move up that priority list. We've said this over and over, we certainly have not been adequately heard as a group on this subject, not only from this panel but the industry for many, many years. And I just want to reinforce the fact that, you know, 100,000 barrels of oil went into the water. Surprisingly little federal or national press coverage on that, didn't seem to get very much attention which it looked -- what it did do was it forced the price a barrel of oil up $3.00 which affects everybody. The PORT system could have aided that response, got us back to work much, much sooner. And that's not to detract in any way from the response efforts

that NOAA, Coast Guard and others made, but we could have done better with better information the PORT system would have provided. Thanks, Steve.

CAPTAIN BARNUM: Thank you, Adam. A very important port in -- point in that, again, this is some of the messages that I take to certainly internal NOAA leadership and certainly on the Hill is that these systems have dual use, that they're for protection of and efficiency of commerce so they give people the data up front so they don't have the latest information to be able to safely -- or move these large vessels through these ports. So they have the accurate data in hand and then if something happens then we have the system there to help us respond to it quickly and efficiently. Next slide.

CAPTAIN ARMSTRONG: Steve, could I ask a question?

CAPTAIN BARNUM: Yeah, go ahead.

CAPTAIN ARMSTRONG: Andy Armstrong. Steve, I see that we have a goal that's called weather and water and then we have a -- we have the commerce and transportation goal and in that there's aviation, surface and marine weather. And I just wonder is the incorporation of weather into commerce and transportation providing any synergy or benefit or enhancement to the other parts of marine transportation or is it simply spreading weather into more goal teams to increase the leverage for that particular part of NOAA.

CAPTAIN BARNUM: This happened before my time, I kind of

inherited that hand of programs that was set up. Jack may have some history on that. But as I see it and how I've woven it together is this -- basically through the present measures on the committee and the Marine Transportation System. So we had the President's backing, all these things fit into the bigger picture of commerce and how do we move -- this is information, again, we -- as we -- I phrased it earlier, information that moves America, giving information to the folks that are trying to move commerce either on surface, rail, certainly on the Marine Transportation System. So I see it as a benefit I think having those programs within the commerce and transportation. Does that answer your question? Great. Yes, Mike.

MS. SZABADOS: Steve, I'd like to -- can you hear me? Is this on? Okay. Mike Szabados. I'd like to add to that a little bit is that it's -- it is crosscutting and in some respect I'll take the Water Level Program. In the -- the water and weather is actually -- has identified funding increase to the National Water Level Program in that part of that portfolio, that goal there. Specifically they increased the -- we have 16 -- I'm sorry, 15 new tsunami stations which are inland stations which are used for marine transportation. They fund that as well as -- they also -- for densification of the inland stations in the Gulf of Mexico. So there is some crosscutting and some benefit of -- and the program is being integrated like that.

MR. DUNNIGAN: Let me just comment on two things that were

a part of Steve's presentation. One is to note that in this concept of a matrixed approach to the agency. Steve, as he said, wears two hats. He's an office director for Coast Survey but he also at the NOAA level is a goal team lead for all of the commerce and transportation programs which may not be executed within NOS. A lot of what he is responsible for as a goal team lead gets executed elsewhere in NOAA, mainly in the National Weather Service. So -- but they're a part of commerce and transportation because of the way that they provide the information that moves America. And so it gives us an opportunity to tell that part of a comprehensive story of how NOAA supports commerce and transportation, you know, without having to just say this is what NOS does and let the National Weather Service people deal with what they have. So that's the whole idea behind this whole approach of matrix management and taking a very thematic view in our programming and planning at least of what it is that we're trying to do.

The second thing that I would point out to you, just to go back. Could we go back two slides? Yeah. Right now this is what Steve's working on for '09 and because of the decision that NOAA made in the guidance memorandum, the annual guidance memorandum, he is lining up his priorities for '09 to '13 according to these bullets. You know, that -- I would say that looking at this slide his top priority as the goal team lead is to focus on navigation projects. And then positioning capacity

and then weather information, emergency response. Not that there's -- I don't know if -- you wouldn't say there's a priority to these or not, Steve.

UNIDENTIFIED MALE: (Indiscernible).

MR. DUNNIGAN: Yeah.

CAPTAIN BARNUM: There's not a priority to these.

MR. DUNNIGAN: But these are where he's going to focus his FY '09 programming decisions. And coming out of that will be direction next February to the budgeting for '09. So these are really very important and he and me to help him, we got to figure out ways of trying to make this story come alive as we try to do this. And then in the next slide I think you see, you know, the take that the goal has on where some of the longer term issues are. So this is very directional in a sense as to where NOAA sees that it needs to go. So these are -- from the standpoint of the commerce and transportation goal and what it's doing right now these are the two slides that are telling you what is on Steve's mind as the goal team lead. So, you know, and I know he would, you know, love to have your help in helping to sort through the opportunities and the priorities that are here.

MR. RAINEY: John. This is Scott Rainey. Could I just follow right in on that? And as we said as the panel, I mean I had a question as far as the slide you show where, you know, you're working on a number of budgets over there. One of them

is a process question about, you know, where can we engage with you or interact with you to, you know, help just as a process timing question, you know, in the PPBES project process. And then the other one is we talked a little bit in our meeting earlier about, you know, the substantive issues if there are -- as you look at this list here are from the three program offices we primarily deal with up there, specific substantive issues that you could use input from the committee on if anybody had some ideas on that. But just -- you know, we learned at our last meeting it sounds like there's a little shift in how NOAA's going to do business about getting stakeholder's input. You talked earlier in the presentation about the -- what had been seeming to be a fairly structured annual stakeholder strategic planning thing, it sounded like it shifted a little bit where you could provide comments and things. So just knowing where -- how we can set the panel up either on a schedule or to interact with you so we can have a, you know, effective -- provide some assistance in the process.

CAPTAIN BARNUM: Steve Barnum. Yes, certainly the input that the panel provides and the recommendations provides me support as I go and tell my story and providing support within making my case to NOAA leadership, making my case to Mary Glackin and Program Planning and Development, the AGM. I can say to my -- personally say how important this is but with the support or the recommendations from this panel provides the

background or the reference of why this stuff is important. As is also hearing from our constituency such as the Maritime Safety Navigation Coalition, so hearing from those folks. Hearing from the other constituents within the community talking about how important NOAA's services are. And I can then reference those as we move forward in making a case. So as far as interacting with the panel for the Marine Transportation System part of the portfolio I think it's very appropriate to weigh in on that. And certainly you could probably weigh in on the other issues to, how they fit into the larger picture. Yes, Bill.

MR. GRAY: Bill Gray. But -- okay, having this as more or less your work list, as Jack has said, for '09 planning and so forth, what do you do with these things? For example, complete nautical chart updates on the critical areas. Is that all going to be done within two years or 10 years or 20 years? How about ports, we've got ports at -- 10 or 12 ports around the country but 100 and some have been named. From a commercial point of view there's probably 50 or 60 of them where it's very important. When are we going to get those done, two years, 10 years, 20 years? I mean what do you do with -- these are words and how can we help you do that. Or another one, Andrew mentioned this when we talked about after the Athos I, that he found in New York when they brought in after something had happened to see what do the Army engineers do, is that channel

as deep as they say it is and you found out no, there's stuff in it just like there was stuff in the Delaware River. How do you take those things and get them to we will do this in the next three years and this is how much money we need, now damn well give it to us?

CAPTAIN BARNUM: That's what I try and do without maybe -- more diplomatically. But certainly it all goes -- again, we talked about the process and making the case and then, you know, certainly there -- we provide our 100 percent of where we want to be if we had all the money in the world, that's the planning part, what will we do. And then we have to come through the realities of the programming where we are giving a -- given a figure or top line and then we have to figure out within that constraint of funding what are we going to do and I have to look at the portfolio and look at where I'm going to put the emphasis within there. Certainly I made the case to -- in the program plan and looking at my portfolio am I going to -- taking the analogy of a mariner, am I going to go to sea with crappy weather and a good chart and then get my rear kicked out there with -- risking the ship or I'm going to have a -- you know, good weather and a crappy chart and potential of running aground. So these systems have to fit together and they have to work as a system. And so that's my message to these folks, you can't really cherry pick it, we need to put emphasis on the whole system. You can't put full emphasis on, oh just say water

levels and currents, you need the chart data and the surveys. You also need the spatial reference system that goes with that. So it has to be looked at as a complete system.

MR. RAINEY: Steve, is there -- I mean we talked about the system being a tool and, as Bill said, this is helpful kind of in the annual guidance memorandum, but is there -- does the system generate decision documents that has some specificity? In other words when you have to make hard choices between certain programs or different levels. We've talked a couple times about the 100 percent requirement, for example. Is that something, could we get to the specificity of that where would it be beneficial to have -- if we could be agile enough to respond, I mean would there be any value to you in us looking at a little bit more specifics and just giving our two cents worth on we think we agree or just a -- you know, on that level of detail? I mean I'm just wondering when it really -- when push comes to shove, and we looked at the -- you know, the future ain't what it used to be type of an idea, there's going to be tremendously difficult decisions that you'll have to make and prioritization and sub-optimization as you move forward. And I just don't know if we're getting any traction or if our recommendations that -- what we've been able to put forward are going to be specific enough beyond all this is important and we need to do it all. And I don't know if there's any way if this group could ever get to the level to help, you know, comment on

some of those really specific details or if that's just too far into the weeds as far as your perspective on how we could -- would operate. Because I -- it just seems like -- I'm just kind of picking up on Bill's point and then a couple others on some specific issues and I don't know if there's a way that we can better focus our recommendations or be of anymore assistance in that process because I think it looks -- from a goal team and program, you know, view it's going to -- there's going to be a lot of hard choices in the future.

CAPTAIN BARNUM: I think getting down to the specifi -- to the weeds I think might be a much -- for this panel I think stand at a higher level in supporting the goal at a higher construct I think would be more constructive certainly for the process. The -- as I mentioned earlier, the programming and the particularly planning base all their decisions based on what they're hearing from the constituents. If they're not hearing from us where they hear -- then they -- you know, they -- the squeaky wheel gets the grease so to speak. I know that we -- you've provided input in the past and the Marine Transportation System constituents have provided input in the past but there's some other constituents out there that NOAA has which have pretty strong voices out there too. You're talking about the weather community, you're talking the folks out there. Certainly with the ecosystems and the fish docks and -- some pretty loud voices out there and -- compared to what the Marine

Transportation System. The MTS is -- I participated in some of the CMTS meetings, is pretty quiet pretty much in the government compared to some of the other folks that speak up. I know that in the recent strategy for -- it was a workshop, Andy McGovern was there, that was the CMTS strategy session and -- Bill, were you there? Trying to think. No. They were talking about the -- basically is that we have an urgent need right now, it's got to happen now, we can't think 20 years from now. The infrastructure and the pieces that we have to put into effect to be able to address this potential doubling of trade have to be effected now, not five years from now.

MR. GRAY: Again, Steve, one of the things that happened, the whole commerce and transportation issue and safety of it with what we did with our port terminal safety study, that really got a kick going, it got the MTS going and so forth. But since 9/11 as far as I can see nobody's interested in that there, it's all security now and security is eclipsing everything else. And that's the way I view what the government is doing, I mean and the Coast Guard, everything else like that. And the things we talked about five, 10 years ago, they've totally lost traction.

CAPTAIN BARNUM: It's interesting you mention that and I will agree with that because in the Harbor Safety Committees it was all about the safety of transportation and then the pendulum swung to the other side of security. I think that the pendulum

is swinging back the other way, maybe a little bit more balanced. I can tell you that NOAA is in discussions with Navy and Coast Guard about repeating what we did in 2002, 2003 with the Homeland Security Surveys and potentially providing that service on a repetitive basis. In addition to such data not only for the security of our transportation system for having accurate data for charts, water levels, currents. In addition if something -- somebody put something bad in the water, again like the PORT system, they'd have a good idea where it went. Same thing if somebody put something in the air. So we are looking at that angle of working with the folks in DHS and Navy and Coast Guard.

MR. GRAY: Well, I know -- I guess it was the API meeting in June, I was not there for API but I've talked to a number of people that were there. And they said oh, right, people came, they talked about the wrong things. And the ones that I've talked to that were there say they really are not that interested in what happens after Katrina or something like that, that's really not got much to do with shipping. It's not got much to do with the Marine Transportation System in the context that we did with -- when you're talking about the Marine Transportation System. Now that may sound like anathema to you because I mean you've got to deal with what's going on in the aftermath of Katrina and other natural disasters like that and the problems Adam's got down in -- all true, but I mean it --

those things all have to be addressed together. But the point I'm making is the bad things that happen with poor data, marine data, in this nation have never gotten on the public's radar screen the way having a good hurricane could do for you. Let's be blunt about it. Just the same as even though pipelines spill six times as much oil as ships, unless it's the kind of pipeline problem that BP's got up on the North Slope, you don't hear about it everyday or anything like that. The public doesn't even know about these things except when you get something like Athos I and they say, oh, it's a damn single hull tanker again. Well, it was the government's fault. So I mean that's why I'm so rabid on these things, I just -- I say what can we do to say something that will really get people's attention. Thank you.

CAPTAIN BARNUM: Jon Dasler.

MR. DASLER: Well, maybe just to follow up on what Bill was saying. I mean we've been doing some charting in the Chesapeake for NOAA and, you know, there's a number of things that -- laying out there that are uncharted, barges, sailboat wrecks and actually an aircraft that ac -- when we did a search on it was reported by NTSB, it was an aircraft that went down in 1989 that's laying in a shipping lane. So there is a lot of -- and it doesn't get attention, I don't think the public knows that this kind of stuff is just lying in weight out there that's uncharted. But I did have a question back on the critical issues and what the issue is on the vessel removal. Can you

clarify that a little?

CAPTAIN BARNUM: (Indiscernible). That was working with Coast Guard, that was office response and restoration. That's working with -- after Katrina, Rita and moving all the vessels that were blown up into the marsh and hinterland. So that's what that was about, mitigating any potential chemicals or petroleum that was aboard, that was it. Yes. That's going to be ongoing I think for a long time, I think as Adam will testify. In the bigger picture, moving along here, mention -- oh, I'm sorry. Andy.

CAPTAIN MCGOVERN: Andrew McGovern. Yeah, I guess I was kind of the same place Bill had -- said where we've got to get the word up, and I guess you said it, you know, at -- you know, there's a lot of other loud voices out there. I guess, you know, you've got all those goal teams and it seems like, you know, we've got to get our message through NOS and commerce before it even gets -- well, the classic example is the PORTS system. We were -- we had this committee up over a year before we finally found out that -- we thought that it was Congress that was killing the appropriation for PORTS and then found out it never made it out of either NOAA or Department of Commerce depending on the year. And so I guess that's the question I had was, yeah, who makes that critical decision between planning and program. I mean that's the -- let's face it, that's where the money is. I mean that's where, yeah, the plan is -- yeah, this

is, you know, what would you do if you had a million -- you know, if you had all the money in the world and then, okay, you don't so therefore this is what you're going to do. Who makes that decision because those are the people we have to get to, you know. Because I mean I look at this, I mean the typical government reactive thing, I mean everything on your critical issues is post Katrina, everything. And, you know, a lot of it has to do with Marine Transportation System and a lot of it doesn't but it's going under transportation. You know, like vessel removal. Well, that's -- removal in a channel is one thing, that's removal up in a -- you know, that's way up in a marsh. It's out of the way now. As Bill said, you know, it's like not my problem anymore. You know, it's another -- like who's paying for that, is that coming out of the transportation's -- you know, Marine Transportation's little budget or is it coming out of, you know, the.....

UNIDENTIFIED MALE: Ecosystem.

CAPTAIN MCGOVERN: .....the ecosystem. You know, this is what I mean. This is where -- but where should it come from. And this is I think some of the arguments we had. Even you talk about the height -- you know, getting height modernization. Well, some of that has to do with Marine Transportation System but a lot of it has to do with the housing and things like that. That's not Marine Transportation. So therefore how are we getting I guess, you know, down to that hard line because we

still haven't gotten PORTS and we -- I thought we've made about as much noise as we can on that. But we still haven't gotten that, in fact it got zeroed out -- instead of going up we're going down, you know, depending on whose budget you look at, you know. At the -- you know, if you look at the congressional -- I mean at the House mark, I mean we're going backwards. And that's when we went and we had this national -- this strategy session for the new CMTS, I mean it was right after the House mark and I went in there and said why are we even bother here because the House obviously feels that, you know, there is no Marine Transportation System or they're not going to fund it at least, so. I guess that's my big question is who is that person or persons that decides between planning and program, you know. And then you're going to have to deal with when they say -- you know, within your different line offices, all right, this is how much money I got, I have to now make my hard choices. But who makes that choice above that I guess is my big question and do we try to interact with them to fight for our piece of the pie.

MR. DUNNIGAN: Jack Dunnigan. Good question, Andy, and it's got a couple of answers. All right? Ultimately for NOAA the person who makes all these decisions is the Undersecretary, it's Vice Admiral Lautenbacher. And let me tell you, this guy goes down the hall to the blue carpet where the Secretary is and fights and overreaches and is willing to take his lumps in return because he believes in a lot of this stuff so much

himself. The more significant question I think is what do these people respond to. So OMB or the Department, you know, will come back and say, okay, this is your priority, pay for it someplace. And I have responsibilities to execute ecosystem programs as well as commerce and transportation. So, you know, it's hard for me to have to sit down and rob Peter to pay Paul. And in the long run for all of us I don't think that's the right game to play. Somehow we've got to make the pie bigger. And that's how we have to think about, you know, where are the people that can do that and at that point you're talking about really very high levels of government and you have to impact those people at every stage. You know, there are some people in our stakeholder community who had success walking into the OMB examiners and saying this is what -- this is our take on the problems that NOAA has to deal with, just want to make sure that you know it. I think that having -- you know, at a lower level what we're planning to do for Mary Glackin and Bonnie Moorehouse in Houston on the 22nd is a good thing because, you know, this will sort of make all of this come alive to them. And, you know, when they -- they're involved in setting these numbers. You know, they will be advising the Vice Admiral when Steve right after Labor Day is going to get a planning target, he'll be given a hard number for '09 and he will be told design me the best commerce and transportation program for '09 that you can within this limit. Well, of course you want that limit to be as

big as possible and it's always bigger than the Department wants it to be. So that's how they can move forward. It's important I think for you to understand what we've been talking about, that it's an ongoing cyclic process and it isn't something you can, you know, find the person or the entry point and be engaged, it requires -- you know, to be effective at it it really requires being engaged on a consistent basis.

MR. RAINEY: Jack, this -- Scott Rainey. Do you have to the extent you can show us any idea -- I mean what -- PPBES has been around a little bit and we've all been doing our part. Any thoughts on why there's a 46 percent cut in the House side on NOS? I mean that -- I mean other than the slide that you showed with the defense and other priorities. But -- I mean does that -- did that -- it seems a little bit of a shock with everything that's going on.

MR. DUNNIGAN: Well, it -- to be -- I got to be fair here. It's a 46 percent cut from the '06 enacted level. It's a 22 percent cut from the President's budget. But that's on top of -- our '06 enacted level was 10 percent lower than our '05. So it's -- to me it's -- there's a cycle that's going on here. You know, I don't know, maybe -- and Admiral West who has, you know, been involved in this in a lot of detail or others who may have could comment on why the House did what it did. You know, traditionally there's been this little game between the House and Senate, the House lowballs a numbers, the Senate highballs a

number, we normally have ended up closer to the Senate number except in '06 we did -- in '06 we were a lot closer to the House number and it was a big hurt. You know, how it ended up, you know, coming out, it's just that the House had other priorities. You know, we're mixed in a budget on the House side that includes a lot of science agencies, includes NASA and NASA has a lot of support in the House and so they put their priorities there and not on NOAA. And it's.....

ADMIRAL WEST: Can I add something there?

MR. DUNNIGAN: Yeah, go ahead Dick.

ADMIRAL WEST: Yeah, you know, you're right, historically the House has always lowballed and the Senate's come back. But there's a big missing feature, it's called Senator Hollings. He let it be known that we would go the higher Senate mark, he's gone away. We don't have that champion anymore. You saw the results of that last year. And if there's no pain -- still there?

MR. DUNNIGAN: Yeah. The technician has asked me to announce if we can maybe -- do we have cell phones? Either turn them off or at least get them away from the mics. And I think that might be also true for people on the phone. That's one of the things that tends to interfere with the process, so if we can get our cell phones well away from our microphones it'll help. Go ahead, Dick.

ADMIRAL WEST: Yeah, I'm sorry where I cut out there. But

in any case, we didn't have the support last year and if you don't show some pain it's going to get continually worse and that's what drove us to the front with NOAA. Just as a follow on to that, we had a (indiscernible) membership on Friday. What you want to do is get to the comparees and outline the importance of NOAA and from our perspective you all talked about the importance of, you know, the transportation part of it. So get a hold of your congressman and, you know, senators and let them know that NOAA's important so when they come back this fall and they get into conference or actually quite better if we (indiscernible) that we make out better than we did last year. That's kind of where we're going with the strategy right now.

MR. DUNNIGAN: Yeah, thank you. And the other thing is, you know, people like Senator Hollings or Senator Brow (ph) and even people like Senator Stevens who's involved now, we've had some champions in the House of Representatives in the past. You know, they don't just happen, they need to be cultivated over time and you have to continue to work with them. So one of the strategic things that we need to be thinking about, and by we I mean a big community and, you know, people that are helping to organize that like Admiral West, you know, need to be looking at, well, where's the future leadership of the House going to be. You know, they turn over every six years. Frank Wolf is leaving his position as Chairman of the subcommittee that handles our budget, he's a big NASA supporter. And, you know,

who's next in line, you know, what can we do to be cultivating that person and the person behind them. That's how you have strong relationships, by staying in here and playing for the long term. And if you could criticize NOAA for anything and the NOAA community for anything it's that we haven't come at it with this sense of, you know, having a solid set of NOAA goals and programs, you know, can float all boats in the long term. You know, it's been, you know, different parts of our community coming in and trying to get their piece of the budget and it's just -- it's been too fractionated. So that's one of the things that's going to be coming I think out of this programming and planning process. There's a big emphasis on thinking about NOAA and that's what the Friends of NOAA did, they came in not with, you know, well, we need, you know, more money in Marine Transportation, we need more money in Fisheries Management, they said you got to fight for a big NOAA. And I support the President's budget.

MR. DASLER: Yeah, Jon Dasler. I think also NOAA could help itself a little bit, especially HSD if they really -- I think CO-OPs does a great job, like this pamphlet that came out in promoting their products and services and -- one thing I think that would be very interesting to see is what's the number of wrecks and obstructions that have been discovered like in the last '06, if that kind of information -- because I think people would be pretty awestruck at the number of features that are

being uncovered every year and added to the charts. And I think that would help move things a lot along that avenue in gaining recognition for those programs and funding and try to turn the tables a little bit.

CAPTAIN BARNUM: Any other comments before I move on? All right. In the bigger picture, C & T and the Ocean Action Plan, I talked about that theme of tying the purpose, why does commerce and transportation exist because -- I can point to the President's Ocean Action Plan and within that the committee on the Marine Transportation System which suddenly now involves the President and the Commerce Secretary, why is commerce and transportation important to the Secretary. My boss always says in public what interests my boss fascinates me. So -- but the -- from Admiral Lautenbacher's perspective to the Commerce Secretary. So there's certainly a large chain of folks that -- being able to tell our story and why we're relevant.

Certainly coordinate ocean and coastal mapping activities, John mentioned that earlier on being able to collect data. Our goal within NOAA, certainly is my goal with commerce and transportation, is map once, use many times. It's -- NOAA has a lot of mapping activities within it and in HSD it's all coordinated through one central point. The same cannot be said for some of the other mapping interests that occur across NOAA but we're working to try and coordinate that. And finally ultimately to improve navigation, give the data to the mariner,

the critical information they need to move commerce safely.

Next slide please. So, again the committee on transportation, we've talked about that, we'll move on. Next slide. Within the ocean government structure this aquabox was stood up to oversee the Ocean Action Plan. I won't go into any detail on this, this slide here, unless somebody has any questions. Next slide please. Future challenges.

MR. DUNNIGAN: Can I.....

CAPTAIN BARNUM: Yes.

MR. DUNNIGAN: If you go back to that slide. This is pretty significant. You know, this is the one thing that came out of the Ocean Action Plan that is really oriented towards how we coordinate and make decisions above the NOAA level. Where we're talking here about all of the agencies and you have a cabinet level committee that's been meeting twice a year. We've never had that for the oceans really before. You have the integrated committee on ocean science. The box is yellow in the slide. Actually in the Ocean Action Plan it was aqua and so we called this the aqua box because trying to say ICOSARMI was so inelegant. But this is the Admiral Lautenbacher level of collaboration and they meet on a quarterly basis and you can see who all of the various groups are. The real work that gets done in this system is at those two lower levels, the JSOST and SIMOR. What's interesting is that NOAA is the only agency that's a co-chair on both sides. And so I think it emphasizes

how critical these things are for NOAA. Rick Spinrad is the NOAA lead for the Joint Subcommittee on Ocean Science and Technology. And Mary Glackin, whom we've talked about and will be going down to Houston on the 22nd, is the NOAA lead for the Subcommittee on Integrated Management of Ocean Resources. So -- and these groups are meeting monthly and SIMOR has an action plan for moving forward. So there is a lot and it's -- I think it's more than just, you know, spinning wheels that's going on to try to focus on interagency collaborations. Hopefully what will come out of this I think is a sense of priority at a broader government level so that if these groups can agree that something like the Marine Transportation System is a priority thing to do all of a sudden you have an opportunity to get traction at OMB or get, you know, the whole administrative -- the administration apparatus working behind a budget on the Hill. So I think this coordinated ocean government structure is still sort of playing itself out to see how effective it's going to be but it's something that we want to keep our eyes on as an opportunity to make sure that the priorities are well understood.

CAPTAIN BARNUM: Okay, thank you. Finally, just wrapping up, future challenges. My number one -- I have three here, the rebuilding of Gulf, preparing for future hazards, but the number one really is this gorilla in the middle of the room, this is the doubling of trade over the next 20 years and how is NOAA

going to be postured to work with the other agencies to make sure that we have the critical data there for the infrastructure, to support the infrastructure of moving this doubling of trade and getting the ships in, getting them unloaded and getting them back out. So -- yes.

MR. GRAY: Steve, who chairs the CMTS?

CAPTAIN BARNUM: That -- currently it is Secretary of Transportation.

MR. GRAY: Secretary of Transportation.

CAPTAIN BARNUM: Yes.

MR. GRAY: And for NOAA, Admiral Lautenbacher goes to.....

CAPTAIN BARNUM: For -- no, it's Secretary Gutierrez.

MR. GRAY: Oh, Se -- okay.

CAPTAIN BARNUM: The -- it's the Secretary level.

MR. GRAY: Okay.

CAPTAIN BARNUM: So -- and then below that Admiral Lautenbacher is representative for the Coordinating Board and I want to say -- not General Strock but the Corps of Engineers is chairing that Coordinating Board. And of course Helen is the Executive Secretary that supports that Coordinating Board.

MR. GRAY: Right.

CAPTAIN BARNUM: Any questions?

MR. OSWALD: The -- in the planning process what figure do you use for growth rate, using like a two percent or three percent? You must have a standard figure. For 2009, 2013, so.

CAPTAIN BARNUM: That's a good question. That's some of the profile that the numbers that I'm given to work with. We try to look at at least -- not rooting for inflation. So that profile is given to us by programming, Bonnie Moorehouse, when we're given our line.

MR. OSWALD: And then -- well, okay.

MR. RAINEY: Yeah, a little more. For out years we're assuming current year dollars. So the growth profile is only significant in the first year that you're planning for. So he'll be given a ceiling for fiscal '09 and he'll be expected to crank into that ceiling a certain inflation or whatever rate. But then '10, '11, '12 and '13 will be calculated on that same basis, that becomes his current program. To be honest with you the government doesn't do this very well. We're consistently budgeting, for example, a two percent salary increase and we know that we always get a three and a half or -- percent or so salary increase. So we're consistently falling behind and under budgeting. And this isn't just NOAA, this isn't just the Department of Commerce, it happens all over the government. It's a part of why trying to do this stuff in the government is often quite unrealistic.

MR. OSWALD: And then a -- somewhat of a follow up is this -- for instance maybe take 2002 budget, like in the National Geodetic Survey for instance, we went through this process of PPBES but potentially their budget could be twice -- almost

twice what the budget -- what the President recommended, you know, the administration recommended. So sort of how do -- I know there's -- I've heard different figures, $600 million NOAA over all this. How do you deal with that in this PPBES reprogramming of additional funds that are coming from the -- basically from Congress?

MR. DUNNIGAN: Well, if Congress gives us money that we didn't ask for then we're later in the budget process so that's when the line offices have to make decisions about how best to move forward. And we're limited by what Congress told us to use the money for and we're limited by what our program plan said we wanted to do in that year. So as soon as we get the money for fiscal '07 we at the line office now wearing that hat rather than a planning hat will have to go back and say what was in the '07 program plan because these were NOAA's priorities for this year and how might those have changed since we made those decisions. You know, we did that budget -- or that program plan long before hurricanes Katrina and Rita hit, long before the Calcasieu River oil spill, you know, all of these things. So, you know, we have to allow for some change. But that's really where that happens. When the line offices are given the money after the budget is done is when you have to sort of make those decisions about how you're going to deploy those resources.

MR. RAINEY: Jack, can I just ask a quick follow up on John's? Maybe this is a different way of asking the same thing.

But are the other -- is the sense in NOAA as they look across the other -- the goals, are there equally as compelling requirements? I mean if you look -- commerce and transportation, we're talking about the doubling and tripling of the need or the requirements and the stress on that particular goal system. Are there equally compelling -- as compelling increases in requirements as NOAA sees it across those other goals? In other words are -- is there an ability in the system not to just move up sort of incrementally from where everybody's kind of pegged now but to take a look at the changing needs or requirements across these goals that the nation's facing and, you know, consider that in the process as well? I mean because I think that we've got some pretty hard number requirements, you know, so we can make a pretty compelling story and I'm just wondering how that's sort of evaluated across the board of NOAA's programs.

MR. DUNNIGAN: I think -- I personally think that the arguments that are made across the board in NOAA are very compelling. And, you know, in this context I want to make sure that Marine Transportation and commerce and transportation is getting its due. But as a matter of fact from my days with the ecosystem goal team I can tell you that the nature of the problems that they're dealing with both on providing science and making and applying management policy to issues that people care about are critical. I mean what's the biggest thing that the

President of the United States has done for NOAA programs in the last 10 years? The Marine National Monument in the northwest Hawaiian Islands. And President Bush personally made those decisions within 24 hours before the announcement. I mean it was astounding to me to see that level of engagement from the President of the United States. Very compelling arguments there can be made. And if you think about, you know, weather preparedness, you know, what we're finding about storms is a big deal. I mean last week Vice Admiral Lautenbacher announced that they'd done a revision on the probability of hurricanes this year and, you know -- and we reduced the likelihood of having an abnormal year from 80 percent to 75 percent. We still have a 75 percent chance of having, you know, above normal storms this year. So, you know, that's a part of the NOAA portfolio. I mean over my career -- that's why I've loved working in this business and for this agency because what we do across the board is so critical really to what the people want. Now -- so I mean I'll fight hard for NOAA, I'll bet you there's somebody in agriculture that'll do the same thing and somebody in education and energy that can also do the same things. But, you know, we -- there are tough challenges, people are going to make some tough decisions and I got to make sure that our priorities are there.

MR. DASLER: Jack, how much -- under the Hydrographic Services Improvement Act of 2002, I mean they pretty much laid

out some guidelines for authorization of appropriations and it seems like that should be the bare minimum. I mean they set some pretty specific numbers for '07 and that that should at least be the minimum used for planning and budgeting. Can't that be used in the argument for appropriation of funds, that, you know, the Hydrographic Services Improvement Act has kind of set some guidelines for funding? They get pretty specific under, what is it, Section 306 for the authorization of appropriations. And I mean right now budgets are under what's under the Hydrographic Services Improvement Act.

MR. DUNNIGAN: First of all, I don't think that authorization levels contained in bills -- I got to be very careful how I say this. They're not the most significant part of determining where our budget ought to be. Sometimes an appropriations committee will come back to an authorizing committee, say the commerce approps committee will come back to the committee on commerce and say, well, we're not going to give you that money because you don't have an authorization for it or you're asking for a lot more than is in the authorization. But that's a part of the negotiating game that goes on back and forth. What's important about the HSIA is not so much what's in that last section about authorizations. As it is what's there in the purposes and policies and the missions that we are required to do. So that when Steve sits down and writes his 100 percent requirement for the programs that are a part of the goal

he'll go back to the sections of the law that say NOAA must do this, NOAA must do that and cost it out. And he'll end up doing that I think in a more realistic evaluation of what he thinks his needs are rather than starting with authorization levels that are in a bill. Actually the administration's view, and this has been consistent for republicans and democrats and conservatives and liberals, is that bills like the HSIA should not have specific authorization limits in them at all, they should just say -- you know, they should authorize such sums as may be necessary to be appropriated. The House and the Senate sometimes like to include big numbers in there to try to make it sound like they really want something big to happen. But in an operational sense I don't think they end up becoming that significant. I think that was a politically correct way to say that.

DR. LAPINE: This is Lou Lapine. Can you hear me? Doesn't sound like it. You know, Congress puts things in the NOAA budget because they think those things are important and it's their constituents who tell the Congressmen what's important. You're worried about how to grow the NOAA budget. Why don't you let Congress help you grow it and once those add ons slash earmarks are appropriated why don't they become part of your planning process the following year. Instead of say, well, thank you Congress and we'll do your little business for you but yet it doesn't show up in the following year NOAA slash

presidential budget. I mean the Vice Admiral is a very powerful man but his authority is set by commerce. Commerce has a fixed amount that they're allowed to ask for. Here Congress is trying to help NOAA build their budget. And being the benefactor of one very small part of that I can tell you it is doing a tremendous good in South Carolina. Now why PORTS constituents can't get money added to the Congressional budget is beyond me. It's so important but no Congressmen are willing to step to the plate and add money for their ports. And that's something I think we can work on. But if you want to grow your budget let Congress help you grow your budget. It doesn't seem like that ever happens.

MR. DUNNIGAN: One of the things that we do consistently, and the program managers and the goal team leads are being asked this all the time, is what can you do to incorporate earmarks within your current program. But they're not given the money to do it. So their choice is to drop something out of their program that they believe is essential in order to pick up earmarks because the ultimate budget is always much more than the President is willing to ask for. As I said, the President has told the federal agencies to plan for negative growth of two percent per year for the next 10 years because of all these other priorities that were in that early slide that we put up. So it becomes very difficult for a program manager or goal team lead to say, well, yeah, I want to pick up that height mod

earmark, I want to pick up that PORTS earmark, because to do that he's got to drop something and what position does he find himself in for dropping. The other part that makes that even more difficult is that the minute a goal team lead comes forward and says I want that height mod earmark, I'm willing to pick it up and I'm willing to lose piece Y. Well, what's likely to happen is piece Y will get taken away and he won't get the earmark. So it's a very touchy part of the game to play and that's why -- I mean there are a lot of -- I'm a big fan of CELP, Conservation Estuarine Land Program. It's a $60 million earmark in some years, I think last year it was $35 million, where we go out and we buy land, you know, build it and they will come. And I'd love to see more of that earmark get picked up within the NOAA budget but I'm not sure that I'd want to, you know, put up $60 million worth of cuts in order to do that. And it's a zero sum game and that's the problem, that's why that's so hard.

MR. DASLER: I would think that -- and I don't know if this is done, but are the earmarks, do they actually fund the programs? I mean I see that as another detriment to NOAA is you're starting to pick on so many -- pick up so many pet projects and earmarks and is the funding that you're getting to support these earmarks cutting into operational funds. I mean I -- it seems to me that that is tending to happen. And I don't know, like the vessel removal program, that seems like that

should be a Coast Guard function and is the funding that comes for that, does that pay for the level of effort that goes into that, is that looked at or are you cutting into operational funds?

CAPTAIN BARNUM: The vessel removal, that -- we're not doing the vessel removal, we're just working with them on mitigating the -- from Office of Response and Restoration, the fuel oils and the other chemicals that may be aboard that. So we're not doing the removal, we're just working with them to provide our expertise in that area. But as -- I don't know if you want to talk about earmarks. But the earmarks often, when we're assigned an earmark it gets weighed -- it gets rolled into the top line so it actually ends up being a cut to the agency. So we may have a $3.9 million top line we've asked for but if there's earmarks tossed in there then something's given up, zero sum gain as Jack talked about. And so that money has to be made up somewhere else to fund those, so. Yes.

UNIDENTIFIED MALE: That's why we have to grow the pie.

MR. GRAY: Bill Gray again. Jack about 10 or 15 minutes ago mentioned something that I think is very important to this overall issue. And that is in commerce and transportation or the Marine Transportation System we have no champions at all in Congress right now. Fifteen years ago John Brow (ph) and Billy Tausin and people like that from Louisiana knew something about it because they were involved with the industry and so forth and

people would come and speak to the Congress about them and speak to the public about it. In this whole business there are many, many things going on in the Marine Transportation System now that are just terrible, the criminality of sea fares, all this stuff, because the industry itself isn't known and doesn't come out and speak up where the public can see it and where the elected people can see it, the senators and the representatives. And the -- in my experience, I mean Coast Guard does a good job, NOAA does a good job, Army Engineers I guess, I don't know, I mean they're very hard to deal, we -- they're hard to locate actually, they get a hell of a lot of money but they don't cooperate with anybody. But the component -- and MARAD really doesn't do very much at all. The thing that is needed is for the Marine Transportation System to be recognized and known by the public in a positive way and known for what it does for the good of the citizens of this country and so forth. And that's really what's missing in the bigger sense. To make a quantum jump in the amount of money that is devoted to making the Marine Transportation System work more safely and more environmentally acceptively. And how we get there I don't know. I mean the -- I will tell you most ship owners will always duck if a microphone is thrown in front of them and they hope that they won't be the next one to the -- whatever it is, the Athos I or the Cougar Ace or something like that. And that's -- it's a problem. I mean NOAA is very, very competent in what they do

and they've done marvelous things to figure how to use technology better to -- but we haven't got any champions in the Congress.

MR. DUNNIGAN: And I think there's -- let me tell me you a really great story. One of the impressive things about Safe Seas last week was that the company that owned the barge that got hit that was leaking the oil was actually a real company, Harley Marine operating in cal -- along the whole California coast, headquartered in Alameda. And this company made I thought a fairly bold and brave commitment to put their name out there and actually play as a part of this exercise. And they did it because they're committed to doing their job the right way. And they brought tremendous expertise to the table so that we could learn how these things would play out. We didn't have to invent, you know, a responsible party for this story. Now, you know, that -- Harley ought to get recognized for that, in the industry, in the community at large, you know, ought to find a way to say, you know, that here you have a very clearly, you know, responsible company that wants to learn to do things the right way and collaborate with the incident command system in order to make this stuff work. And I'm picking on that because that story's fresh in my mind. I'm sure that there are stories from across the industry that we could do and we could maybe partner to try to get those out there and sort of elevate the profile. Because I think you make a good point. You know, a

lot of shippers are afraid that they're going to be the next Exxon Valdez and so they do run away from microphones. In this case you had a company that was willing to stand up and be a part of the system and play the game and understand and be very responsible and those are the kinds of stories that we have to learn about and figure out a way to tell.

CAPTAIN MCGOVERN: Two things. Andrew McGovern. Yeah, well, the main reason why most of the shippers want to stay away is because the only press you ever see about the Marine Transportation System is negative, you never see any positive for us. Number two, like Jack is saying, you know, we've got to grow the whole pie and I agree with that but the reason why I think the different constituent groups go in and just ask for their piece of the pie to grow is because, well, you love NOAA and the fact that it is so diverse, that's one of its problems is that the Marine Transportation community does not want to go in and ask for NOAA's -- you know, the big -- the pie to grow to find out that all the growth goes to ecosystems let's say. Or, you know, the -- I mean this is the big, you know, thing. They're so -- I hate to say the word conflicts, but there are different -- there are conflicts between those line offices I guess or between the constituents of those different line offices and where they -- you know, what people think are important and they don't want to go in there and lobby real hard to get NOAA's -- the big pie to grow to find out that their

piece stays the same size or gets smaller. So I guess that's one of the issues I think is -- that's why they go in and say this is my piece, this is what I'm fighting for and let the ecosystem people fight for their, you know.....

UNIDENTIFIED MALE: I understand.

CAPTAIN MCGOVERN: So this is -- that's one of the problems for doing that. I don't know if, you know, some of the other Departments are more, you know -- they're more -- I guess more focused so therefore people can go in and, you know, grow that but it's -- they know they're going to get a part of that where with NOAA you don't know that and that's the big fear. And that's -- you know, being from the Marine Transportation System side the industry feels that they have been historically shortchanged by NOAA, you know, in the budget part, that it's the scientists that get -- you know, NOAA is run by scientists and the science stuff -- you know, the neat stuff gets the money and the -- you know, the practical stuff doesn't necessarily get the money. That's the perception out there just to let you know, I mean that's -- you know. I mean, you know, when all the directors have doctor in front of them people are like, you know, that's where the money's going to go. You know, they're going to put a -- you know, and I mean a classic was our tide gauge broke at Bergen Point in New York and we were told there's no money to fix it. This was years ago, probably 10 years ago. But there was no money to fix that tide gauge in the NOAA

budget. Okay. Maybe next year. But then I'm talking to the head of that maintenance program, this guy Brad Wynn, and he had just had his fourth trip to Antarctica to install a tide gauge. And I'm like, well, okay, we can't put a tide gauge in New York but we can put one in Antarctica. Where's the -- you know. And there is -- I'm sure way back there is -- you know, there's a reason for that but, you know, the one in New York was fairly important too, so -- but there was no money for that. So that's where -- you know, that's where the -- I guess the Marine Transportation people feel and that's why maybe they're afraid to go and say let's grow NOAA's big pie because they don't feel like they're going to get any of it.

MR. RAINEY: All right. Well, thanks for the discussion. I think what I'd like to do -- Admiral, I don't know if you can -- what your time availability is but I would suggest maybe we take a break and then we resume here in just a few minutes on the -- some initial discussions about the special report and how we can -- you know, the progress we've taken so far and how we can keep working on that to kind of focus our message, picking up some of our recommendations since we've been in place and getting it pulled together and something that we can all get behind and kind of try to make our voice heard on some of these issues and, just as we've been discussing this morning, you know, there's certainly some challenges for these programs ahead and I think that this will be an effective way for us to kind of

get our views, you know, introduced into the dialogue. So why don't we go ahead and take a -- we're running a little bit out of time, can we try -- shoot for the, you know, five minutes or 10 on the outside and then we'll go ahead and bring Ann in and talk about that? Okay, thanks.

(Off record at 10:24 a.m.)

(On record at 10:45 a.m.)

MR. RAINEY: Let me introduce -- Ann is working to help support us on this idea of the special report and it's been some work getting a draft here and it -- just -- let me just turn it over here to Ann without tying it up too much and we can kind of go through sort of the parameters, what we're working with and just kind of introduce it to you and start the process. So, Ann, if you could.

MS. BOESE: Sure. Hello. My name is Ann Boese and my company, Laughing Gull, provides editorial and publishing support to the Special Projects Office at NOS through RSIS, it's -- I'm a contract worker. I have been working with Scott and Barbara and some others at NOAA on this publication which will also include a complimenting brochure when we're finished called Critical Connections. And the group asked me to attend the meeting. Our hope is that we can get some feedback, some comment and actually if the time permits us to do so I'd like to come back with some concrete information by chapter as to what the panel thinks needs to be included, perhaps what the panel

thinks to be deleted. Since there wasn't really a specific time segment set aside for this I put together -- and you should each have three sheets before you, I put together basically a punch list of things that we would ideally like to get through. And it does look like a lot but we'll do the best that we can. I -- just to briefly go over that format. This morning I'd like to just go through some -- a brief discussion, general comments, consensus hopefully that everybody thinks this is the right direction, the right way to go, and I'd like to talk a little bit about some of the reasons that we laid it out in the way that we did. And then hopefully we can go through chapter by chapter and some chapters are obviously I think going to be of more interest or require more discussion than others. And then I am going to use a sheet -- I gave you one so you can see how I'm organizing my thinking. It says punch list form chapters so that I come away with hopefully this is what the panel does want to do in this chapter, this is what the panel doesn't necessarily want to do, these are the HSRP recommendations that we will include, and then any other suggestions. And we have Art that we are working with but we're not actually at that stage. This is a work in progress. The other sheet is the punch list form for vision which is, as you can see, two pages that needs to be panel generated so we may move that up in the schedule.

So I guess I could just start by talking a little bit

about the document that you have, the draft, Critical Connections, Recommendations for NOAA's Contributions to the U.S. Marine Transportation System. Basically the 24 page document is -- has been organized in a way that will be useful to the readers. The reader that we're keeping in mind as we're doing this is a person perhaps on the Hill who needs to know about what NOAA does, what the Marine Transportation System is and HSRP's recommendation as to how the Marine Transportation System and NOAA are going to move ahead in the next century. So without -- with the limited amount of space, which in a way is a good thing, what we're trying to do is to produce a document that can be easily navigated by a person who doesn't necessarily know a lot about the Marine Transportation System or what hydrographic services are. We want something that is accurate and detailed but we want something that, for instance if we move ahead to the chapters we have -- and these chapters all really actually need to be re-titled, it is -- we are rough. But each chapter talks about an area of NOAA responsibility, pulls out information pertaining to NOAA's role that matches up with the types of things that HSRP has made recommendations on and so a person who's reading it can say, oh, this is -- let's say for instance emergency response, opening paragraph, oh, I realize that NOAA responded to say something that they know, a newsworthy item, Hurricane Katrina, something that puts it into kind of a practical application realm where NOAA emergency

response actually means something to them in terms of something that they might be familiar with or definitely would be familiar with. And then they can go over to -- the way it's set up graphically, to what the HSRP recommends. Hopefully when they get those three pieces of information they'll want to go back and read through the entire piece. Which is relatively short and we are going to work on the copy until it reads well, hopefully reads easily and we are going -- this is not a color copy but we have highlighted things that need to be highlighted in a different color which happens to be brown. I know that the panel had wanted something that was easy to navigate, I know that the panel had wanted something that had a lot of artwork. We're at the stage now where we're filling out all the foundation pieces in terms of copy and content and then we'll trim it back and add as much artwork as we can, still keeping the message intact for each section.

So basically that's it in a nutshell. And I think at this point, Scott, did you want to just take general comments and questions?

MR. RAINEY: I guess -- thanks, Ann. That's a great kind of overview and just -- not at all to back it up from there, but I -- this is an attempt I think to sort of capture, you know, our best work. And the things that we were talking about this morning, to me I think this is a vehicle where we can, you know, put our views out there in a coherent way that, you know, our

task is to advise NOAA Administrator. Hopefully it'll resonate with all the things that we know that they're trying to do and support these programs and present the information in a way that NOAA can have this document and use it as they see fit in the broader context of putting their agenda before the Committee on Marine Transportation System, for example, we talked about and all of these different entities that are involved at the high levels of deciding and prioritizing. So in my mind the idea is to, you know, kind of take the HSRP's best hits and, you know, put our best foot forward in a succinct and coherent way. And I very much appreciate NOAA leadership's support of this to help us, you know, be able to pull this together.

So that's sort of the genesis and the idea behind doing this and I think the timing is appropriate with the authorization, with the HSIA being reauthorized here shortly and a NOAA organic act on the horizon and all of these things that are moving out. I think it would be great for us to try to focus on this document and have something -- put a -- kind of put a marker in the water as all this ramps up. So I received a few initial e-mails back from the panel in response and it sounds like at least from the initial feedback everybody is -- or a lot of people think that, you know, we may be on to something here we're doing. And I think this will help focus our efforts a little bit. We've always had a little bit of problem where we have a great dialogue and some good exchange

and then as we leave the meeting it's like, okay, next step or now what. But if we can use this as a vehicle to kind of, you know, focus our work and put it into this I think we can pull from recommendations we've already made. And then there's -- you know, there's some presentations in this meeting and certainly opportunity for public input and things. We may have things yet that we need to fill in or areas that, you know, we come up with some new recommendations as well.

So what you have in front of you I think is an excellent start and I truly believe in this project. And I -- you know, like I said, I've been involved, it's kind of come together here with the timing from getting things going from our last meeting and also it -- sort of adjusting time delivery if you will of the draft. But I've tried to put in and working with Ann and also, you know, Barbara and Ashley Chappell and NOAA staff and others to try to get in at least some placeholders here so you can kind of start to see the scope and the idea behind the document with floating in some of our recommendations. But I think initially the best way to attack this is just try to -- let's kind of look at the overall document and kind of look at the big picture, if -- you know, if we think this is a good way to go forward and maybe try to identify some major themes that we want to hit in these different breakdowns and try to capture sort of the framework if you will and then we can keep going and refining that as we go. But -- Bill.

MR. GRAY: Thanks, Scott. I was very positively impressed with this and I think it's a very good start at what could be a very, very useful document. But I have one sort of overriding criticism and that is it's totally too rosy. It describes a very smoothly functioning, very desirable, everything is working well system. And I'm just curious whether as the document progresses we can weave in some of the here are the terrible things that are not being done that could be done that would improve the Marine Transportation System, commerce and transportation. And for example, things like we put in the Port Terminal Safety Study 11 years ago, our government has created a number of trust funds. There's a highway trust fund, there's an aviation trust fund, there's a harbor maintenance trust fund, there's oil spill liability trust fund. And I know trust funds aren't barrels of money and so forth like that, but the fact of the matter is if you're flying planes or you're running trucks or something else like that all the money that's collected from us taxpayers, most of it goes back to that mode of transportation. In our system, Marine Transportation, the harbor maintenance trust fund, oil spill liability trust fund, a very small amount ever flows back to improve marine safety. And that's way above -- all facets of Marine Transportation are adversely affected by that. I've also put down, and I sent to you, Scott, I think Helen Brohl now for her new role with the MTS asked for what do we think, me and INTERTANKO and some other

people like that, what are the three or four biggest problems that we want solved with it. I think some of those types of things should be considered to be put into this same document. Three months ago when Jack was good enough to sit and listen to us and when he first met us in Dick West's office I made a one pager which was saying here are some things that I think are problems that are not NOAA's -- basically not of NOAA's making but they are disgraceful in the overall sense of here are these problems hanging out there and we haven't got anybody's attention yet. Now we spent the last half hour or so of the earlier part of the session this morning talking about these things, we don't have champions in the Congress, other things like that. But I think in this document somehow I would like to see the flavor of these other things get in there so it really says why is it important that people who might be able to do something for the Marine Transportation System to take note of these things and weave them into an overall set of priorities or something like that. And so that's my basic phil -- other than that, I mean lots of specific little things and we'll all go through those I'm sure and so forth and I'll try and fill out the forms that you want, Ann, and so forth like that. But that's sort of my overriding comment, that let's get this in perspective. We -- man, this place -- this whole activity has been shortchanged to a fair thee well and we want to correct that.

MR. RAINEY: Bill, I hope -- I agree with what you're saying and part of this exercise will be with the space that we're going to have to really take a couple cuts through and tighten it up. But one of the vehicles that I'm hoping the panel will agree and support has been this idea or notion of a HSRP most wanted improvements list and I'm hoping and my view of this is that that will sort of be our opportunity I think to really -- I'm hoping that this document will distinguish itself in that we can get it to the next stage where instead of citing the obvious or just sort of parroting back, you know, all of these studies and we've all participated in all this stuff. That we can really cut to the chase on some of these things, talk about NOAA's accomplishments but also acknowledge that there's tremendous unmet needs and requirements and then cap it with this most wanted list because to me that's the thing that can be that punch list or that action item and I'm hoping, you know, the panel will, you know, resonate with that vision. Captain.

CAPTAIN MYRTIDIS: (Indiscernible - away from microphone).

THE REPORTER: Microphone please.

CAPTAIN MYRTIDIS: Better?

THE REPORTER: Yes.

CAPTAIN MYRTIDIS: Just want to remark what I would like to see us doing is set a deadline for the delivery -- I mean completion and delivery of this report. If we are not careful

we can go with this forever and ever and ever and we know new things are going to come about throughout our meetings then we make another report. I really would like us to agree on a deadline and we say, I don't know, in a month or two or three or six, whatever is that this is going to be done and we deliver.

MR. RAINEY: Yes, thanks for that and let me just jump right to that. We've absolutely thought about and discussed about it. I met with Mr. Dunnigan recently and we also checked on what we talked about as the very likely situation where we'll have a continuing resolution and -- just to make sure our contract and carry through and we checked into that. And so -- and I've had some discussions and -- with NOAA about, you know, the production, you know, timeline and schedule. So we'll definitely leave here with that, you know, kind of hammered out. And what I'm hoping is -- we're kind of all seeing this, it's all late breaking news, but to go through it, kind of agree on the main sections and then I -- to my mind, and there's certain individuals with some particular expertise or emphasis and experience in some of these areas that I'm hoping and thinking that certain panel members may have, you know, interest and ability to really focus in on maybe some of the details and just confirm with us. And I'll just throw one out there and I haven't talked -- had a chance to really talk to anybody about it. But in our last meeting Jack talked about his initiative and vision within NOS about resilient communities and going to

the notion that you want to frame things in language of things that are -- and go forward. I know Tom's had a great deal of experience in, you know, coastal zone management and their different resilient communities so for us to kind of all get together about, okay, how do these programs, hydrographic services, bridge over into this new initiative on resilient communities and, you know, drawing on some of our expertise in making some of these bridges and making them relevant and timely and pertinent to what -- you know, some of the things that are moving, so just as one example. And in the education and outreach, Admiral West worked obviously at Corps and the Friends of NOAA and all that. I mean we've got some special expertise across all these different channels and I'm hoping everybody will, you know, in the first instance think that this is a good idea and then look for ways where they can, you know, really tighten us up with, you know, the advantage of that expertise and involvement, what you're doing. So -- but we definitely are going to try to, you know, outline a specific production schedule and then we -- and I've talked about some ideas about, you know, how many iterations we can handle here. We want to try to pull this together and then the -- some initial talk about trying to have then a -- ever a smaller group for kind of a final editorial review and I have a couple folks of mine I'd like to help with that, so. Anyway, there's -- those are definitely, we've got to get the mechanics of this because it

can certainly draw out or get out of hand. But I think initially we're looking at trying to have something that's -- that we've got out produced on the street before -- I think we were saying it would be good if we could do it before the convening of the next Congress because that's -- you know, we advise the NOAA Administrator but it'd sure be nice if he had this from us and could then use as he saw fit, you know, when the next Congress convenes and all of these things I just spoke about happen. So I think that's a very rough gauge of what we're looking for and we've got to back it out with, you know, Ann's contract particulars, GPO and just kind of walk it backwards from when we want to have it on the street.

ADMIRAL WEST: Scott, can I ask a question?

MR. RAINEY: Yes.

ADMIRAL WEST: Is this document meant to live on or is this a one time report or is this something we update periodically or what's your intention?

MR. RAINEY: Admiral, my hope would be is that it would have some shelf life, that I think some of the issues that we would focus on have been kicked around for awhile and I think we've made some -- we've had some good deliberations in -- you know, in our New Hampshire meeting and others where we've talked about some things that have been in the public arena. But -- so I would hope that it would not be a -- I would hope it would have some shelf life and be able to carry forward but with the

expectation that, especially I guess with regard to if we move forward on the most wanted list that that would certainly be something I would think that the -- there would be a periodic review and update of, you know, depending on evolving national needs and the available resources and things that were brought to bear. So I guess the idea is to put something out that's more than just, you know, the results of one particular meeting or something where I've gone up in the past and briefed the Vice Admiral about kind of our current round of recommendations, try to pull it together in a strategic way that this would have some ongoing, you know, usefulness to guide some things but that it would hopefully be reviewed periodically. I don't see this -- if you're asking, I think we've come off the idea that this would not be -- this is bigger than sort of an -- something we'd expect to have an annual report, this would be used over -- we're calling it a special report and that's what we're proposing now. But it would hopefully have some shelf life and then something that could be periodically reviewed.

ADMIRAL WEST: Well, let me go on with a concern that -- about that it's too good. We asked in Houston where the post-action report was on Katrina. FEMA thought that there were some good stories that the NOAA hydro services provided. I don't know whatever happened to that report but I think you'll find that in the '07 budget a lot of those things that did a good job down in the Gulf Coast are being cut.

MR. RAINEY: Okay, Admiral. And so the -- I'm not sure I'm following what you're suggesting or what -- just to put that in the -- as one of the pieces of information in this is.....

ADMIRAL WEST: We got a problem, this thing keeps cutting out. I'm getting about every third word or so here, so. No, I'm not saying that this report should do it but if we want to report some influence on the budget cycle, which I think we do, if it's not this document, of course the timing's not exactly right. But we asked for the post Katrina report last -- in Houston and I think some of us thought they did a good job but you look at the '07 budget and a lot of that was cut. So you got to make some comments on that somehow I think.

MR. RAINEY: Okay. I think that's a good point. I mean I don't have too many specific details other than what you stated, other than to just restate it back. I mean we didn't -- there was an offline conversation after that that I talked to a person that was involved I think as a co-chair in working on the report but I didn't -- you know, I know that -- I think it's -- I don't even know actually if it's been completed yet. But I'm hoping this document I guess would be more in line with a -- sort of a strategic prioritization. So to the extent it would discuss that, Admiral, you're right, I -- in my vision anyway this would be a -- more of a policy statement, an endorsement from us to say, look, these -- this response capability, and just in my words, you know, it's a unique capability within the federal

government. As I pointed out in Houston, it's not recognized in the national response plans, only the -- some of the NOAA scientific and weather support stuff is, none of the hydro services are even recognized as an essential support function in the national response plans. They do it every time there's an incident and, you know, these -- so my view of that section would be more on the -- you know, the criticality of it, the uniqueness of it, the need to have a greater capacity. We used half of the nation's capacity for these -- for that function down there, and that we got to try to do some cost accounting and recovery so that we don't pull away from the day to day mission. I think maybe to try to comment specifically we could do a -- use a different tool or vehicle to make some comments specifically about what we learned in the -- you know, the post Katrina debrief and then maybe make some specific suggestions, we could pass those along separately. But I -- my.....

ADMIRAL WEST: (Indiscernible). Like last year, if nobody feels the pain of the NOAA cut they'll keep being cut. So I think it's our responsibility if we recognize something that's important to the nation. And particularly however it responds to Katrina, that it's being cut year, we (indiscernible).

MR. RAINEY: Okay.

MR. DASLER: Scott, maybe something like that could be addressed in another section that's added about concerns and recommendations or something towards the end. Just, you know,

like what we see happening in the figure and what's happening now and concerns and maybe just adding a section like that that.....

MR. RAINEY: Sure.

MR. DASLER: .....could address those kinds of issues.

MR. RAINEY: Yeah. Okay. Yeah, Elaine.

MS. DICKINSON: Elaine Dickinson. I think this is a great first start and I'd be happy to work with you all on tweaking it to get it to where we want. I -- my only problem is that recreational boating is practically invisible in all of this copy. Every fact and figure that is given is about cargo and shipping and tonnage and all that great stuff and 78 million Americans who go boating apparently don't have much visibility. So I have all kinds of statistics or things that we could use if we could incorporate them in here. And even -- I've got tons of boating pictures too. So when we get to that point -- I mean I would really like to get more of a presence in there. I only saw one mention of recreational boating, so.

MR. DASLER: Yeah, Jon Dasler. Again, if I -- I'd second that, I think it's an excellent first cut, it really makes me feel like we're accomplishing something and getting it down and putting it on paper. I think the general outline is good, I think it needs -- there's some word smithing, I took my copy and have a lot of comments and things and I think some of the preamble is a little bit off the mark. And I don't know how

much in this we want to go through but we could go through some of those comments and things. I think I -- all due respect to Admiral West, but I think I'd get rid of the Navy patrol boat on the front page and -- and possibly add the graphic that's on the back panel over there, the ship coming down the channel. And to meet Bill Gray's concerns is maybe move that wreck into the channel. But, anyway, there's a number of things that -- again, that I've highlighted and I don't know if -- at this -- now we want to go through some of those, but -- or we can just provide feedback and go through it. But I think it's an excellent first cut.

MS. BOESE: Can I add something? Am I -- can you hear me? Just so everyone knows, this is the time to add blocks like recreational boating. So just so that you have an idea of how this document has come together, I was given a manuscript and the list of HSRP recommendations and I have in a short period tried to match up the recommendations with some portion of the manuscript in a way that makes sense in terms of what NOAA does and the Marine Transportation System. So this -- what we're looking for I think today and tomorrow are if something is not in there that should be let's just say it could go -- you know, recreational boating and then it can go in. Because this has really been a -- taking a block from here, a block from there, we're not even near the overall polishing point. Although it would be -- you know, any -- as we go through chapters, you

know, a word here, a word there is probably going to change from this point on but an idea or obviously missing information. And I can see, and this is of course up to the panel, but the idea of -- that Admiral West was discussing could be incorporated into the chapter on emergency response. By the same token Mr. Gray's comments, of course, you know, it's -- for me it's kind of difficult to work backward from a recommendation to a copy and matching it up and if the reasons for these recommendations are not in this copy we just need to -- you just need to bring it up and put it in. Because it's coming together kind of in a slow way and now we're at the point of interface where, yes, that is a good idea, that is what the base copy should reflect, the reasons for the HSRP recommendations. So that's great information and the more specific that we can make that in terms of this foundation block's not here, this isn't here would be really great.

CAPTAIN MYRTIDIS: And if you're looking for artwork I have some beautiful pictures of beautiful white cruise liners. But they carry millions of passengers in the U.S. coastal waters. I'm going to be more than happy to share with you.

MS. BOESE: Well, I think anybody who -- that sounds wonderful, maybe I need to take the shots myself. I think that any artwork could be sent to -- to be e-mailed or sent to Scott and or Barbara and then they will send it to me and we'll -- when we get to that stage put it -- start, you know, placing

them in the right spots. But definitely send artwork.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

MS. BOESE: Huh?

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

MS. BOESE: Okay.

MR. RAINEY: Has -- I mean on that note has -- have you had some time or could we talk about, you know, looking at the sections as they're proposed now? And again, not word smithing the little subtitles or whatever but the idea of the -- sort of the major breakouts is -- as we've got it. The idea of the connections, I think the major theme as I see it is is that the programs that we're fighting for here or advising NOAA on, in my mind they support Marine Transportation clearly and everybody gets that, commerce and transportation, all that. And so, you know, we talk about that and lead with that but there are also critical connections to an awful lot of everything else that NOAA is doing and bigger than NOAA even. You know, the entire nation, I make the arrogant comment in there, I've taken a shot at trying to put some things in there. But in my mind, you know, arguably the MTS system is maybe perhaps, you know, if not the but one of the biggest or most critical pieces of national infrastructure we have I mean when you look at everything that is, you know, impacted by it. And so to try to make -- the

overriding theme I think is is that this -- these programs aren't just, you know, the right side of the decimal on NOAA's budget and that's all we should care about them. I mean these things, they truly do crosscut a tremendous amount of national priorities and we can't forget that and we need to try to get -- that's at least one of the main things I'm trying to make here is that these programs support, you know, not just, you know, commerce and transportation, as if that wasn't enough. But, you know, it truly, these are framework data for a tremendous amount of things we're trying to do. And so that's kind of one of the themes in there. And so as we, you know, look at the layout of the chapters and, you know, talking about, you know, opening it up sort of with the role of the navigation services and talking about that, sort of the way it's -- you know, the importance of it quickly but not to spend too much time on that and then, you know, how these programs interact. One of the -- you know, one of the -- just to cite back to a couple of the few reports that are out there and what's giving -- you know, what's in motion now that the -- the MTS is coming out, that report back in 1999 and now the new CMTS coming up so tying into some of that work. You know, just to cite in that report that, you know, the number one need identified by the stakeholders there was, you know, the accurate and timely arrival of hydrographic information, that's right out of page 84 of that report back in '99. The HSRP bottom line that these are -- these services are recognized as a

priority and among the best public investment, so those kind of themes. Then the next chapter goes and talks specifically kind of about some of these programs that support -- that we're talking about, a little bit of description about what they do and the services that they provide. And then, again, as Ann said, to try to explain here's the little background but here are the action items or the recommendations from the HSRP separated out and highlighted down there. And again, we can go back and take a look and see if we picked up our most important ones and the cardinal ordering of them, et cetera.

I thought that it would be a good idea to talk particularly about emergency response because that's an area where these programs I think are critically important. Just what Admiral West said, and I -- you know, I misunderstood what he was asking me there. I'm not in disagreement, I think that we should have a comment that says look how incredibly important this is and, you know, then turns around in the next cycle and this stuff's not recognized, it's cut. But to talk about -- you know, what we heard in Houston and what we know is that, you know, if you don't get these things back up and running in 48 hours you have major consequences and that these -- all of these programs play a unique and critical role in emergency response and they need to be recognized. And, again, the idea on the -- again, sort of just keep broadening it out as we go. Talking about, you know, how these crosscut into resilient communities

and -- so that's sort of the flow and then the importance of education and outreach. And the thought I have there was sort of expressed here earlier this morning again and that is that, you know, we need to -- in my mind need to broaden that out to not just the people who are directly involved in the Marine Transportation System, kind of preaching to the choir, but take it out again to what I would call the MTS beneficiaries, you know, the public, but also your shippers and your manufacturers and folks that, you know, depend on the MTS every single day but aren't really directly involved in the operation of it and trying to expand the education and outreach and build the bigger Friends of NOAA kind of community. And that would even include I would think trying to find ways to look at -- you know, again building on what they're already doing with the other federal partners, NOAA, Navy and, you know, all of the other folks that, again, are still using the same products and services. So -- and talk about, you know, research and development and expediting moving from -- you know, from the research into applied technologies and implementing that. And then a last -- kind of a next steps or a vision chapter to kind of cap it off and saying that, you know, looking at the challenges that we have and areas to -- of, you know, particular concern to the panel and focusing back and then hoping that all of that would tie back into and feed back into the HSRP most wanted list.

So that was kind of my thinking on how it would hold

together and what I'd maybe wonder now is if people see a chapter that isn't there that should be or one -- you know, vice versa. If the main kind of the blueprint for the document, if it makes sense to everybody and -- you know, in the major pieces, if we've got the framing set up, if it makes sense, maybe was a first step. Dave.

MR. ZILKOSKI: Yeah, Dave Zilkoski. I guess I got a question about the report itself. Are you -- the group planning to do more reports? Because, as you may know, and you'll hear more about, geodesy is more than just part of MTS. There's a lot different aspects of it that aren't covered in here. I think this report is good for what it's trying to focus on although I think that the supporting resilient coastal communities needs some work which was indicated that there was a lot of blanks there so we can talk about them. I think Tom would have some great insights into that as well as -- that fits into some of geodesy with their height modernization program. But there's a mot more to geodesy than just the Marine Transportation System. So is the -- and it is part of the Hydrographic Service Review Panel's responsibility. So are you planning on doing something where you might say critical connections, recommendations for NOAA's contribution to geodesy?

MR. RAINEY: No. But I didn't come up with the -- one of the things I would like to do, and I talked to Ann about it, and again this is just the nature of the draft. I'd like us to not

-- my suggestion down the road whenever it's appropriate to the panel would be that we don't say that this is just only about the MTS. The point I'm -- the whole point I'm trying to make with this is that we're all about hydrographic services and everybody gets it that it supports the MTS. And certainly that's a place where we want to have traction and it's the most clear application of things. But I am hoping that without diluting the impact of what we have to say about how it helps MTS that we have and we set this out as a bigger tent kind of idea and that we're structuring it so, you know, you state the obvious, yes, we need navigation support, we got to get -- you know, ships can't keep running into stuff in the channels. But my view and my hope on this is that it's broad enough and we're pulling in, and that's why I was -- I'm really -- I know you're going to talk to us about some geodesy things. I'd like us to do in this -- not that there won't be further reports or this wouldn't be further refined and, you know, the emphasis change over time. But I'm hoping this will be big enough to cover our entire footprint and not just -- you know, just all of a sudden, you know, just have a narrow bandwidth on strictly MTS. And that's part of what I'm asking right now from the panel is do you agree with that scope. I'm not trying to dilute the MTS thing but I'd like to see it talk about -- because to me I think what we've heard over the years is how interdependent these things are. And as much as -- hard as we're pushing on, you

know, reducing the critical survey backlog if you don't have money in the mapping and charting division to do something with that data it's just -- you know, we're just out there -- you know, we -- you know, you've got to balance the delivery and the production of these services across the line. So I'm hoping that you'll be in agreement and we can do it in a way that doesn't, you know, dilute what we have to say that hits on the priorities for NGS, for CO-OPS, for Coast Survey, and ties it together to try to -- the message I'd like to show people is critical connections, all this stuff is connected across the thing so we don't have to get in the zero sum game or maybe we -- this is our argument to the zero sum game when they sit down and say, well, you know, we got a 46 percent cut here, you know, but we can't cut these hydro services because they are important completely across the board and we need this bathometry or we need this height mod or Vdatum in ecosystem management, not just, you know, commerce and transportation. So that's, again, just my thinking. But that's where we got to kind.....

MS. BOESE: You know, that.....

MR. RAINEY: .....scope it right.

MS. BOESE: .....if I can ask you, that's actually -- in terms of all the things that I've heard that to me would -- if that is the direction that the panel would like to go that is a -- that's a different -- it's a different focus but it's one that could be done. Critical connections and the importance of

hydrographic services and information in -- more than just the MTS and we could restructure the chapters to reflect that. Because right now we have an MTS lens.

MR. RAINEY: It certainly leads that way and to me it makes sense to lead it that way and what I was hoping is that we could -- and frankly just in the -- I think it's fair to say the front end of this got more editing, there were more drafts on the front couple chapters. And so as you go through here, you know, we haven't had as much discussion or thought process going into that. But, you know, we have a limited space and that's sort of -- these are kind of the threshold things to get this thing to where the panel thinks we can make the most impact with it. But I don't see it as the only report ever but it's not something that we'll probably be able to do, you know, on an annual basis. And my thought process was that we could try to, you know, hit all the high points across the board, but.

CAPTAIN ARMSTRONG: Andy Armstrong. It seems like the questions to ask is who is the audience for this and then the audience would determine whether it's going to be an MTS document or a critical connections contributions to, you know, the American way of life or something like that. You know, if we want the audience to be the cabinet level MTS group then we should focus on MTS group. If we want to put this out in the discovery centers around the country and generate sort of grass root support then it ought to have a different title because --

you know, if this comes to my house and -- you know, and I see the Marine Transportation System I'm going to yawn and toss it in the recycling. On the other hand if I'm on the Marine Transportation System cabinet board then I'm going to pay attention to it and sort of it's a -- I think it's a fundamental issue of who is the audience for this report and is one report going to be our major push or are we going to publish a series, MTS safe environment, you know, storm response and so on.

MR. RAINEY: Well -- okay, I mean that's exactly right that -- and maybe that's a proper question. I don't know -- we have support to do a report and the -- sort of the flippant answer, I mean obviously we -- the audience for us technically is obviously we're working to advise the NOAA Administrator. I think quickly though we realize our obvious hope is is that we have something of value to say that he can then use, NOAA will be interested in using to support, you know, their program at these different agendas. The CMTS is standing up, the HSIA is up for reauthorization, you know, so there are several -- you know, a number of things that I think this could be timely and used for, you know, by NOAA. What -- I mean there's a question or a suggestion in that question and let me just put it out to the panel. I mean I kind of -- I think I've sort of thrown out there my vision for this but I -- again, we don't know whether NOAA could support us doing a multiple series and all that but does the panel -- is it your sense that we would be more

effective to focus this, you know, primarily if not exclusively on the MTS with the hope that we could then do subsequent -- you know, have as you say a series, you know, on some of the other issues, do you think that would fire for effect better than to try to cover it in one document. Andrew.

CAPTAIN MCGOVERN: Well, I-- I'm in agreement with Andy, I think you have to -- you either have to decide to do one general document or a series of documents, you just can't have this -- you can't do the MTS and then walk away I don't think if you're just going to focus on the MTS. I guess my question would be to Jack is as far as for NOAA figuring that this is going to be a -- some -- you know, is going to be a handout material eventually where do you see the best bang for buck here, is it better to do a general report on hydrographic services across the board, you know, how they affect, you know, yeah, the general American way of life or is it better to focus individually and pick those people -- you know, maybe that's why it goes to different subcom -- you know, goes to the MTS and then it goes to here and -- I don't know. I mean I guess you're more the expert on this than anyone else here I would think and maybe Admiral West would be another one that would probably be the most attune to that.

ADMIRAL WEST: Well, it's hard to get a report like this out anyway, as you're already finding out. What I would suggest is you could put everything you need in one report and we can

pull the excerpts out we need and use them anywhere anytime for whatever cause and that's probably the best thing. As reported in the HSRP, da, da, da, da, da, the following, et cetera. Because if you try to get a whole bunch of reports out I think we'll be probably unsuccessful.

MR. DUNNIGAN: Yeah, I would agree. And what I thought was good about this report was that, you know, it was focused on trying to make in a very user friendly way the work that you've been doing for the last couple of years more out there. You're going to continue to do work and as you do and as you look at things and as you come up with more recommendations another report will be a useful thing to have as well. But I think Admiral West is right in terms of, you know, having a product that can serve a number of purposes and you can pull out pieces that you need to pull out but it's something that consolidates a lot of stuff together in a way that's very attractive and very engaging.

MR. RAINEY: This is Scott again. The one thing I'm hoping, and maybe it's obvious now, but I'm hoping that, you know, as much as we try to cover that we delve down into specifics and that we don't want to recite the seven societal goals that IOOS is going to solve and then stop there. I don't want this to kind of be brochure wear, I want this to be here's -- just what -- going back to what Bill Gray said, that's exactly what I want. I want this to say, man, this stuff is

important and we've got some serious unmet need here and here's our thoughts on it, here's our recommendations. These are things that the Admiral can look at and say, okay. You know, I mean I want to put it -- I want us to take it to the level that however broad a brush we try to go with this thing and that's where, you know, I fully understand and want to admit up front, you know, the resilient community thing isn't there yet, I mean we just didn't get to it in the draft. But in each section that we talked about I'd like us to have specific recommendations that can be acted upon or at least, you know, used as a measuring stick or a goal that can maybe inform these 100 percent requirements we're hearing about in the PPBES or something. I mean I don't want it to just simply say, you know, we need to put more attention on this and we need to do all things and all that. I mean to try to really distill it down into -- I mean I'd rather say nothing than just to go blah, blah, blah, you know. I really want this to be something that when we take it up -- you know, up the chain it has some ideas that can be acted upon.

CAPTAIN MYRTIDIS: Scott, I -- I'm sorry. You sure? Okay. I personally like the idea of one report and I like your initial thinking of having the critical connections, how they reflect on the Marine Transportation System. I think in my opinion this is how it should be presented, so.

MR. DASLER: I think -- this is Jon Dasler. To second I

guess on what Myrtidis is saying. I think a lot of the other things like the emergency response and some of the other things, I think that's been part of our frustration, a lot of those already get a lot of political exposure. I think some of the things the panel, in my view and I guess other panel members speak up on this also, is the frustration that the basic Marine Transportation System and NOAA's key role in that and sort of their tenant of operations is usually overlooked and here's an opportunity to really kind of highlight that and put the stress on that. And I think it's a good idea to incorporate everything but I think now is the opportunity to really express our frustrations how that seems to be overlooked a lot. And we can build more into this and kind of highlight, you know, some of the concerns that Bill has expressed and we've talked about through a number of our sessions, just trying to get that in focus. And, like I said, I think a lot of the other ones, they already get a lot of political support and even though we -- mentioning some of those things in here but the stress on the MTS would be important.

MS. BOESE: I think what I'm hearing is that the panel wants the document to make the case for moving ahead with the recommendations and whatever is involved in doing that. And I think the one thing that is lacking from my perspective is the kind of sort of hard specific examples that are going to make this of interest to someone. At this point, and this is just

the nature working with big chunks of copy and editorial, but if you were -- if we were sitting down in a room and talking about, okay, why is this particular thing inter -- of important we would probably have some examples of things that had happened, like Mr. Gray was saying, and those are the things that I think would be really good to get here today and tomorrow so that then we can put them in and a person can come away from this and say, wow, this is how this actually plays out in the real world because that's really where it matters. And if we can maybe start pulling in that direction and get some examples and we don't have to have all the details now but just some ideas. And Elaine, are you thinking that's a good way to go? Yeah, get the examples, get the hard thing so that somebody actually does know in the end, wow, this is an example of how this works, wow, they want to recommend this for NOAA, I think we should take a look at it.

MS. DICKINSON: Usually if you want to grab somebody's attention you have to give them something dramatic and, you know, I think between all of us and all of our varied experiences we could come up with -- even if it's just bullet items like what if, if there wasn't a good chart of, you know New York harbor or if, you know, a boat didn't clear a bridge by, you know, six inches, what if. I mean there are a lot of disasters out there, I hate to say it, but, you know, they're kind of waiting to happen and I don't think that's the kind of

thing that anybody thinks about or realizes except people like us.

MS. BOESE: Well, and from -- you know, I'm coming from a lay perspective and that's when I -- originally I really wanted these first italicized paragraphs to be something that somebody would recognize. You know, the Katrina was an example. Now these are things that pop out in my mind. But that's where we could really -- you know, you have some input and they -- I think there obviously are dramatic examples because I'm hearing them but we need to identify them and put them down. We can do the research on them later, we don't have to have it all spelled out. But what about the Athos or, you know, whatever it is and things that -- the more current the better.

MR. RAINEY: You want to jump in, Bill, or -- I wanted to talk about what -- like, for example, we tried to get that in on the Athos I, the -- you know, on page I guess five. We're talking a little bit about, you know, there's been some progress, how important they are and then, however, incidents like, you know, the Exxon Valdez, the Athos I, you know, striking a submerged object in a navigation channel and talk about the -- you know, the disarray in the response and recovery in the Gulf and talk about being stark miners and continuing hazards and how important the survey work is. And then, again, it kind of maps back to a most wanted that I proposed or suggested back on page three, conduct full bottom coverage

hydrographic surveys of federally maintained channels, approaches and anchorages to detect submerged objects and other hazards to navigation. Coordinate effort across multiple agency jurisdictions and budget authorities, and that's shorthand for we obviously know the tremendous difficulty you have there with NOAA, you know, has jurisdiction outside of the federally maintained channels, Corps of Engineers and the split and the Congressional, you know, budgetary authority and oversight. But again, that's a -- I would think one of our critically most wanted things. We just can't tell ships to drive in channels and then just, you know, good luck because we know there's a bunch of junk down there. Bill.

MR. GRAY: Yeah. And you should also put in some pictures of the anchor and the pump casing that were sitting right in the middle of the channel that the Army engineers didn't find that caused the Athos accident. And I would say in the same token, on page three, your most wanted, there are 13 items listed here. I would think it would be a more punchy report if we were to reduce this to three, four or five. And I really think -- and the one you did right there, you conduct -- I absolutely agree with that. That would be number one or two for me to do that and I would have one or two others -- those are the really gutsy things we want to do. Whereas increase investment in emerging surveying, mapping and geo-positioning tech -- well, yeah, you should always be following what's going on in your field and be

able to do it a little bit better. But you -- the problem is we've got the ability now with identified technologies that we can't use because we haven't got enough money to use the things. It's -- and I'm not so much worried about new -- and you mentioned I think, John, the work that you're doing. I remember Dave MacFarland telling me a couple of years ago that once he got this multi-beam stuff going he was -- they -- he was averaging something like one and a quarter new wrecks found each day, in other words 400 or 500 a year or something like that and finding big rocks like out in the eastern Long Island Sound at -- what's that -- Northville there, they found a huge boulder out there, something like that. We've got them between Block Island and Mantauk there, the -- a boulder alley or whatever, you know about that Steve. And these are examples of things that really are why do we want more attention put in this direction and take some of the other ones which are let's keep doing our job, of course. Do we -- improve the efficiency in NOAA's contracting process. Well, that surely isn't number two. I mean my god, the contracting process works, whether it works as well as it should or anything else like that, but boy that sure doesn't excite me and I don't think it should excite many people. Well, why can't -- with all the effort we've got on the PPBES or something like that just can't you fix some contracts too. I mean that ought to be pretty simple. It's not to me an HSRP most wanted.

MR. RAINEY: All these are trying to do is kind of placeholders to sort of hopefully, you know, provoke some discussion and ideas and we can scale it and scope it so that, you know, whichever particular one or whatever. But I think that's a really important point is that, you know, this isn't, you know, ready to say this -- these are it. These are just my ideas and I put them forth as, you know, some possible things to take a look at. But -- so I'm in total agreement there, that it needs to -- you know, we need to say, you know, what's important, not necessarily just, you know, everything. Tom.

MR. SKINNER: I don't know if this one's on, I guess it is. Tom Skinner. I just wanted to go back for a second to the idea of whether it's focused on navigation services or some of the other activities. And I think you can have your cake and eat it too. This does -- the -- this draft I think does a pretty good job of sort of framing that, it may need to be altered a little bit. But by focusing on the nav services but then having a very shorter section on here, some other applications of all this data that can be used for other things. You also get at the whole idea of not being a stovepipe function, you know, a one purpose activity which I think in today's political climate is a -- is tough to sell. And Dave and I were talking earlier, I know that from -- when I was at CZM and through our connections with Dave Brown we were doing this Massachusetts Ocean Resources information system, this

metadata thing, and there's all sorts of data at the Coast Survey which was made available to us which we used for several -- I'm not sure if it was tens or 100's of layers of data that was extremely useful. And having something like that that just explains to someone like a Congressional staffer that this data without any additional funding or activities can be used (indiscernible).

MR. RAINEY: That's exactly what I'm trying to -- yeah.

MR. SKINNER: I'm just saying Susan Snow-Cotter, you know, we should have a little box in the report sort of saying this is how we used this data to help with aquaculture sighting.

MR. RAINEY: That's exactly what I'm hoping.

MR. SKINNER: (Indiscernible) to navigation and it shouldn't be the focus of this report but should say this has other applications, you know, in day to day coastal management.

MR. RAINEY: Are you suggesting that? I mean because that's precisely what I'm hoping to do and what I think underpins the -- you know, our assertion that it's one of the best public investments because you're getting so much for this and, you know, don't -- are you suggesting to -- you know, as far as the structures now with like the resilient communities, I mean can it be talked about there or are you.....

MR. SKINNER: Yeah.

MR. RAINEY: .....suggesting to pull it into the chapter on -- I mean that's what I'm wondering is how to structure it.

Because that's the message I'm trying to drive home and I was hoping to do in the one document. But do you -- functionally the structure of it, what do you think (indiscernible)?

MR. SKINNER: The only thing that I saw, I liked the resilient communities idea but one of the things I noticed was the beginning chapter or the opening chapter is about navigation services, the second chapter is about hydrographic services. And it might be more useful to sort of start with hydrographic services saying this is the primary focus but it's also useful for a lot of other things and then go into here's the meat of our -- of what we want to say, it's about navigational services. And then under the -- you know, further down talk about other potential applications for the same information.

MS. BOESE: Would it -- we have some extra pages, what if we just made its own other applications, far reaching nature of hydrographic information and services so that people can -- and then have visuals that reflect that so that to tap into what you've been interested in all along, how far it does reach that they can actually see that. Because we do have the space to do that, we could just make it its own section.

CAPTAIN MCGOVERN: I've been trying to jump in here. I disagree with that. I would like to connect -- and just -- I was just going to bring this -- I was -- before Tom said it I was going to say we need to talk about full bottom coverage. To me I would connect that directly and talk about, as Steve

mentioned before, map once, use many times. I would put, you know, all right, full bottom coverage can be used in all these other -- for all these other things, for fisheries, for this, for that. And this way if you do pull it apart, as the Admiral said, you know, to use certain -- it's connected there otherwise you're going to be pulling something from here and something from back here and -- you know, and if this goes to the Congress we know their -- you know, the attention span, that if it's on this page and then it's on page 22 they're never going to connect it, they're not. So to me I would -- as each thing I would weave them together. I just think that way makes it easier also for anyone else to use it.

MR. RAINEY: And maybe then we can use the extra space that we have, we just make that section -- you know, we expand that maybe. John, and then I wanted to go back to Dave then. It sounds like we're starting to arrive at a consensus, let's try to get it, you know, under one report. If -- Dave, if you had some specific -- you know, we wanted this to be as robust, you know, for NGS as it is for Coast Survey and -- you know, and others and we want to make sure we're capturing all the priorities. You know, if we go with this approach we want to try to, you know, address it. But -- so maybe I could ask you that. But Jon Dasler, did you have a comment on the last?

MR. DASLER: Yeah. Well, just to back up a little bit when we were talking about direction obstructions. I mean

sidebar to some of that is having say a hit list on the side that lists the annual -- how many wrecks and obstructions that have been discovered every year and having some images of that.

MR. RAINEY: Yeah, that'd be a great idea. And I would -- I was going to suggest maybe because we're going to hear from Doug Barrett on the National Survey Priority Plan, maybe that would be a new little enhancement they could run there as well is how that they picked up and that'd be a running tally if that is, you know, statistically achievable.

MR. DASLER: Right. And then back on Tom's comment and Andrew's, I think you could incorporate that. I think making that tie, first showing how important it is to the navigation system and then just carrying it down. And you wouldn't necessarily have to incorporate everything in this document, you can -- NOAA has a lot of excellent documents that you could reference and draw attention to as examples but you could put in some excerpts out of that. For example, the Coastal Services Center has a great brochure that highlights to coastal managers all the uses of multi-beam and side scan data and how it can be used for coastal management and they go through, you know, a great pictorial and great examples and, you know, possibly something can be pulled out of that or reference that document. But I think they did a great job in just showing how you can take this full coverage data that primarily used initially for charting and navigation and how not it's being -- again, the

many uses idea and used for different applications and try to tie that all together.

MS. BOESE: And what is that document again?

MR. DASLER: I have a copy, I -- the Coastal Services Center, I don't know, Jack, if you're familiar with it. But I have it back in my office, I don't recall the name of the document offhand.

MR. RAINEY: Scott.

CAPTAIN ARMSTRONG: Yeah, I'd just like to say I'm in agreement with the direction we're heading here and I think the consensus and I would just think that we should spend or someone should spend a fair amount of time working on the title. Because I think a lot of people are going to look at the front cover and they're either going to open it or not open it depending on what the title it. And I think it's very important that we try to keep that focus on the Marine Transportation System but still sort of hold the promise of all the other uses. And so I -- I mean I think the title as it sits now is falling short of what we need.

MR. ZILKOSKI: Dave Zilkoski. And I'll -- can you hear me, is that on? And I'll address what you were asking me, if it's getting closer to what I think it'll help in terms of geodesy. And first let me say I'm not saying that you don't need something like this for the Marine Transportation System. Certainly they don't seem to be making as much traction, and as

Lou mentioned about earmarks and so forth and not getting something funded. So you do need something there. Although doing the same old thing over and over again may or may not get you where you want to go so I think changing something slightly different. I'm not sure you're heading down the road where you're not doing something the same. I think what Tom was bringing up, you're doing something a little bit different and that's where I think geodesy would play a role. But as you'll hear and as I talk about our programs, we do a lot more than just the Marine Transportation and if you -- you heard from Steve when he talked about his C and T goal. Well, geodesy's the foundation for a lot of those programs so when you start talking about aviation weather, my GPS CORS provide information about the atmosphere that people use. They also provide information for space weather. Those are all important things to aviation, they're important things to transportation in general. And I guess I look at transportation as transportation, not marine transportation. There's air, there's land and there's sea. So I'm always looking at it from three things and I'm seeing this committee -- not saying it's right or wrong, I'm just saying from this committee you're focused more on the sea part of that. Okay, that's understandable, it's the makeup of the committee. So I think if you do do the one document, which I think that Dick said was probably the best solution which I agree with, I think the title does become very

critical. And I think you can weave in a lot of these messages along the way and geodesy will play a foundation role in there and it may be useful for me. But understand if it's going to be useful to me, your advisory committee, I'm going to be asking questions of what's my role in aviation weather, what's my role in aeronautical positioning of -- not just the Marine Transportation System. So I think we can work together on that and whatever you decide will be the best move for now. Because you're -- as Jack said, your committee's going to be here for awhile, at least we hope and we're looking. But I want to be able to utilize it to help me move on in geodesy.

MR. BOLEDOVICH: I just wanted to encourage you to say one thing in your report is to say things that I can't say. Put things in your brochure that if I want to put out an agency brochure I couldn't say. I have to get my stuff cleared through OMB, you do not, and consider that in your deliberations.

MR. RAINEY: And that was -- Admiral, that was Glenn if you haven't got the voice ID thing. And I think that's a real important point but I think that -- I think -- to me when I look at what -- you know, what's the best we can do. I mean we have a special -- I think that drives the point, we've got a special opportunity and maybe one of the reasons why this committee can be helpful is to take a look and to just put out -- we can say what we can say. I mean I think that's an important point and that is -- and I think the best thing we can do is we can focus

on what the needs are and what the requirements are and then try to -- to the extent we can, to reach a consensus about maybe some prioritization there and I think that could be useful and -- you know, because we're not -- we don't have -- you know, we can just keep -- and I don't -- and again, it may not be doing something different or new but I think just to keep saying, gosh, we've had -- you know, all this work has gone into this but, you know, we really have to keep saying, you know, we have these requirements and they're increasing and we've got to find a way to get some of these services caught up to the requirements. And so I'm hoping that this can be a start on that. Jon.

MR. DASLER: What about just modifying I guess the title I guess to address those concerns to something like hydrographic services contributions to a marine community or something where you can start out then just stepping your way through and highlighting what all these critical connections are. So more of a broad encompassing rather than just saying the Marine Transportation System. And even though we can still have that as our highlighted and a place we're starting from we can make that whole big connection. And so here we are, the Hydrographic Services Review Panel, here's our thoughts on what hydrographic services provides to the nation and the importance of it. So it's more encompassing than that and then we just kind of step through it.

MR. RAINEY: Well, I -- absolutely, I think we can take a crack at that and, you know, broaden that out and express that better so it doesn't just limit the document.

MS. BOESE: I think we should just break at noon.

MR. RAINEY: We're kind of out of time, we're going to have to break and do lunch so we can catch up to our regular session. But I think it sounds like there's agreement, you know, to go forward with this. You know, at a very minimum that we've got a consensus to try to encompass -- you know, to cover the highlights of our charter which expand -- you know, cover the MTS but beyond as well. If you can be thinking about if there -- we talked about weaving in some of these other broad uses to try to, you know, emphasize the crosscutting. And if there are sections that you see or, you know, if you see it a different way or you have a different vision of the basic breakdown or the flow of that or something that's missing or not there, need to get some early advice on that because I think what we want to do is sort of have a consensus and agreement on that and then we can move forward and then start talking about, okay, within those sections some of the major points or themes that we're trying to emphasize and then the other things that we can weave in there. I think it was a good discussion. I don't know if anybody has some other comments that they want to put on the table here before we take a break for lunch.

ADMIRAL WEST: Yeah, how am I (indiscernible) pale ale

through this phone?

MR. RAINEY: Admiral, I'm sorry, could you say that again?

ADMIRAL WEST: How am I going to get my frosty pale ale through this telephone?

MR. RAINEY: Bill.

MR. GRAY: Ann gave us three pieces of paper and asked for some feedback on that and I think you also put some other dates. Are we going to return to this subject before we leave Anchorage? We are.

MS. BOESE: Just based on what we've talked about so far I think that I'd like to come away with at this point, in addition to obviously anything else, is do you think that we should figure out the most wanted list, how -- whether it's going to be a few, whether it's going to be 13 or whatever, order, et cetera. I'd like to have people's input on examples, real life examples that we can put in because I'd like to go with -- even if it's just the name of an accident or the name of something and where it applies, what section it would apply to. And if you're -- you know, don't -- the HSRP recommendations are sort of the guiding material in terms of how these sections are playing out. So if you're looking at the recommendations and say, oh yes, well this happened and that's -- that is related to this particular problem or where the need's not being met. And some ideas about the broader uses that we can incorporate into the document. That would be great. And I agree totally with

the title and, you know, it's a work in -- it's a -- it's in progress and it should in the end concisely state exactly what it is that we're trying to do and I think it will.

MR. RAINEY: Okay. Well, let's go ahead then and adjourn for lunch. And Barbara, is there specifics on that that.....

UNIDENTIFIED FEMALE: (Indiscernible).

MR. RAINEY: Okay, okay. Okay. Okay. All right. Thanks very much.

(Off record at 12:02 p.m.)

(On record at 1:10 p.m.)

CAPTAIN BARNUM: .....Hydrographic Services Review Panel meeting here in beautiful Anchorage, Alaska. I'd like to welcome everybody. For the public that has arrived, please be sure you sign in. There is also handouts back at the back table. I'd ask you also for any folks that have cell phones, we had some concerns with cell phones and the interaction with the PA system, if you'd please secure those please.

Next I'd like to remind everyone the purpose of the (indiscernible). So just to remind the panel members as well as the members of the public, this mission goals of the Hydrographic Services Review Panel. The HSRP, or Hydrographic Services Review Panel, is governed by the Federal Advisory Committee Act and was established by the Hydrographic Services Improvement Act amendment of 2002. This panel is charged with advising the NOAA Administrator on matters specified in the

Hydrographic Services Improvement Act specifically related to hydrographic services. In a nutshell hydrographic services are those services provided by three program offices within NOAA. That's the National Geodetic Survey, the Center for Operation Oceanographic Products and Services and the Office of Coast Survey. The panel membership consists of 15 voting members. These are non-government employees appointed based on their particular expertise. Members of the panel do not represent the organizations or the entities that they are employed by, but again they are on the panel by the mere fact of their particular expertise. The terms of the members, one-third were initially appointed to two year terms, one-third were appointed to three year terms and one-third were appointed to a four year term. All subsequent appointees will be for a four year term. There are three non-voting members consisting of government employees, one being Andy Armstrong, the Co-Director of the Joint Hydrographic Center, and there are provisions for two additional government employees. These are currently the Director of the National Geodetic Survey, Dave Zilkoski, and the Director of CO-OPS, Mike Szabados. Our meetings are required to be held minimally twice a year, although this panel has established a pattern of approximately four meetings per year. With that I'm going to turn the agenda over, the microphone to our Chairman, Scott Rainey.

MR. RAINEY: Thanks, Steve. Again, I'd like to welcome

the public for joining us and I'm very honored to be able to introduce our speaker, John Rayfield. John is currently the Staff Director of the Coast Guard Maritime Transportation Subcommittee of the House of Representatives and we had asked if John could come and address us. It was a timely chance to check in with him because John's former position with the Resources Committee and was primarily involved in drafting the Hydrographic Service Improvement Act which stood up and chartered this committee and John has a particular knowledge of NOAA's programs and now with his perspective with the Coast Guard, Marine Transportation System and many of the things that we've been talking about with the Committee on Marine Transportation System and others coupled with John's work with Alaskan issues over the years it was particularly appropriate and very happy that we could have John come and talk to us about many of the issues that we've been working with as we look forward to some of these events coming online. So I'll just quickly kind of turn it over to John and we'll go ahead and open up our afternoon session. Thanks.

MR. RAYFIELD: Welcome to Alaska. (Indiscernible - away from microphone).

THE REPORTER: (Indiscernible).

MR. RAYFIELD: Okay?

THE REPORTER: Yes, go ahead.

MR. RAYFIELD: All right. Well, on behalf of Chairman

Young appreciate you all coming to Alaska and he regrets he couldn't make it today but sends his regards. He's the only licensed merchant mariner in Congress so this is an issue of some considerable importance to him. And 60 percent of the critical survey areas that have been identified are in Alaska, so -- and you couldn't pick a better place than the Captain Cook, the original Pacific navigator, and if you get a chance you should go down and see the Captain Cook statue that sits right at the head of Cook Inlet. It's a good -- also a good view of the inlet if the weather clears up before you guys leave.

Scott's pretty much told you who I am and why I'm here. I would just note that Chairman Young introduced both the Hydroservices Improvement Act and the 2000 reauthorization when he was Chairman of Resources and I was working for him there. Ten years ago -- started reviewing this program, had some background hearings, meeting with the industry groups and the agency. Coast Survey was in pretty bad shape. They had three hydrographic survey vessels still running, that was down from 11 when the agency was created in 1973. They were still using state of the art 1938 single beam technology. There was no hydrographic survey plan and the digital revolution was moving forward without the Coast Survey really participating in it.

So there is a lot of good news so we'll start with the good news. You do have the Hydrographic Services Survey

Priority Plan now. It's published, there's public input and it's updated periodically. That took a huge amount of work on the part of a lot of people at NOAA and it has been a major accomplishment and it allows us to establish some quantifiable way of looking at the program's success. Now to full bottom surveys, chart updates are now all digitized. I remember the first time I went to Coast Survey they were still drawing lines on Mylar overlays to do their map changes. And we're making progress, not as rapid as some people would like, but progress on getting a full suite of electronic navigation charts. And we've added additional survey capacity both by the replacement of one NOAA vessel with a much newer more modern vessel, the reactivation of one survey vessel that had been mothballed for over a decade, and through the use of contractors. To accomplish those changes in the last 10 years agreements were made between Congress and the administration that most of the program growth would come through contractors. The Hydro Services Improvement Act essentially blessed that agreement and the Appropriations Committee at that point established a new funding line that if everything goes well will be roughly $30 million for contract surveys in fiscal '07. While there were a lot of other factors that were involved in moving the program forward that certainly was one of the key agreements. And I know that there are still some proponents of an all federal program and there are some proponents of an all contract

program. All I can say is the results pretty much speak for themselves. NOAA's now building electronic charts based on the newly acquired full bottom surveys, they're getting updated tide and current data and they're delineating shorelines that haven't been looked at in decades. So I think we have to see all of that as success.

That doesn't mean there aren't still a lot of things to do. When we started looking at this in '95 and '96 NOAA identified about 43,000 square miles that's critical for navigation that needed to be surveyed. Had we fully funded the authorization levels in the Hydrographic Services Act we figured it would have taken about 10 years to survey that area. As it is at the end of 10 years we probably will have about half that area surveyed, which is still progress because the original estimate was it would have taken 44 years just to finish that area. And then I understand there's about a 10 percent increase in the critical area that's been added as the public has reviewed that plan and looked at it. I would not even calculate how long it would take to survey the 500,000 square nautical miles that are considered navigationally significant. I'll just say we should all live that long.

As you know next year is the 200th anniversary of the Coast Survey Thomas Jefferson established in 1807, it's 12 years before he founded the University of Virginia, which is irrelevant except that I'm a UVA grad. So I hope the panel will

undertake a bicentennial review of the program and make recommendations to assure its future for the next not 200 years, at least maybe 10 or 20 years out in the future. I propose a couple of five year goals. First, try to get sufficient funding increases for contractors to do the surveys, the tide and current measurements and the shoreline delineations so that we could complete the critical area surveys in five years rather than 10. Number two, complete the suite of electronic charts. And number three, and the contractors won't be happy about this, but modernize NOAA's hydrographic fleet to keep that in house expertise which is necessary if NOAA is going to continue to maintain the liability for the charts. You've already got the Jefferson online. Looks like there will be money to finish the SWATH vessel to replace the Rudy. So I would argue, and of course I work for an Alaskan, that the next thing you need to look at is replacing the Rainier and the Fairweather. They came online in 1968. By comparison my father bought his Ford Galaxy 500 in 1968. He put 260,000 miles on it and he sold it 18 years ago. These vessels are still in relatively good shape but they're not going to last forever and the deferred maintenance on them is significant. And rather than addressing that deferred maintenance looking at new vessels is probably the way to go.

So, to achieve that first goal, Hydrographic Services Improvement Act needs to be reauthorized at its current levels

and the administration needs to make budget requests consistent with those levels. Jack's not going to look at me on that. Second, I would argue that the easiest way to replace the Rainier and the Fairweather would be to build a fifth ship in a line of ships that NOAA's already building. They're fisheries survey vessels, they requested funding for the fourth one in fiscal '07. It would be a great way to celebrate the 200th anniversary of the Coast Survey if in fiscal '08 they ask for a fifth FSV that was modified to be a hydro vessel. That's not perfect, they won't carry as many launches as the Rainier and the Fairweather. It would be wonderful to have a custom designed high latitude survey vessel, however the difference is the FSV is a real vessel and the custom designed high latitude survey vessel is an imaginary vessel that we aren't going to see anytime soon, so those would be my arguments there.

On bigger issues, the long term things I would hope the panel will be looking at. First, how to integrate the hydrographic data that we're amassing with all of NOAA's other coastal and ocean observation databases. Really the authorization for those programs now exists in the 1947 Act, the same Act that established the Coast Survey. While it was clearly looking at nautical charting and commercial activities it did envision some broader scientific research activities. To the extent that it's possible all of that data should be available to the public and to coastal managers and to

researchers and anybody else who wants to look at it. At the same time I would also encourage the Coast Survey to look at all of NOAA's other coastal and ocean assets to see if there's data that they're collecting that would be useful to the Coast Survey that we would not have to then spend the money to buy separately.

Second, improve the coordination between NOAA, the Corps and the USGS on establishing integrating mapping procedures. Having three different incompatible mapping sets just does not make any sense for the taxpayer's money. I don't really know how to do that. Since the Chairman isn't here I'm going to tell at least one funny Alaska hunting story, I will tell you my funny Alaska interagency cooperation story. I've been working on a cleanup project on some islands that NOAA owns and is going to transfer to the natives who live there, for many years at this point. And they produced a list of 97 projects that had to be carried out before the land could be transferred. Most of them were fairly routine, there was a little asbestos, there were a lot of car bodies, old batteries, most of it is diesel fuel contamination. But as I'm reading down the list I get to the bulldozer in Little Polavena (ph) pond. So I thought okay, that merits a phone call. Why is the bulldozer in Little Polavena (ph) pond. Well, turns out it was a Fisheries Service bulldozer and it didn't work. The Coast Guard had a diesel mechanic so the Coast Guard took the bulldozer, fixed it and

then the Fisheries Service said, well, that's works, that's our bulldozer. So Coast Guard said no, we fixed it, we're keeping it. So in the dark of night a fisheries biologist snuck across the island, hotwired the bulldozer, proceeded to drive it back across to the Fisheries Service property and unfortunately halfway across Little Polavena (ph) pond spring arrived, which lasts about two weeks in the Pribilof Islands, and the ice broke and there sat the bulldozer for 20 years. So, we have now removed the bulldozer and it is in a landfill somewhere in Seattle I believe. So I don't want to minimize how difficult it is to get federal agencies to cooperate on anything. But I think that really should be a priority. Having more than one coastline if you try to explain that to the public they look at you like you're insane. But yes, it's true, different federal agencies have different coastlines.

And finally, I hope that you will look at the constantly evolving technology to see the ways in which we can make the -- both the data acquisition and the chart creation and production processes more efficient, keep them up to date and ships and planes are expensive. To the extent that we can reduce ship and plane hours that will save us some money and let us get these critical areas done sooner, so.

Those are my thoughts. Again, appreciate your coming to Alaska and -- you doing questions or.....

MR. RAINEY: Thanks, John. I would -- I think the panel

would really appreciate a chance to, you know, just have some time to have a dialogue with you. So let me go ahead and open up the floor. Bill, did you have a comment or.....

MR. GRAY: Thank you very much for a very clear talk. I'm a little curious that you did not mention anything about the port system. Because the post system is to commercial mariners I would say easily the most desirable piece of information that they could have but don't have because even though that technology was developed some years ago and a number of ports systems were installed, I don't know, 10, 12, 14, whatever it is now, each harbor has to go around with a begging bowl simply to pay whatever it is for the maintenance and I think it's an absolute disgrace. I happened to, just to back up on this, do a study called Intertankers U.S. Port and Terminal Safety study in 1995, '96, which I think led pretty directly to the MTS study that came out in 1999. And in doing that work back in '95, '96 in I would say all the conversations that I had with professional mariners, commercial mariners, in this country and I include in that the pilots and so forth, they said our biggest need it to have accurate data and especially accurate real time data. Why is it that we have this discretional situation that even for the port systems that we've got each harbor has to pass the begging bowl to make the damn thing work.

MR. RAYFIELD: My boss has requested full federal funding for ports every year since 1996 probably. The appropriators

unfortunately have made the determination that this is a private sector issue, that it's important to industry and that industry should be paying for it. Sadly there are no appropriators here to have to defend that to you in person.

MR. GRAY: Okay. If I could.....

MR. RAYFIELD: But Mr. Young totally agrees with you.

MR. GRAY: Okay. I just add to this, we did say.....

MR. RAYFIELD: It is important and I did actually consider putting that in here but.....

MR. GRAY: Okay.

MR. RAYFIELD: .....I know the uphill battle we have with the appropriators and I considered putting streamlining the contracting process in here but you all are only human and I think the contracting process is beyond human.....

MR. GRAY: Just one follow on to that if I could because in that same Port and Terminal Safety Study we said why is it that. We have something called the harbor maintenance trust fund, we also have the house bill liability trust fund. Monies are gathered from marine users, and contrary to what happens in aviation and highway systems marine gets almost none of that money.....

MR. RAYFIELD: Right.

MR. GRAY: .....that was collected from them. So when somebody in the Congress says that's the industry's job to do, the industry is being taxed without representation or result on

that.

MR. RAYFIELD: Right. And I do not know why NOAA did not get any funds out of the harbor maintenance trust fund. I've asked people who were involved in writing that back in '86 and they just -- I've never quite gotten a clear answer. My guess is NOAA just wasn't at the table when they divvied up the funds.

MR. RAINEY: John, could I ask you maybe a -- from your vantage point now and you talked about the -- I guess it's picking up on the interagency or the -- you know, the collaboration. That's been a big theme in a lot of the recent efforts. And as we look ahead to the reauthorization of the HSIA and others I'm wondering if you had any views or thoughts about -- I don't know whether we call it the -- or just are there issues that you see from your work on resources with NOAA and now on Coast Guard when we look at the array of just the jurisdictions and budget authorities and things and we -- perhaps we're hoping, we all are hoping we got an opportunity here with the new CMTS. But as far as the legislator or congressional vantage point are there particular issues or concerns that you're sensing with the NOAA programs either in the -- do you think that the -- there's an understanding of these programs and the value and it's just other hard choices, political choices are being made or do you see an effort to work across, you know, Congressional jurisdictions authorize as appropriators, science versus resources, that sort of thing.

We've got a lot of players and I'm just wondering if there's -- I know the administration is taking some steps, I'm wondering if you're seeing any improvement maybe legislatively across the jurisdictional boundaries there.

MR. RAYFIELD: Well, in terms of appropriations you're in the same boat that we're always in. The Senate has come in with much higher numbers for NOAA than the House has come in with and they'll all be conference issues. The good news is for most of your programs didn't get -- I didn't bring my chart with me but as I remember most of the programs did not get cut too badly in the House bill for nav services. But, yeah, it's the same situation. On the reauthorization, if you can keep extraneous matters out of it that bill just goes to one committee in the House and one committee in the Senate. Now there are other extraneous issues, some dealing with the NOAA CORS that, you know, might be ripe for consideration there but that will be up to those authorizing committees to determine. I will encourage them to look at something that works with the Corps of Engineers and NOAA to try to get that full bottom coverage issue addressed.

MR. RAINEY: Okay. I just wondered if you're sensing, you know, maybe an opportunity to do some of those cross jurisdictional things and that one, that particular issue, is something we're.....

MR. RAYFIELD: Yeah.

MR. RAINEY: .....I think going to try to comment on as strongly as.....

MR. RAYFIELD: Right.

MR. RAINEY: .....we can because that's a difficult situation.....

MR. RAYFIELD: Yeah.

MR. RAINEY: .....where you've got that split division of responsibility there.

MR. RAYFIELD: The two committees of jurisdiction there generally work very well together, so that's the good news. At least on the House side.

MR. RAINEY: Andy.

CAPTAIN ARMSTRONG: Andy Armstrong. John, if we should be successful in getting the critical backlog on a five year schedule, and even if not if it's on a 10 year schedule. This morning we were listening to a presentation on the NOAA planning process which has us already out to 2013. Do you see continued support on the Hill for hydrographic surveys past the point of completing the critical survey areas or are we going to be faced with a crisis in five years or 10 years in terms of justifying the need for additional survey work.

MR. RAYFIELD: Well, I think that is one of the primary motivating reasons for the Coast Survey to start working with the other parts of NOAA and be seen as part of the effort to gather the data that observes and explains the environment. And

I think that -- being seen that way as opposed to being seen only as a group that produces nautical charts and nothing else, I think that's where their future needs to be as part of that whole integrated system of looking at the coasts and oceans and what's happening out there. You know, will we ever map the whole EEZ with full bottom coverage the way we map important navigation areas? Probably not. But even if you mapped it at a much lower resolution there would still be reason for the Coast Survey to be out there or the contractors to be out there. So I don't know if that answers your question, but.....

CAPTAIN ARMSTRONG: Thank you.

MR. RAYFIELD: Okay. Thank you.

UNIDENTIFIED MALE: Okay. Thanks very much.

CAPTAIN BARNUM: Thank you, John. The next agenda item is an update on NOAA navigation services. I'll be tag teaming this with Director of NGS and CO-OPS respectively.

Next slide please. FY '07 navigation services summary. The Senate and House marks are both available in your package. The Senate matches the President's requests by and large with major earmarks for EEZ service surveys for the UN law of the sea claim. NGS GIS mapping, height mod elevations, Great Lakes NWLON and Alaska tide and current data. The House, as was mentioned earlier, is well below the President's request. Impacts current levels on all fronts.

Next slide please. This slide shows in a table format the

FY '06 enacted, the 2000 President's budget request, the House mark and the Senate mark. As you can see from the House mark we are zeroed for ENC's, we've basically stopped production of ENC's. Shoreline mapping zeroed and the joint hydrographic center zeroed. Significant shortfalls there.

Next slide. Hydrographic survey developments accomplished in 2006, implemented new processing procedures, implementing the Q process (ph). And planned for '07, continue evaluation of AUV's and interferometric side scan sonars to enhance survey capabilities, develop operating procedures for transition and also implement TCARI. It's an enhanced method of applying tide correctors to survey data. For hydrodynamic modeling, in '06 completed the transition of the Great Lakes model to operational status and established model environmental -- environment in Delaware Bay for community testing of models. Planned for 2007, Columbia River will be offered experimentally and to continue collaborative NOAA project to evaluate real time storm surge models coupled to an ocean model. Vdatum, Strait of Juan de Fuca North Carolina completed in 2006. Planned for 2007, the complete Chesapeake Bay and Mobile Bay to St. Josephs Bay, so doing height modernization. I'm sorry, doing the Vdatum on a more regional basis.

Next slide. ENC's, 550 completed to date. Maintain for critical notice to mariners, top 40 U.S. ports covered. No growth in number of ENC's available after FY '06 enacted and FY

'07 request not enacted, be no growth. ENC distributorship program is operational. To date six applications have been received, four were accepted and two are pending.

Next slide. RNC's, significant downloads, almost two million RNC's downloaded since December 2005. Regional RNC distributorship program is operational. Forty applications received, 35 approved, five pending and download statistics from distributors not yet available. The NOAA RNC trademark registration is pending, July of 2006 still hasn't come through. Hydrographic Products Quality Assurance and Certification Program still has no applicants.

Hydrographic survey vessel time charter, FY '06 appropriation earmark funds for a new time charter of two and a half million dollars. NOAA plans to contract with a hydrographic services provider specifying use of a dedicated vessel to complete a large survey area in Alaska. All five firms of our omnibus IDIQ contract have received a request for proposal. The most qualified firm with the best technical approach will be awarded the task order and that's eminent. Award in FY '06 for fieldwork to be -- start this fall and next year.

So -- next slide. Contracts, has a breakdown of the various dollars for FY '06 to the various contracts. In addition there was $20 million for emergency supplemental of the marine debris mapping. Those survey areas have been assigned to

our IDIQ omnibus contract. Contractors, we're in negotiations with those right now and expect award in '06 for work to begin in '07 -- begin this fall. In addition there was $2 million in tsunami supplemental and that was provided to -- awarded to Tenix for a project up at Puerto Rico.

Next slide. Showing a breakdown of the projects along the Alaska coast and the U.S. Coast. Next slide. SWATH vessel mentioned earlier by John, critical design review held in March of 2006. Initial reports that the sea keeping prediction did not meet requirements. Vessel construction costs increased with the increased cost after Katrina, Rita, shortfall of $5.6 million to program. Additional model tests and numerical analysis done subsequently and final report due was done July 31st. The report is that they -- it is technically feasible to build this vessel. Detail price negotiations in August 2006, must obligate $15.7 million in '06 funds this year so the clock is ticking.

Next slide. NOAA leadership briefed on programs cost shortfalls, commitments sought for relief from FY '07 to make program whole. Decision briefed to NOAA Deputy Undersecretary in September 2006. The Deputy Undersecretary determines go, no go on SWATH construction. Scheduled delivery now estimated for April 2008.

Next slide. Navigation Response Teams. Certainly laudable hurricane season performance were Hurricane Katrina,

Rita. Partnership with DOD technologies support working group to develop a NRT that could be used for harbor surveys. Also working with the technical support working group of DOD as a AUV for homeland security, countermine measures. NRT technically not operational, unfunded, sitting in a shed. Planned for the mid-Atlantic region and awaiting '07 appropriations decision.

Next slide. Certainly the issue along the coast still exists. Next slide. NRT coverage for the U.S., talked about the additional NRT. This is as it stands now, there are six NRT's, two on the west coast, one in the Great Lakes, two on the east coast and one in the Gulf.

Next slide. Planned coverage is to add two additional NRT's, NRT seven the summer of 2007 to cover the area of the Atlantic Coast and then in spring 2008 an additional NRT to split the Gulf in half, cover the Gulf.

Next slide. Mentioned earlier the marine debris mapping. Three major marine debris mapping projects, one is the Calcasieu Lake, that was a internal NOAA grant. The Mississippi sound pilot project was FEMA funding for a half million dollars for four test areas off the coast of Mississippi. Those were contracted out to C and C, the Mississippi Sound hurricane supplemental which I just talked about. The Navigation Services Division of Coast Survey spearheaded the coordination with the states of Louisiana, Mississippi and Alabama with public awareness. So out of this coordination with the local states

fisheries resources we identified the areas to be surveyed and that's shown at the bottom of the slide.

Next, NOAA is celebrating its 200th anniversary February of 2007, 200 years of science, service and stewardship. NOAA is looking to make this a high level visibility event to have a major event almost every month during the year of 2007. Some of the projects that include a documentary, film documentary, some -- certainly some public awareness campaigns and the transportation public service announcements in the Washington, D.C. metro. There's a website that's being developed and there's many, many other things that will be forthcoming.

Next slide. Example of the website. Next slide. And I'll turn it over to Dave Zilkoski for National Geodetic Survey.

MR. ZILKOSKI: Okay. Go ahead, the next one. This is geodesy budget and just for inside geodesy the shoreline mapping is also part of the National Geodetic survey but it's separated out and it was already mentioned by Steve so it's not part of this but it's another -- makes about $6 million. But you can see the geodesy base for '06 when you add it all up, there's about $20 million there and then the Senate mark and the House is still about the same but the bottom line coverage, from the enacted it goes from $32 million up to $22 million for the House mark and the Senate is -- you can see the one thing on there but I can't read it. The final number for the -- total of 43,560, I couldn't see the five because I didn't have it in my copy. But

point being there that is there is a significant amount that deal with the specific earmarks which tailor to the height modernization and leveling aspect.

Next slide. Now I'm going to go through this fairly quickly but I'm going to talk about four major aspects of the program, shoreline mapping, height modernization which you saw a big increase there, some deals with our CORS, Continuous Operating Reference Station, which are GPS, and some of our user services that a lot of people aren't familiar with.

Next slide please. The shoreline mapping, 11 of the 40 project ports will be evaluated this fiscal year and we'll have up to 4,000 miles of shoreline updated and we do this process with some in house as well as contracting out for the imagery processing as well and as the compilation.

Next slide please. In addition to our regular activities that we do we have been involved with FEMA dealing with the -- after the coastal -- the storms. We've been part of the process of providing them imagery and we're ready and stand ready to work with them if some hurricane comes up through this year. That's part of our emergency response effort that obviously takes over and replaces some of the activities that may or may not do if some major storm hits.

Next slide please. This is the height modernization program. As I saw -- as you saw in -- from the difference between what's enacted and what's in the President's budget and

what ends up being in -- from the Senate and the House, we actually received $9.9 million to do height modernization and this diagram gives you a little schematic of where they are and as you can see a majority of them are on the coast or up in the Great Lakes. There's a lot of interest for dealing with accurate heights along the coast and in the round waterways where most of the people live. So this is where the activity and the priorities are being produced by -- in the country. And it's not just using GPS to do it, it is -- some of it is modernizing and some of the new leveling as well as using enhanced remote sensing technology to be able to give better digital elevation models which ultimately is resulting in a height.

Next slide please. This is our schedule where we've gone out and talked to groups about height modernization to help find out what their requirements are, what they needed from us, what we needed from them. It's a partnership program. We work together on this, the money does come into our budget but it goes right back out to the community who actually implements the program. We have the national program of interest of trying to link all of it together but it actually is implemented locally.

Next slide please. Our GPS CORS, Continuous Operating Reference Stations. This is a partnership program which is, once again, funded by the locals. We bring the infrastructure in place where we provide the quality assurance, quality

control, data storage and the actual access to the data through our web process that the user out here puts their own equipment in, pays their own O and M fees, does everything themselves, all they do to us is they guarantee that it's going to be up and running, send the information to us, we QC it and then we put it out on our web and they can -- anybody can use it. And you can see it's grown up to 928 stations and they say that by the end of this fiscal -- or the end of the year we're liable to be up to about 1,000 stations. And once again, this is not -- most of this is funded by the outside community, not by us. The other important part about the CORS is that it supports not only the navigation and surveyors from positioning but it also supports the weather community, it helps with water vapor in the atmosphere and it helps with space, environment and it helps with the free electrons is the hydrosphere and with marine and aviation weather instruments.

Next slide please. We -- our program has been fairly successful in we have been -- had a lot of interest on the outside of trying to help people implement what we're doing inside the United States. And in Iraq the U.S. military came to us and asked us to set up a system for them and they are currently using our system and actually process their data on our servers for being able to get positions. They installed the receivers themselves based on our requirements, put them in, the data gets sent to us as they obtain it. But they are now

establishing coordinates in an Iraqi system obviously but -- relative to them but it's part of our process. The Mexican government also has a significant amount of CORS, not up and running as much as ours, but have worked with them and we help them in the process of their infrastructure maintenance because it's -- a lot of the data that happens on both sides of the border we want and we try to work with them on that. And South America is another example of countries that are very interested in helping trying to get our expertise so we've been working trying to help them.

Next slide please. Geodesy is a fairly small program, there's 225 employees and we cover the -- not just the coast, we cover from coast to coast. And we have what's called geodetic advisors and coordinators and they provide advice, that's what they're there for. They -- most of them, once again, is -- are along the coast but they are also inland, we have -- currently we have 29 advisors and we have what we call state Geodetic coordinator advisors, and actually Lapine is part of that program, that they provide a relationship between the two that we give advice in how to do that and the technical guidance and they do the implementation. So they bring to the table half of the resources to accomplish something and we bring to the table our expertise and guidance on how to do that.

Next slide please. We have a program now trying to find out what the users' needs are. Geodesy has been a partnership

program from the beginning. We produce a very, very highly accurate reference frame that other people use. So for the most part everybody uses our products, we're the framework, the foundation for what everybody else uses and starts and builds from. So we're always asking our users what do you need, what products and services do you want from us and then what we have is county by county we're trying to evaluate are we providing enough models and tools and resources so that that county is -- enable themselves to be positioning and able. Are they able to do their work using our system, do we need to do more workshops, do we need to have more models and tools, how do we do that. And so this county scorecard is that for every county in the United States we are going to them and getting them to tell us what their requirements are.

Next slide please. We also went out and got a contractor to look at our website and this a user service website and we've -- looking on there you can see that there's a government wide standard -- or government wide measure right now, there's what's a foresee company wide so that they see and then you got the NGS NOAA. So they evaluate you on content, functionality, look and feel, navigation, you can read the rest of them. But the point being here is we actually went out, got a contractor to ask these questions and it's still going on now, collecting information. So they were able to see where do we need to improve. We're actually not doing too bad which was a little

bit of a surprise to me because I'm not real pleased with my own website and how I get some of the stuff off so I was -- but it must mean that the rest of the world out there is pretty bad. So we're still looking at trying to improve our process and what we're doing and every time we go and do workshops with the county we're trying to get more specific about what do you like, what do you want from us and how we can help the process and move forward.

Next is Mike.

MR. SZABADOS: Basically just go over this chart real quick. In 2006 we had increased the National Water Level Program of roughly $2.5 million. That was to update the water level systems to real time. That's underway and I'll get into that a little. The PORTS Program which was unfortunately cut from $3 to about $1.5 million. In the 2007 the President's request of $24.9 includes the $3 million for PORTS as well as look at the House and the Senate mark and I can go into that a little bit later when I talk about the PORTS Program. But basically overall though the House is roughly $2.9 million lower than the House -- that the President's request. And in the Senate mark there's $2 million for Great Lakes water level enhancements as well as tide and current surveys in Alaska for $3 million.

Next slide. Updating the National Water Level Program. As I indicated that we had some additional increase in our

budget to update real time to the stations. We did 58 of those in 2006. We also installed nine new tsunami stations, one in Washington State, four Alaska, two Puerto Rico and two Virgin Islands. And as well we had enhancements for four additional stations, two in New Orleans, one in Lake Pontchartrain and one is underway and planned for Lake Bourne before the end of the year as well as Chesapeake Bay and Atchafalaya Bay in Louisiana.

Next. In the funding for the Alaska -- Alaskan funding list this year, we're installing 12 Alaskan short term water level stations in some critical areas where we don't have sufficient information on tidal dynamics. As well as we got funding as part of a supplemental to enhance and improve the damage -- nine Gulf stations that occurred during Katrina and Rita.

Next please. As part of the National Current Program, as you see here we installed 70 tidal stations, locations in Southeast Alaska, Penobscot Bay and Hudson River. We also are undergoing a new program in the Great Lakes. Traditionally our Current Program was in the salt water where there's tidal currents. And -- but there was identified a need for current information in the Great Lakes. This is the -- actually to the right the Tiahoga (ph) in Cleveland. As you can see the currents there can be extremely strong and the navigational challenges of going through what I would call a thread and needle. It's not just the water level for the draft and the

height of the bridge but also managing and -- the vessel under strong currents whether it's with you or you're going into the currents. But we have a pilot program in the Great Lakes, two of them, and that's being funded through the Great Lakes earmark funding.

Next. As far as our traditional updated tidal current tables, we have a major enhancement to that after -- doing a current survey actually here in Cook Inlet for the past four years. We're updating the tables for the Cook Inlet. On the table out there there's a special publication of what's going to be coming out in 2007 in our publication. But I want to highlight that the three reference stations is a great improvement, especially for Cook Inlet. The original reference station was Wrangell Narrows Pass which is over 600 miles away. It's like doing your tidal current predictions in New York Harbor based on Maine, that's the equivalent. And there's a lot more work to be done and we're looking forward to doing more work in Alaska. But 30 stations, new stations or reoccupied stations are in there, seven subordinate stations for Southeast Alaska as well.

Next one please. In the area of modeling, as Steve mentioned we transitioned three more Great Lakes models. These models include not just the water levels but currents and now we have a total of nine operational forecast models for tides and currents.

Next one please. Okay, the PORTS Program. As I mentioned earlier, the PORTS funding in 2006 was significantly cut in half but on a positive note in 2006 with funds -- supplemental funding with Katrina they've identified four ports to be implemented with PORTS -- with the supplemental funding, that's Mobile, Pascagoula Gulf port in New Orleans. We're under right now a process of working with the local partners to establish their requirements, matching their requirements with the resources available. Installation of those ports will start probably February, March of next year based on procurement of equipment and basically getting the requirements and the agreements in place. There are two additional new ports identified, one for Cherry Point in Washington state and Port Arthur. These are locally funded port systems.

Next one please. One thing I do want to highlight, there's a lot of accomplishments but one of the highlights and actually this is a -- was a cooperative program with NGS and CO-OPS working with the Army Corps after Katrina trying to do an evaluation of the performance of the levees and -- one of the things that came out and is a positive thing is that there has become a recommendation in the study that the standards for geodetic and tidal data to meet NOAA standards, that the Army Corps use those in the levee redesign. And actually last week Army Corps from Mobile District as well as New Orleans was in Silver Spring working with both our offices on those standards

and training.

That's it. The -- basically I would also like to highlight is that also on the table out front is a publication on a contribution that the CO-OPS did to NOAA's effort on the hurricane response, the hurricane season response. It's a publication based on interviews of individuals. We put a lot of technical reports out on what the storm surge was or how it benefited the Weather Service in its forecast. But the publication out back is the story of the people who contributed, who went in there, it's their personal stories and it's sort of a different perspective than we normally do and might be -- have some value, get a better understanding of the program and how we operate. Thank you.

MR. RAINEY: Thanks. Thanks very much. If I could maybe jump in and ask one question and then open it up. But thanks Steve and Mike and Dave. One of the things I'm most interested in from just trying to see how we can interact or what -- help. But just if I could point to a couple of examples and my fundamental question is, you know, what are the ramifications of the budget mark things and the two examples I have question about is the ENC database and the NRT's. And I don't know if they're similar situations, you know Mike's talking about the PORTS funding cut in half. But it seems -- I mean what's the next -- how does this play out? In other words we got zero funding on the -- I realize there's a difference in the House

and Senate mark and that's kind of a usual occurrence, but it doesn't seem like it's a satisfactory or a possible answer that we can now just stop at 550 ENC's, I mean just -- we just can't end there. I mean it seems like we've made a policy decision and direction that will -- we're going to build out the official ENC database and, you know, this is going to be the way forward. In fact Congress has mandated the Coast Guard to promulgate, you know, regulations for electronic charting systems, carriage requirements, there's a lot of things going on that all seem to point toward the ENC as -- you know, there seems to be a wide consensus that this is the way forward and yet we get a budget mark like that. It seems completely sort of inconsistent with the national policy here of what's trying to be accomplished. Similarly with the NRT's what we heard in Houston after Katrina, these are trailable boats and the expenses of these things are not overwhelming and yet we've got one sitting in a shed because of lack of funding or something. I'm just wondering what kind of -- can you talk me through on the program or the NOAA level on how these -- I understand you don't want to rob Peter to pay Paul and all that but how does this -- we seem to have a -- you know, these stated kind of national priorities but it sure seems like we're taking the hard way to get there. You know, how do you -- what does -- what can NOAA do or what can we do in our advice in NOAA to kind of highlight to me what seemed to be very inconsistent implementation of our, you know, direction on a lot

of these programs. I mean do you have any comment on that, Steve? I mean I -- I understand that if you don't get the funding there that, you know, you can't keep building new ENC's because then you have to maintain them and everything. But it's just an astounding conflict to me in that, you know, we're going to have this as a carriage requirement, this is our official national database and yet, you know, the funding is just not there. I don't understand that inconsistency and how to resolve that so this doesn't just keep happening to us year after year after year.

MR. ZILKOSKI: Scott, I don't have any information on why those particular line items were cut. I can tell you that the -- certainly the reduction in our base and with the elimination of the money for ENC's that's going to pretty much put a stop to the production of ENC's. Which doesn't make much sense since the Coast Guard is getting ready to promulgate regulations for the carriage of electronic charts. So it could be just an oversight. Certainly buried also in the production of ENC's is contract support so it's not just an in house effort. So those resources are, you know, on the table on what we decide to do and trying to maintain our production. One thing we don't have is RIF authority.

MR. RAINEY: Andrew.

CAPTAIN MCGOVERN: Andrew McGovern. I have a couple of questions on the different presentations. I guess one's for

you, Steve. I'm getting a lot of feedback on the website to update the ENC's and the fact that it doesn't work very well. Is there -- are you still working, is that a work in progress or.....

CAPTAIN BARNUM: That is still a work in progress. We're continuing, we have the update service on the web for updating the ENC's. We're, you know, trying to adhere to the international standards but it's a technical issue in progress. So we continue to work on that problem to make it smoother.

CAPTAIN MCGOVERN: Okay, thanks. And I got one other question. On these CORS sites, it seems like there are GPS reference stations similar -- how real time are they, the data that comes.....

UNIDENTIFIED MALE: Well, there's a couple of ans -- couple different aspects of that. The data depending on the partner it can be made near real time, you know, nanosecond type stuff. But most partners don't want to invest in that technology so they send it where we collect it on the hour. So say someone collects their data, they -- every hour we go out and get it. But it can be set up such that it is real time. All the Coast Guard sites and the NDGPS sites that we get, the federal sites, they are real time, that data stream as it's streamed to the ships that are positioning it's actually streamed to us and we have it and can turn around and give it back out again. We are pursuing the method of taking all data

that is given to us in the real time and turning around and giving that back to anybody that wants it in real time. So it varies depending on the partner.

CAPTAIN MCGOVERN: All right. Because I was thinking, I mean, you know, yeah, the Coast Guard runs their differential stations and the FAA runs their WAA (ph) stations and then we've got NOAA -- well, not running CORS stations but then we got these CORS stations and when we talk about this duplicitous efforts but this really isn't a duplicitous effort.....

UNIDENTIFIED MALE: No.

CAPTAIN MCGOVERN: .....this is basically -- you're using those same stations, they're part of your CORS.....

UNIDENTIFIED MALE: We manage it. It's the data that they do. In other words the FAA and the Coast Guard has put the stations in but it's actually -- we manage it, we back it up, it's our data, it comes to us. Once -- they send the correctors out because it's in real time but the data comes to us so, you know, it's not -- it's done working jointly together to do it. So we all have our roles and responsibilities on it so there is no duplication.

CAPTAIN MCGOVERN: Excellent. Okay, thank you. That was all I had, thanks.

MR. RAINEY: Adam.

MR. MCBRIDE: Adam McBride. Mike, I noticed that the supplemental funding included funds for port systems at

Pascagoula, Mobile, New Orleans and Gulf port. Can you tell me how those four ports, what were the criteria that were used in selecting them or did you make the selection or were they earmarked in?

MR. SZABADOS: They were identified in the language of the supplemental.

MR. MCBRIDE: So they were earmarked in there.

MR. SZABADOS: Correct.

MR. MCBRIDE: And does the supplemental funding provide for the installation and operation of those sites?

MR. SZABADOS: The installation and operation for one year.

MR. MCBRIDE: And then after that one year some other mechanism (indiscernible).

MR. SZABADOS: They'll address -- that's one thing we're addressing with the local partners that, you know, in the light of that no additional federal funding that the partner has a responsibility to fund their operation.

MR. MCBRIDE: Okay. So then there are port sites then in Tampa, Mobile, Pascagoula, Gulf Port and New Orleans, I realize those are not in yet, and Houston. Is there one is Corpus? Is there one in Corpus?

MR. SZABADOS: No.

MR. MCBRIDE: No. So there's getting to be pretty good coverage in the Gulf area although there's not -- all the major

ports are not done yet. It's somewhat disappointing that the supplemental -- I realize you didn't write the supplemental, but it's somewhat disappointing that only some of the ports affected by the hurricane season last year received this kind of attention and it's unfortunate that it took this kind of attention to bring legislators to do this type of thing which they should be doing at major ports nationwide in any case. Thank you.

MR. RAINEY: Bill Gray.

MR. GRAY: I'm not sure it's the right time now, but Andrew had asked a question about the complaints on electronic navigational charts. I've seen several articles in (indiscernible) recently which are kind of waving a red flag about these things where they're saying we're getting in front of ourselves and that people do not know how to operate these, well the integrated systems are different, people aren't adequately trained and so forth. And in one of these statements it said, and I don't know whether this is true about the electronic navigation chart. All too often in the past the IMO has been acutely embarrassed by mandating new technology only to be confronted with missed deadlines, malfunctioning equipment and lack of training. And there are two examples of that happening, it doesn't happen to be in the charting system, one of them is oily water separators which don't work the way they're supposed to and people are getting crucified for it.

And the other one is the -- what's the ship called, the Cougar Ace with the ballast water exchange situation. And I know that it's been one of NOAA's priorities to move towards an all electronic chart system, I know IMO is going to take this up I think next summer is the next time that they really come back to it. But I think there are people that are worried that there are differences, that people don't understand them, that the people are not correctly trained on them and so forth or set up their own way of doing so and is this something that we should study more as -- and when you get the money to make more electronic charts. I'm not very convinced that this is the right way to go.

CAPTAIN BARNUM: The -- our goal in NOAA is to produce -- continue to produce paper charts, the raster nautical charts which are a image of the paper charts and these electronic navigational charts. We are in concert with the -- through the IHO trying to produce a chart system. As far as the suitability in the systems, that's a different standard that's developed and I agree, I think there's some issues there on the training and the education of the mariner on how to interpret and use the data effectively.

MR. WHITING: Thank you, Captain. Larry Whiting. I was wondering about the planned coverage for the NRT's in Alaska and Hawaii. No mission?

CAPTAIN BARNUM: There's certainly a concern there that

the -- a concern with Hawaii and Alaska. We're talking about huge areas and you can't really trailer the boat through those areas. It's a -- it's something that we've thought about and we have not implemented yet. It's not an easy solution. Certainly we've talked about having an NRT that could be put into a C-130 if need be. Coast Guard is interested in that and we continue to pursue that idea.

MR. OSWALD: I just wanted to make a comment. These natural disasters are pretty good for budgets. December 26, 2004 there was that earthquake in Aceh, Indonesia. As a direct result of that there was supplemental last year that came down that was spread quite a few places in NOAA, I'm not sure how many places. But National Weather Service and CO-OPS received money and as a result of that our NWLON System in Alaska in 19 -- - in 2004 was 17 sites, six sites were built with that money in one -- well, year and a half basically, a year and a half. In addition six sites are op -- being built or one was previously built by the other part of NOAA, National Weather Service. I would like to see those sites integrated. It's all part of the -- you know, tearing down the stovepipe but they currently are only partially integrated. The National Weather Service accepts CO-OPS data but the other way doesn't -- that part is broken in my view. That's just a comment, but it was good, I mean we have more stations so that's good.

Another unrelated comment maybe directed to Steve is the

contract -- I guess it's called survey backlog line item in the budget came about about 1997 or '98 and Larry would remember, I don't remember. It started out at somewhere between $4 and $6 million, something in that range. It's been built to in the last few years $18 to $20 million, last year it was about $20.5. And in the President's request in 2000 -- I always have to think about this, 2006 and 2007 it was recommended, the President which is the admin -- your request or your predecessor, $30 million. So if it's $30 million it's a -- obviously a -- I guess is that defined then as base so would that go ahead as -- if it passed this year would it be base for 2008? Or maybe -- I guess that can't be discussed here in this meeting but what is some of the rationale for going from $20 to $30 and where did that money come from?

MR. SZABADOS: The rationale from going $20 to $30, you probably remember a couple years ago when they had the vessel time charter about $10 million and that had some implementation issues of its own on -- to effectively implement it. And what we have asked is to have that money put in or combined with address survey backlog which gives us a flexibility of working with our IDIQ contractors to let them develop the best technical approach on providing survey contract data. We feel it gives us much more flexibility in addressing the survey concerns of our coast. So that's how it went from the $20 million to the $30, that jump.

MR. DASLER: Jon, I'd like to comment on -- regarding the tsunami stations. Working with the National Weather Service, NOS is working with the Weather Service on national -- with National Data Buoy Center who has some (indiscernible) gauges to establish standards and we are trying to work with them to -- for us to utilize that information it has to have certain metadata and certain other information. And as far as the tsunami stations we are looking forward to working and getting those standards. But again, we need to have those certain metadata to incorporate it.

UNIDENTIFIED MALE: Yeah, I think it's not only the tsunami stations, I know the Columbia River too there's a lot of co-located sites where CO-OPS has stations co-located with the Weather Service and if a lot of that could be -- if that could be coordinated you could overcome the metadata issue. I mean that could be another use of using the data -- you know, collect it once, you know, use it for a lot of other resources.

MR. DASLER: Columbia River is another area actually we're working very closely and looking forward to getting that information so we can include it. We actually have a port system in the Columbia River and we're looking to integrate those water level stations as part of ports. Once we get that metadata and those standards we can do that.

MR. ZILKOSKI: On a -- Dave Zilkoski, on a bigger scale that we're looking across all of NOAA for the -- this is part of

the Integrated Ocean Observing System process of integration, interoperability. So what Mike's talking about is all this information needs to be in certain formats and specifics so that we can share the data back and forth. So we're looking at this as not just site by site but overall change the way the process works program by program so that we don't say the Columbia River, we don't say Alaska, it's this is how you do business and at the end of the fiscal year where are you in your process of making these interoperable so that Weather Service, CO-OPS are interop -- just an example, interoperable so that we're changing the way we do business.

UNIDENTIFIED MALE: (Indiscernible - away from microphone) second just to address John's question. A lot of programs in NOAA, more specifically in NOS and to some extent in OAR are -- start out as Congressionally earmarked programs and once they essentially become operational programs after two or three years NOAA generally makes a good faith effort and sometimes, as in the case of the address survey backlog line item is actually successful in convincing OMB to make that a base program. And unfortunately in other programs like PORTS that just doesn't work but that's how Congress started that line item and after several years of trying NOAA was successful in getting that incorporated in. And I think everyone looked at that time charter as essentially part of that contractor line item. So.

UNIDENTIFIED MALE: In the Hydrographic Service

Improvement Act for 2007 I think they have it at $50 million for that contract, for the survey backlog. Just to clarify.

MR. RAINEY: I know Lou wanted to get in, probably need to move to the next session.

DR. LAPINE: Okay. Just a quick thing, follow up to what Andy said about CORS sites. Seven of our sites in South Carolina feed the data hourly to NGS but they also run real time. If you have a cellular phone that's capable of transmitting digital data you can get the data in real time from our servers and with a survey grade receiver that means centimeter accuracy in real time. It's worked so well our DOT is going to help us put in 40 more sites, Dave, all real time which will mean anywhere in the state 24, seven you'll have centimeter level accuracy. SC DOT is going to automate road construction, the antenna will be on the blade of the bulldozer, be driven by a geographic information system in the cab, think about ships now, and they'll actually be able to do everything but the blue stone level grading fully automatic off of this network. So I'm thinking ships coming into Charleston Harbor are coming up the Savannah River, how we can use this same system.

MR. RAINEY: Thanks. All right, Tom, you got the last word on this.

MR. SKINNER: Well -- this is Tom Skinner, this is not the last word in that sense. This is actually something, just a

random question that I was thinking of. And Mike or Dave, I assume a lot of the stations are connected to either bridges or -- is that accurate? I mean on the pil -- on -- what's -- how do they physically -- on the port system how do they physically.....

MR. SZABADOS: Depending on the type of sensor. It could be on a buoy, it could be bottom mounted -- you're talking about water levels or currents or air gap? Different type of sensors, so.

MR. SKINNER: Just generally. I guess I was getting to the funding shortfall and at least in Massachusetts when there's any kind of a project there's always some -- like a highway bridge project there's always some sort of mitigation. I was just thinking should we be thinking along the lines of -- and maybe there's a way to help trying to fund the program whenever there's a bridge reconstruction type of project. Dave and I were talking about the importance of a partnership, if you can get the infrastructure paid for then it's a lot easier to try and theoretically anyway find some local and state partners to actually fund an expanded system.

MR. SZABADOS: Actually that is some of the strategy used by the local partner. Tampa Bay, for example, goes to the county, to the different counties for certain parts of -- and get that support for different parts of the program in -- for different purposes and the end result is the port system though.

So that is a strategy being used.

MR. SKINNER: Okay. Great, thank you.

MR. RAINEY: All right. Well, I'd like to then have Captain Barnum go ahead and continue and just talk about some of the -- just sort of a follow up feedback on our -- some of our previous recommendations then we can keep going with some of the discussions, how they relate back to the program.

CAPTAIN BARNUM: Okay, I'm going to give a update on some of the Hydrographic Surveys' reviews, recommendations. First is the NOS mapping and charting contracting policy expansion strategy. This is a question in '05. The HS Hydrographic Surveys Review Panel was part of this process and the intent was the port was for NOS to work with the private mapping community to develop a strategy for expanding contracting with private entities to minimize duplication and take maximum advantage of private sector capabilities.

The Coast Survey issued a Federal Register Notice for Comments on the existing 1996 contracting policy for surveying and mapping services. Comments were received generally supportive of the existing policy and NOAA's implementation of it with some suggestions for improvement. The Coast Survey consulted at meetings again, such as the HSRP, factoring both panel recommendations and public comments. The draft policy was submitted again for a second time in the Federal Register and then the -- and responses incorporated and finally published in

the final policy.

Next slide. These recommendations of NOAA continued use and mix of in house resources -- of in house resources and contract resources for hydrographic services. NOAA should continue to work collaboratively with private sector and NOAA should maintain its necessary core operational expertise. These are all worked into the contract policy. And we will continue to closely monitor costs and performance.

Next slide. Mapping and charting, again on the contract policy. These recommendations are still a work in progress. That NOAA should use its operational expertise to define and defend resources, NOAA should complete its NOAA fleet analysis of alternatives and NOAA should determine the optimal resource allocation between in house and contracting resources. One hydrographic program, managing NOAA's collection of hydro data using in house and the contract assets has been tagged as a NOAA major project. So within the NOAA the NOAA hydro -- major hydro project is one of the 13 major projects which are being overseen by NOAA's senior leadership. This entails developing a strong justification for total required program, the 100 percent requirement and the requirements PPBES process, the lingo, with the current program monthly reporting on cost schedule and performance data. The designation as a major project requires management approval at key decision points which for the major hydro project means following a chain of steps to identify

resources needed for core capability and optimal resource allocation to get NOAA buy in on the end result. The management team working on the project is using a goal of 10,000 square nautical miles each year as a desired end state. Right now we do about 3,000 square nautical miles. This puts the 500 square nautical miles of the U.S. EEZ on a 50 year resurvey cycle.

Next slide. On the HSRP recommendation that core hydrographic services capability should include, but is not limited to, the technical staff with the highest level of expertise to perform and advise NOAA's in house of hydrographic, services a national system of geodetic control, water level and current monitoring stations for real time physical and oceanographic information, a National Integrated Ocean Observing System, coordinated research and development and legal and contracting staff experienced in contracting hydrographic services. We concur with this recommendation. It is broader than the major hydro project that I just discussed but covers all our navigation services components. It's also important to note that the suite of observations is and will be part of the National Integrated Ocean Observation System.

Next slide. NOAA should seek additional funding for contractual services to reduce the backlog of critical and high priority hydrographic surveying needs. From our program perspective we definitely concur with this recommendation. Our out year budgets do include additional funding for contracts,

but as you understand from this morning's discussion on PPBES what ends up on our final budget request each year is likely not NOAA's preferred budget. There's several hurdles that NOAA has to through before the final budget arrives at the Congress. We will continue to put our energy in increasing funds for surveying and related activities to narrow the gap.

Next slide. Hydrographic survey cost analysis. Insufficient funds, staffing to conduct the cost analysis as proposed in May 2005. The new proposal to conduct abbreviated annual cost analysis beginning in '05. Basically the work -- the recommendation from the HSRP from 2005 was to define a detailed analysis going back to 1998, over 500 surveys to be looked at. It turned out to be a lot bigger job than we could -- and required much more information than we could capture to come up with a comparison. So what we are offering is to go back, we want to collect from day forward from '05 and '06 and day forward to describe 10 geographic regions, collect for data acquisition only and capture the fully loaded cost of which we can then compare and make the decision of what's the most efficient mix of in house and outsource resources.

We were -- the purporting units will cost per square nautical mile and per linear mile of hydrography and will again include all direct and indirect costs. The cost for in house surveys will include salaries and benefits including retirement for all personnel, travel, repairs, contract supplies and

equipment. Survey techniques used to conduct the survey will be included in the data as well as general descriptions of the project area.

So we're proposing that we look at 10 different area that capture 10 different levels of complexity that range from the Atlantic Coast, which is generally over the north of Long Island, generally rocky rugged; Atlantic Coast south of Long Island, generally sandy; Gulf of Mexico, sandy sloping sea floor; west coast, Alaska which has a variety of challenges which range from generally steep deep seafloor with somewhat protective waters to generally rocky coast and seafloor shallow areas; Cook Inlet, such as here in Alaska which is relatively shallow muddy bottom with high currents. So looking at 10 different areas around the country that can better capture the various scales and level of complexity of hydrographic surveys of which we can then compare the cost analysis.

Next slide. And I'll turn it over to Dave for the IOOS.

MR. ZILKOSKI: (Indiscernible - away from microphone). That's better, sorry. There's some recommendations made about IOOS and so I'd just summarize the top -- further development, expansion of observing programs and other uses for IOOS. But on your handout it has -- the bottom part gives the full description of it. But NOAA supports the expansion of the relative programs and you've been hearing with Steve and Mike and myself talk about that already. NOAA also will work with

other agencies through what's called the Interagency Working Group on Ocean Observations, better known as IWGOO. But to address the navigation needs there's a lot of other agencies on there so we're trying to lead the way and work with him. And we'll work with Ocean.US, the National Federal of Regional Associations as well as the individual regional associations to augment mechanisms to obtain specific regional requirements. There's a lot of Integrated Ocean Observing System going on and we're trying to work with the agencies, both federal, state and local, to be able to optimize how it's used in the navigation community.

Next slide please. There was another recommendation for providing sufficient funding for IOOS to support navigational needs and -- mention water levels and wind, direct speed, vertical clearances, et cetera. We're developing a life cycle estimate for IOOS that will address the maritime operations. It's all of the societal goals, it's not just maritime but we can't look at it individually but we are looking at the entire IOOS conceptual design. We have two contractors that we have hired to give us recommendations and -- which are due at the end of this month so the end of next month we will have a plan ahead of how we're -- and what that means in terms of the actual cost and how we would work through it. We're also coordinating with Ocean.US and the integrated working group, ocean obs agencies also because they are part of this process. Because IOOS is not

just NOAA, IOOS is the Interagency Working Group, our interagency set of -- group. NOAA's IOOS plans will continue to support the funding for critical navigation services as they have in the past and they are mentioned and they are highlighted whenever we get together with Ocean.US as well as the agencies.

Next slide please. The third recommendation dealt with development of a national IOOS development plan and supporting NOAA as the lead agency. NOAA has been named the lead of the Interagency Working Group on Ocean Obs, IWGOO, so we will take that role very seriously. We provided input into the IOOS development plan and every year or every two years that's updated so we are always working with the other agencies and the outside world to be able to get NOAA's mission through to -- needs and requirements to those which includes a lot of the navigation obviously. Through the Interagency Working Group we will continue to coordinate with the other agencies and the fact that we have been named the lead of that group is helpful because it will allow us to be able to chair the meeting with bringing them the group -- help them with the agenda but working and moving things forward, trying to still get consensus but we're able to be able to move it forward. That's a good thing.

The Senate mark, as you saw, requests -- of the programs requests some IOOS strategic plan. That's something that once it goes to conference we're not sure where we'll stand because the House didn't say much about IOOS at all. But we will --

inside NOAA we'll be looking for trying to do these type of actions that the Senate's asked us to do regardless if it's officially documented that we have to do it or not. We're pursuing that road anyways assuming that we're going to have to do it but we'll -- we need to work and built a strategic plan and implementation plan so we can move forward.

And NOAA supports the funding for the IOOS systems through our NOAA goals and program structure. And I think you've heard a lot from Steve on that, you've seen some stuff that Mike has put up about the programs and myself. So we're part of the goal structure as well as part of the program structure. All of these programs are listed and pushed through that. And IOOS tries to highlight those issues when asked. And in our process we will have this opportunity in the near future to discuss this with the program planning integration staff of what are -- what do we think are important in terms of IOOS. I think that's it. Yeah.

MR. RAINEY: Okay, thanks very much. I really on -- you know, on behalf of the whole panel like to really thank you for putting that together. I mean I think that's a wonderful chance to get feedback on our recommendations, you know, some of them as we pass them up and just to -- to know kind of how they're received and what your thoughts are regarding our advice. Can I open it up then if folks have questions about that or if we -- any other questions or comments on that presentation?

Okay. All right. Well, let's -- what I'd like to do then is propose we go ahead and take our break and I -- before we break I'd like to -- we wanted to make sure we had time for public comment and so we've scheduled several times. If -- when we come back if folks have some -- if anyone would like to make some public comments we'd very much appreciate it. We've got a panel scheduled tomorrow and some time today. So if you could let me know or sign up and indicate when we reconvene then we'll open it up if there's some public comments and then we'll keep proceeding with the meeting on some other presentations. So let's take a -- say a 10 minute break. Thanks.

(Off record at 2:37 p.m.)

(On record at 3:04 p.m.)

CAPTAIN BARNUM: Welcome back everybody. We're going to continue with our agenda. Next on the list is public comment. This is the opportunity for the public to come and speak to the panel. I ask the folks that come up to please state your name and the organization for the record. We -- in an effort to reach out to all our constituencies we moved the location of the Hydrographic Services Review Panel to different physical or geographic locations around the country and this opportunity is for Alaska. So, again, we're pleased to be here and look forward to hearing from -- the comments from the public. So with that if we have any folks in the public who'd like to come forward do so at this time.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

CAPTAIN PAWLOWSKI: Good day, I'm Captain Bob Pawlowski, NOAA retired and a member of the Nautical Institute. At this time I'll -- today I'll be speaking on behalf of my position with the University of Alaska, Anchorage as an adjunct professor of hydrographic surveying and coastal measurement and analysis in the School of Engineering. And I would like to talk about hydrographic surveying and the importance of having an Alaska based education program in training hands for going into the hydrographic surveying industry.

It was really nice to see John Rayfield make his comments. I was the navigation advisor up here in '96 to '99 during the time when the Hydrographic Services Improvement Act came through. And one of the things John looked out as well as Don Young's special assistant, Bill Sharrow, and said and we are going to train Alaskans. And to that end John Oswald and Tom Newman and Larry and myself and Orson Smith over at the University all got together and we created a one semester program to try to simply develop hands that we could put through. It's a -- was a 490 level course, it's continued on. But what it -- it was also joined as I retired out and became the senior instructor or the professor of record, was also joined on by Doug Baird, Commander Baird, and by Jennifer Dowling in bringing in the continuation of what NOAA was doing

both in the hydrographic side but also in the geodetic control side. It was also -- the last part was also joined in throughout -- with the U.S. Army Corps of Engineers, Andrew Brewer, to bring in specifically the cost estimating side and the understanding of what is in chapter 22 of the hydro engineering manual, Brooks Act, IDIQ, all of these details that are fundamental in training people to go and work in the hydrographic field.

As the members of the panel can appreciate, the demands for hydrography and hydrographic surveying and hydrographic services in Alaska Range from coastal construction and erosion mitigation through navigation projects and nautical charting to surveying the seabed for marine habitat, habitat areas, particular concern marine protected areas, et cetera, lots of stuff in line. What we try to do in this course is simply provide the students with an online, in class lectures and field opportunities so they really understand what the language is, the terminology, what the expectations are and, more importantly, what information is already available online so they can pre-plan a survey. This is where a lot of advancements has come up with ENC's, putting digital datasets whether they're through the Corps of Engineers, whether they're through NOAA and NODC, local community as-built or digital ortho photoquads, road diagrams. It enables them to bring it all together and pre-assess what the area looks like as a survey and what the present

condition of the survey is. Modern geomantics tools and GIS tools allow them to spin it, to do cross sections, et cetera. But the important thing is it takes them on one side through data mining so they understand a survey but on the other side it takes them into actually knowing the terminology, the standards, quality control and total propagated error.

I wanted to really follow on what John Rayfield said on the importance of bringing the Corps of Engineers together with NOAA, with IHO, trying to -- and USGS, trying to get one setup here. A student taking a serious look at hydro is going to pull down about 350 megs of PDF's and manuals. When -- this here I'm expanding it up to add the IHO manual 13 but when you take the Army Corps of Engineers hydro engineering manual, you want to go into special sides off of that you can add the coastal engineering manual, you take all of the stuff that is available and critical control and for GPS and controls stations comes in, when you bring in tides and all of the tide modeling and data, you bring in the practical chart, you start really putting into a lot of information out there. When you teach the students you realize you take them from fresh water, seasonal levels through locks, very tight centimeter construction level surveying down into the coastal plus or minus five meters plus five percent, bring them throughout the different standards. It's a whole progression that they have to learn how to quality control it. Any steps that can go to bring a consistency between the

different agencies is going to help us who are training students to try to bring them out in the field so when they go to NOAA to do hydrography they understand NOAA, when they go to the Corps of Engineers to do hydrography they understand there may be a totally different set of standards, particularly in construction.

I asked the HSRP to actually look at opportunities to -- for further collaboration between the University of Alaska and its schools and the different schools teaching hydrography or having research projects available in hydrographic surveying and hydrographic services. I presently work for a nonprofit foundation so I look at the NOAA grants in detail. I can assure you that there was almost nothing available in preparing hydrographers to work in the field through training under the present grants program, something that would be very helpful and it's very difficult for a small university to start up a program, but is doing it. We have -- because of affiliations with the industry we have a very good survey lab that Trimble has supported. We branched in and have a photogrammetry lab that aerometric has supported. We turn around and I'm asking to look and see what we can do to build up a hydrographic services lab that would be conjunction between the industry that's addressing the backlog up here and NOAA as an opportunity.

That's basically it for looking at the University. I want to follow on, as a last part, I also serve as an advisor to the

maritime and fishery program at the Alaska Vocational Technical Center. The program offers U.S. Coast Guard licensing and on behalf of the Department of Labor. In Seward they have a four pilot house full mission marine simulator ranging from the ability to have bridge resource management to multiple person pilot house to single person pilot houses, various sizes. This kind of test bed is available to do the challenges and meet the challenges that Bill Gray was talking about in working with ENC's, working with ECDIS and bringing it together. I think it's very important as we look at licensing mariners and being a master myself I really appreciate having the ability to put people using the modern technologies in a stressful situation and seeing how they react when they are in charge of a bridge watch, when they have the house to themselves, et cetera. One pilot house will give you a very good simulation of how to work with the tools. Four pilot houses interacting will give you a very good example of what is the confusing facts that are going on with the systems. I share it because as a member of the Nautical Institute if you go through seaways you will see there is a constant question going on of how as a master can I insure that the people know what are these new tools and what are the positives about them and what are the negatives about them.

So with that I thank you for coming to Alaska. I appreciate your efforts in understanding not just what we need in hydrographic services but also how we can -- what we really

need in getting the hands into this field that up until a decade ago was a very, very narrow field of job opportunities. It's greatly improved and it's greatly improved because of the Hydrographic Services Act, it's greatly improved because of the industry and the public represented here. If I can answer any questions. Thank you.

UNIDENTIFIED MALE: Adam McBride.

MR. MCBRIDE: Thank you. I just have a question concerning -- and Andy, you probably know this as well, but where can students in the United States take a course in hydrographic services, where would one undertake that course of study?

CAPTAIN PAWLOWSKI: You can take a full course of study down in the University of Southern Mississippi, I believe Florida Institute has.....

UNIDENTIFIED MALE: Not a full course.

CAPTAIN PAWLOWSKI: Not a full course. I know of very few courses in it. I have worked very hard to just try to pull it into a one semester which is welcome to a fire hose. You know, but I mean that's just kind of part of it. But they at least leave knowing where the technical manuals are and the questions they should be asking when they go into the field. So.....

MR. MCBRIDE: Well, then perhaps I could ask Larry. I mean from the private sector point of view where do you find the folks that -- I mean is this all OJT that teaches you the job?

MR. WHITING: I think that's probably where we all learned it. I used a lot of those students and I think that Tom and - or TerraSond still use a lot of the students that are going through this course. There's -- probably the backbone of our surveyors have gone through that course now. And it helps but it's only a start, they -- and it's OJT, you know, like he said. And I don't know if the University of New Brunswick has a complete course, I don't know. Some of the gals -- one of the gals that worked for us for awhile went on to England to get her masters degree in hydrography. So it starts there but it sure doesn't end there.

MR. OSWALD: I'll just -- a point of contact from -- point of reference from the private sector. We've been hiring people out of the -- there's two universities in this town, private university APU. I've had a very successful employee from there with a natural science, they've basically got the science part and they did the on the job training, got excited, he's headed to Andy's shop here this week to pursue a masters in ocean mapping. I'm actually going to branch out instead of recruiting from surveying schools and the natural science, start looking at the broader picture, the oceanography institutes in this country. So that's what -- there is no core, you don't get a hydrographic surveying undergraduate degree in this -- other countries you do.

CAPTAIN ARMSTRONG: Yeah, Andy Armstrong. I just -- just

for a summary of the training that's available. As Bob said, the University of Southern Mississippi has a masters degree program in hydrographic sciences. University of New Hampshire has a master program in ocean mapping which is essentially the same thing, just different names. Bob has the course in -- at University of Alaska here, there are a couple courses at Florida Institute of Technology and that's it in the United States. The University of New Brunswick in Canada and -- there's a -- there's some vocational training in Quebec but there's very little and really none at the undergraduate level.

CAPTAIN HICKMAN: (Indiscernible - away from microphone).

MR. PAWLOWSKI: The simulator is down in Seward at the Alaska Vocational Technical Center. And it's under the Department of Labor.

MR. DASLER: Bob, I just -- I think it's great that you guys were able to get a program started up here. I mean as -- I guess it's quite obvious that there's a real need in the United States for programs like this and getting an undergraduate program going. And I think whatever the Hydrographic Services Review Panel can do to help support this. I mean even NOAA too, I mean a lot of their people it's on the job training, get them out of the sciences programs and that kind of thing. But there's a real need in the nation for programs like that and support of those kind of programs and I think we'll do what we can to offer the support to get a program like that running. I

think you're going to be hard pressed though to try to get all of the agencies to agree on levels of accuracies and that kind of thing and then they're probably going to have to keep drinking from the hose.

MR. PAWLOWSKI: Well, but it's nice the agencies -- thank you, Jon. It's nice the agencies have stepped forward to at least put all their standards online, all their technical manuals online, it's very easy for -- to lead the students through. As for support, we really appreciated the opportunity to meet with Captain Barnum and Commander Glang and Jerry Mills on Friday in D.C. to specifically talk about what was going on and what were some of the softwares and other things that are needed to keep a successful course because this is a growing industry, we want to see hands go into it and we want to see hands come out of the course and go through Jon's work, to go to Andy's school and to see them go into Larry's shop to go out in the field, to come -- as TJ does to come back to my class to teach cerus. These are all interactive things that are the ground breaking stuff. Thank you very much.

UNIDENTIFIED MALE: Thank you.

MS. LAHAY (PH): Hello, Jonna LaHay (ph) with Fugro Palagros (ph). As we're speaking about education one thing that I did want to bring up is that the hydrographic -- I'm here representing myself and also the Hydrographic Society of America. I'm the student outreach coordinator for that society

and in 2003 we began an outreach to undergraduate students to educate them about hydrography, the field. We bring students to the annual con -- well, biannual conference and what we do is we set them up with a conference registration and we provide housing for them. The University of New Hampshire and University of Southern Mississippi sponsor a student luncheon where they learn about hydrography, the basics of hydrography, just a general overview. They learn about opportunities for employment with NOAA, with the U.S. Corps -- Army Corps of Engineers and with NAVO and they also learn about -- they're able to interact with some corporate sponsors that we have. And this is something that we've done -- we did it -- 2003 we had three students, we did it again in 2005 and had 10 students and we're planning on doing it again in 2007. It's something that the Hydrographic Society of America has supported and it's something that we plan on continuing to pursue to involve students who are in geodetics and geomatics and surveying and engineering. Because like they said, there aren't any hydrography education programs in the undergraduate level so we're trying to reach out to let students know that there are opportunities out there, this is a field that you can get a job in and it's a very exciting field. And that's just basically what I wanted to say since we were discussing education.

MR. RAINEY: Any questions?

MS. LAHAY (PH): Thank you.

MR. RAINEY: Thanks for that. We had a opportunity to meet in San Diego, kind of a piggyback in conjunction with that, and I -- and Jon, is that -- we had some discussions in San Diego. Aren't you working on -- is what you're involved with in some of the certification and things, is that through HSOA or.....

MR. DASLER: Yeah. Well, ACSM has a program for certifying.....

MR. RAINEY: Okay.

MR. DASLER: .....hydrographers but it's still not an education process. They have like some seminars and there's some education, some of the funding comes from the Hydrographic Society of America. But the need for the education is -- I mean it's -- a lot of the people -- I mean we've hired people out of geomatics kind of the same -- like John was talking about, you have to get them out of geomatics programs or out of University of New Brunswick. I mean it's just really hard to find anybody. And the ACSM program is really trying to -- is more just for certification and not education. But there's just a really strong need for that in the U.S.

MR. RAINEY: Okay, thanks.

MR. VOSE: Good afternoon, my name is Larry Vose, I'm with the Southeast Alaska Pilots Association, one of 41 pilots working down in Southeast. And I just wanted to take a couple minutes, number one, to say how much we really appreciate the

end products that are put out by all the folks that are involved here. Number one, we use them daily, we rely on them daily, we don't take them for granted and -- so, number one, just to say thank you for that. Number two, I wanted to echo the sentiments that were being discussed with regards to the ENC's, particularly with the training issues and not getting too far ahead of ourselves and rolling those things out. I see it every day with the technology on the ships and the lack of understanding of how some of that technology works. And inevitably the law of unattended consequences and how it leads to technology, assisted accidents and near misses and so forth. And so I just wanted to take this moment to really echo that -- the opinions that were expressed earlier. The Southeast Alaska Pilots, we moved about 35 million gross tons of passenger shipping last year in Southeast over about 291,000 miles of southeast waterway in addition to the over a million gross tons of cargo and we -- our primary business is the cruise lines and increasingly we see a higher turnover of personnel in that industry and with that then comes an additional training requirement and there is a huge reliance on technology in -- not to pick on that industry, but increasingly with the shipping industry and these electronic charts are just one more aspect of that that I think we have to be careful about. And if the Coast Guard is going to mandate carriage requirements I think maybe also we ought to look at requiring the Coast Guard to mandate

requirements within the licensing process as well. Having been a former owner of a marine training and education business and taught Coast Guard licensing I used to always say that if the Coast Guard was regulating interstate trucking the first thing they'd have you do is shoe a horse, you know, to get back to the basics. And it's progressed some but -- and I'm also retired Coast Guard, so it's fair for me to say that, maybe. But it is important that we not let this get too far ahead of itself and I guess that was my primary point that I've probably beaten to death.

Other than that we have some priorities in Southeast for current analysis and charting and so forth that we'll -- we will coordinate through Dave ZeZula up here in Anchorage and also with a waterway forum that we have in Southeast called the Marine Safety Taskforce of which NOAA is a participant and it works very well. Other than that I won't be able to attend tomorrow because I'm flying down to Ketchikan for a 2:45 a.m. pilot boat to get on the Norwegian Wind. So other than that, unless you have any questions. Thank you.

MR. RAINEY: Thank you. Anyone else? Okay. There'll be an additional opportunity at 5:00 o'clock for public comment and than again tomorrow. With that turn.....

CAPTAIN BARNUM: Just -- also just so -- I think everybody's aware also but even before the meeting we got written comments submitted by Tenix and so -- just so

everybody's aware of that and that's in our materials so I just wanted to make -- acknowledge that, received that as well.

MR. RAINEY: Dave, if we can then we'll toss the baton to you.

MR. ZILKOSKI: Okay. Yeah, thanks. What we'll do now is I'll run through a series of -- give me the next slide, slides to talk a little bit about what the National Geodetic Survey does. I think that around the table and the room that the people have some idea about it but I think there's a lot of things that -- little things that may come out that may be helpful in your report finding and why the discussions earlier today I might say that I think geodesy plays a role as the foundation through a lot of the navigation community and maybe this will help this or at least will allow you to be able to ask me questions of what I mean maybe not today but down the road. Because I'm really trying to get the Review Panel to be able to help me move forward to show what geodesy should be doing as a program.

I'm going to touch on precise positioning and then talk a little bit about timely height information and I distinguished the two of those and that's normally not really looked at positioning. Height is a position but most people don't see it that way. But it's a three dimensional -- when we talk about precise positioning today people don't associate the height with it. So I'm going to talk a little bit about why that is.

We talked about our shoreline which you probably are familiar with and know very well. Some emerging technologies that we are pursuing and have pursued in the past and where I don't see -- you know, there was -- we tried to get the navigation community engaged in some of these new technologies and we didn't receive any and I'm not sure it should be pursued or not. So some guidance that you may want to give down and maybe some future challenges.

Next one. This is a little slide about a person with GPS in a car and there's a big -- in case you can't see it there's a big truck coming. Says that the -- yep, got my cell phone, my pager, my internet link, my wireless fax and thanks to this nifty satellite navigating system I know precisely where I am at all times and he's about to get run over by a truck. Geodesy is about knowing where you are but you have to know where other things are around you safely and efficiently. That's how you come together so we provide that foundation. And there was something else that Steve put in there originally, it says make appropriate decisions for safe, secure, efficient and environmentally sound transportation network. And this is more than just shipping, it's about the land, air and sea. But geodesy is about providing that framework so that you know where you are but also where other things are around you so you can relate them.

Next one please. I talked a little bit about our CORS and

you've already seen it earlier on and that we're up to the 900 and some CORS and the way Lou said, we're adding more, we'll be up to 1,000 pretty shortly. And this is a cooperative program that it's critical to both land and ocean observing systems and we -- it's a partnership program that I believe is a good model for other people to look at for trying to obtain good partners, good support in building a system that's not totally federally owned or operated but it is managed by us and it's a partnership and we give some service and then the local entities give some service and then the total between the two is greater than what we individually could have done. So it's really building great synergies. And it's more than just positioning, it does -- as I mentioned earlier, it's useful to the weather people about atmospheric water vapor and is improving the weather predictions. We're talking about putting GPS CORS out on oil platforms in the Gulf so that they're able to get better information about the water vapor that goes on prior to hurricanes to help in their reporting of their track. They know where the -- the hurricane's coming, they know the strength and they -- a lot of that stuff has to do with the water temperature and so forth. But the actual track of it is they can improve the process and GPS is going to allow us to do that.

Next one please. We have listened to our partners, they -- we built the system of GPS CORS which we collect the data. We put it down -- out on the web and had people that could turn

around and process the data and we had guidelines and procedures and manuals and we've created a lot of them and I'm sure we're part of what Bob was talking about of all those gigabytes of standards. And we have our unique set of high accuracy standards. But we also did something we called an online positioning user service. We had people that were using the data and not really tying to our network the proper way, they were producing coordinates that were inconsistent with the surrounding coordinates because they didn't fully understand what it was about. So they talked to us to say that, well, if we give you our data can you compute a coordinate. So we automated the process and allowed them to go off and they collect the information, sit at a station, provide us some metadata, submit it through the internet and then they get back an e-mail with their values and it's consistent and if two people do it near each other they will at least be consistent. So that's we called our OPUS.

Next one please. Height information. OPUS does give you a latitude and longitude and a height, it actually gives you a couple heights. Gives you an ellipse side height and a orthometric height. And most people when they talk about height information are talking about which way water will flow or the depths of it and they want the -- want everything, the systems in orthometric height. Now we do and have in the past provided information about -- from a navigation air gap information,

positioning of bridges, under keel clearance, actual accurate docking charts such that you're able to as long as you're in the same system dock a vehicle through -- a ship through the fog and as long as you know where other things are around you and so forth. So these are some of the activities that we've brought to -- talking about safe navigation and it's just part of our process.

Next one please. The other aspect of that is just right after the land you have coastal inundation and you've got evacuations and this is something that we were working in Louisiana. And by the way, we were doing this prior to Katrina and Rita. We actually -- we're in building our process several years prior to the hurricanes coming in so that when they did we actually had a framework in place and some evacuation routes already computed six months -- actually it started a year, but six months prior to the hurricane coming. It wasn't complete in terms of the process of the education but we did have in place what the evacuation, what the subsidence rates, what was going on. So anybody that was down in the southern part on the southeast of Louisiana knew exactly what -- when they started talking about those storm surge and the values, the locals knew that this was trouble and they knew that they were going to be inundated and they knew when to get out. Now, Hurricane Katrina and Rita, when you have huge storm surge it doesn't really make much difference of a few centimeters or even a foot. It was

going to have this kind of activity going on anyways. But the key is in normal times even storms in places like southern Louisiana and at the ports having very accurate elevation models relative to the local bathometry as well as the topography. Being able to bring that together is critical from both the shipping industry but probably more important to the coastal managers and I think that's where the bridge is. You heard the term Vdatum, that's a vertical datum transformation program where we try to make it as simple for people to be able to take one set of data, put it into this program and out comes the other set of data in the format that they need it. Once again, making sure that people were working consistently. But geodesy besides bringing the height component to the shipping industry talks about flood plain mapping, subsidence, hazard mitigation, evacuation planning and if you co-locate GPS at tide gauges you can actually start measuring what sea level rise is really doing, measuring the effect. It can't tell you why it's doing it. It can tell you though based on those tide gauges if it's rising or settling. And by the way, in Alaska because you have uplift you actually have the sea level going down in places here. It is not rising in Alaska. Now, does that mean the sea level is not -- the water level is not really rising in Alaska? I think if it's rising anywhere it's rising everywhere. The question is though you got the land uplifting in Alaska so it looks like it's not rising. It's uplifting faster than the

water is rising. The point is that what geodesy brings is a way to measure that value.

Next one. Vdatum, this is where you really take, as it says, disparate data and GIS and other applications and bring them together. You have a lot of people that deal with water level information and they have that in -- all their data and water level information. You have other people that deal with geodetic vertical datums, North American vertical datum of 1988. This program allows you to in certain areas that when you build the models to be able to input NAVD88 heights and get water level information out and put water level information and NAVD88. So as long as you know what your data are and how they are referenced you're able to translate it into some other reference. Once again, consistencies, trying to keep people on the same page, making thing mesh together, integrating. This is -- making things interoperable so that they can be truly integrated later on. Geodesy brings that.

Next one please. The shoreline, you've heard a lot about that in the past and you've seen some of it here in pictures and we did a lot in terms of the hurricane response and I talked about our status earlier. But that is our mission and it is in NGS and Mike Aslaskan is in charge of it and he's back of the room, if you have some specific questions you can talk to Mike later on about this. But we are -- we're looking at the changes. The shoreline's constantly changing and ports and

harbors are always changing. You know that more than most people. So our program is trying to how can we efficiently and effectively do that, trying to develop new tools, trying to be able to keep up with what the rest of the hydrographic survey community is doing. You have a backlog survey that you're funding and putting in and trying to really create in a very timely manner. Well, shoreline should be part of that and I think that there's a -- the committee should be looking at how do I really think when I think about separating shoreline and the hydrographic survey backlog. In your backlog -- you got a shoreline imagery backlog too but it's never mentioned and it's hard to link them together. So I think there may be something there that you may want to look at and try to pursue, the actual inequalities of trying to say, well, I'm just going to collect the hydrographic survey information. Well, if you don't collect the rest of the information are you really got a good product. So you look at it from an end to end. And I understand the backlog of -- the survey backlog is important and it has a lot of needs and the private sector is producing it but the shoreline aspect of it should also be considered.

Next one please. Now there's a lot of -- this chart's hard to read but there's a lot of different values when you do the shoreline. It was mentioned earlier that different federal agencies have different use of shorelines, I think John might have mentioned it. There are reasons for everybody having their

value of what they call a shoreline. I think the Vdatum tool is probably the answer to being able to relate those two -- those datums and infor -- or not those datums but those relationships between those different shorelines. One is a national shore, recognized. Other ones like on the USGS chart which is the zero line for either the vertical datum, the NGBD or the vertical -- other vertical NAVD88, but there's a relationship between what the USGS contour is that they call zero and our official shoreline that comes out that's on the chart as well as when someone else does and use a chart. There's a relationship and that's what Vdatum brings. But each agency has their reason and their reference for what they were using it for. And each state has their relationship to some of those, some of it's to the shoreline, maybe some of it's to the mean lower water, mean high water, they all have their reference. And I think the thing we should focus on is how we make sure that they're related, are they interoperable, are they integrated and do you make the tool, like Vdatum, that allows you to be able to say I have this shoreline value for what it is and I want to get out this other value from it and you pump -- what you pump in you get out and you can ask that question. If we can do that then these federal agencies have certain missions that they are responsible for and they can continue meeting their missions but then we can integrate their activities with ours. And we have been, USGS before they would have ever put a value on their contour maps

used our control to be able to relate them to them, as well as using ours. So we know the relationships, we just have to put it into a system like Vdatum.

Next one please. We put out what we call a shoreline data explorer because there are many different accuracies of shoreline, different values, different levels. This data shore explorer is trying to provide with metadata all of these different shorelines that we have, where they are and how useful they are. In some places there's more up to date information that may not be as accurate but it is just as good because it's more up to date. We're trying to put a web tool to be able to put out to the users so they're able to download the information, mix the information if they want to. Some -- a tool probably most useful to a lot of the coastal managers that are out there trying to build a product so that's something else we were trying to put together.

Next one please. You've already heard about this, we do meet with the top priority port areas and the ranking factors are the cargo tonnage, commercial fishing and military ports. It's based on what the Coast Survey and you heard about that earlier.

Next one. We use satellite information, we use many different tools to be able to -- to try to determine where do we need to do the change. There is so much shoreline out there, there are so many places that need to be updated with so many

limited resources that we try to utilize as much information as we can and in some cases commercial satellite information will permit us to update a chart without even going in there with more detail and we do it. Other times it tells us where we really do need to focus and then we do a special mission with a certain -- either with our own photography or with LIDAR to be able to create the map. But it allows us to look at these and try to prioritize them in the most efficient manner that we can because we do have limited resources.

Next one please. This is just one example of using the high resolution from IKONOS to show in -- the changing things in Portland, Oregon and so forth, but just one of the ways we do it.

Next one. This -- in December of 1996, and actually I was personally involved in this project. We were trying to start with using the GPS for positioning in their height component and we worked with the Coast Guard on one of their buoy tenders in some of industry and we positioned this ship, we put GPS on the ship to -- proof of concept of showing that we could actually position a ship to better than 10 centimeters and that's to the keel. We knew where that ship was relative to the bottom of the channel to about 10 centimeters. As it pitched and rolled and moved we knew it, everything -- we could do that with the thing. Now that required not one receiver, it required -- we had put four on there, we didn't need four, we had redundancy. But we

did this test back in there just to be able to show that we could do it, to learn from it, to try to prove the concept and to work with other industry to find out what they would like us to do. We actually worked with some container ships to put (indiscernible) container and from Long Beach up to Oakland positioned a ship in and out of both of the harbors and showed how it would work and that we could do this. And then it was -- did not get picked up and really be -- want to be pursued by anybody so we have continued our kinematic positioning and so forth but more focused in the air and on land because the shipping industry was not as interested in it.

Next slide please. At the same time that we were doing it from the positioning of the ship saying we could do this from the under keel clearance perspective as well as its location of knowing itself to 10 centimeters, we also showed that we could do docking charts to that same level so that they could be married together and that you could actually take a ship, come in and dock it to that 10 centimeter level that if you needed to, but more important that you would be able to gain some efficiencies about coming in and out of the harbor. So we've demonstrated that.

Next one. Vertical currencies and GPS, we positioned bridges and using GPS as long as -- as well as with air gap technology, working with CO-OPS, Mike's group, and did this, once again, several years ago, trying to show that you could use

GPS to be able to accurately position some of these bridges. And this bridge is -- was in South Carolina, the Cooper River bridge, this was the newer bridge, we positioned the older one, and it was a discussion about the bridge -- a ship hit the bridge and they said that they thought that the -- it was marked on the chart wrong and so they came in and wanted to make sure that it was. And so we showed that it wasn't but we also showed how you could use new technology at a much faster, cheaper, better and be able to bring it in.

Next one. GPS on buoys. We have been installing GPS on buoys for awhile and demonstration projects in San Francisco, we had it running for a long time measuring it with the water levels and integrating it into our system of working, once again, of trying to understand the needs and where and what people wanted. Buoys get hit as you well know and so many times as a buoy gets hit and bounced around some of our equipment gets lost and we actually still have an antenna at the bottom of Chesapeake Bay but it's probably cheaper just to buy another one than to keep trying to figure out how to harden some of these things because they're relatively cheap. But this is something that we're -- we believe has some merit and can be very useful in using it and we're trying to pursue it and looking for guidance on what people would think. I was just recently -- I guess it was a week and a half ago now, I was at NOAA's NDBC shop at Stennis looking at a lot of their buoys and what they

have and tsunami buoys as well as some of their other buoys they have out in the Pacific and out on the equator and the tropics, looking at, well, what -- how can we outfit and look at it from a positioning standpoint and waves. It's not just GPS you put on these things, there are other instruments, tilt meters and so forth, that you put on to be able to give you waves out there, to give you information about -- potentially information about surface currents. If you integrate several buoys and they're moving across your harbor and they're moving in different directions. You can get information about what the currents happening -- coming in and out of a harbor. Obviously they don't do much about the subsurface ways but first -- you could potentially incorporate the GPS buoy with some other devices on the bottom.

Next one please. We did develop what we call a shallow water positioning system and been working with -- in Florida where we've done the same type of idea. It's basically starting with a GPS buoy if you will, it's sitting on a floating platform and it now can be hooked up to a boat where it actually positions the bottom of wherever you're looking in the coral reefs and sea grass they're -- you're looking at -- and damage assessments, they're looking at being able to determine exactly what has happened in an area and we can do the same thing as positioning a ship and a keel to 10 centimeters, we're doing the same thing for people looking at the bottom of an estuary to

really find out what's happening, how fast is this sea grass growing. Or if Carl -- if something happened, is it dying, we can look at it, you can go back to the same place and be able to determine it. And if a ship does some damage are you able to go back in and really from a standpoint of damage assessment you determine what the damage was before and after. So we've been working with a lot of people dealing with the positioning and we are trying to look at how do we actually do positioning underwater where we're on the surface but being able to take and extrapolate down below the surface and we're looking at that.

As part of our shoreline analysis and trying to find out what elevations are relative to the land, sea interface, we developed a dune buggy equipped GPS to be able to work with our LIDAR system as well as satellites to be able to incorporate them much more quickly. It's cheaper to run along a beach on a dune buggy than it is to do a full blown survey if you can -- you can then take the other data and bring them together and integrate them.

Next one. Linking technology and leveraging the resources we mentioned. I mentioned about co-locating CORS, GPS CORS with the water level stations helps with subsidence and does with sea level rise, gives us a better understanding of what's happening in the area let alone the positioning aspects of it from there. But that's something that we are pursuing.

Next one. I mentioned it already, the subsidence. It's a

very small amount but along the coast if something's moving at one or two millimeters a year it's very critical to a coastal area that only has a few centimeters elevation prior to the water coming in. And measuring something to a millimeter to a year is not that easy, it takes time, it's difficult, a very small number. So you have to use something that's very, very accurate and you need to look at it from a long term perspective. It's not something you just go out and do today and then come back a few years later and do it again. It's something you commit to, put the infrastructure in, looking at saying that 10 years from now I'm going to be able to tell you what that sea will rise, ground subsidence is or that uplift relative to around the coast so that you can really tell what the water level is doing. It's a long term looking at it and geodesy is one of the ways you can do that.

Next one please. We have been shaping the way NGS does work for the last five or six years, about 2000 is when -- and actually this started -- I came in as the Deputy Director in the late 90's, officially in 2000 but I started in about 1998, '99. So working with Charlie Challstrom who was the Director at the time, he and I sat down and we looked and said where do we really want to be. We did a lot with infrastructure, we built a lot with monuments, we have -- in our database today we have over 500,000 vertical control marks, 250,000 to 300,000 horizontal control marks, over a million gravity monuments if

you will. Look at all these CORS. We have a lot of infrastructure. We did all of the adjustments, we did most of the first order of work. That was our infrastructure, we did all of that. We did some models and tools and people depended upon that, we've always partnered. But we didn't build a lot of outside capacity. We did most of it ourselves, we did some training and workshops. But if you look at this diagram it's saying we're shifting from being the infrastructure people to doing the adjustments, doing everything ourselves, to building the right models and tools, providing them and building that outside local capacity with the appropriate tools and models so that they're able to do it themselves. And that's what our CORS program's about by the way. Out of all of those CORS pro -- CORS monument you can say that 1,000, NOAA themselves probably -- and actually that's counting the Weather Service and everything, there's only about 60 of them. Okay? So we're a very small percentage of that CORS. That's part of what you would call our infrastructure and our O and M. The outside capacity that we built is the rest of our partners and they're building -- they have those CORS, they're maintaining those CORS. And one of their CORS goes down, they fix it. They call us up and tell us our system's not working right, we're working on it, it's either going to be up or down for -- whenever it is. But they communicate with us, that's a partnership we have with that. But we got to build that capacity. We worked with them,

we gave them the vision of where we wanted to be and if they wanted to be part of that vision here's what they had to do and we built standards and guidelines and procedures and processes with them so that it was part of their system. And that's what we're ending up moving and we're trying to do that with our height modernization program, our shoreline mapping program, our FAA work that we do, our standards and guidelines. Even our standards and guidelines we worked with the community because I wrote the vertical GPS guidelines and I drafted up what I had and then I sat down with the community, American Congress of Surveying and Mapping, ASCE, I sat down with them and I said here's our guidelines, what do you think and they worked with us, did pilot projects and we developed a final set of guidelines together. Working as a community to try to make -- move those things forward.

Next one please. And I think I've talked a lot about this, this meeting our partnerships. We have been supporting the GIS community and at ESRI we just received recognition for doing that from trying to take all of our data to try to get people to use it through our OPUS application but we've -- also working with them to create a GIS web tool where they can go out, anybody that the RTIS software and other software will be able to go out and get our entire database through the web of control, our Getadig (ph) database, put it on a map. And they actually demoed this for me San Diego last week where they

actually went out on Galor (ph), the globe, picked the United States, pulled it in, pulled in our entire database and then kept going. That's you like you ever see in -- all the time where they just keep going down and down and down and went all the way down into California and pulled up a control right there on the spot in San Diego out of my database and it just came from the web. Then they turned around and pulled up some data out of Riverside County that had it on -- the same stuff out on the web. That's the kind of thing that we're trying to build and that's the local capacity that we built and the metadata and how we're bringing it to the community, working with them because they're the ones that asked us to do that.

Next one please. Now really what this leads up to is meeting future challenges. You've seen a lot of the things that NGS is working on, has been working on. We tried to pursue many of these different things with the community positioning of ships and buoys and bridges, docking charts. A lot of these things are all -- they're all possible, we can do. We're looking for guidance on what people think is important. And when we sat down and worked with all the -- many of the port authorities and many of the shipping industries and tried to find out where and what they wanted they seem to be not leading in that direction at this time so we have not pursued positioning of ships, all that -- that's doable. So I guess in some sense what I'm asking for is for you all to maybe think a

little bit more about this, try to get a little better understanding of what we do, but also think to the future and tell us where do you think you want to be with positioning so it helps me position myself of figuring out what do I need to do to help meet your requirements. Because in some of the sense when I'm positioning ships and buoys and no one's picking it up and really jumping up and down and saying it, although the buoys is something that more people are interested in, then I don't keep pursuing it and that's -- it's not something that people wanted. If they wanted it then they would pursue it and come back. So I let it drop and go. Now sometimes -- I don't have a problem with doing some things and having them not be picked up because many times people don't fully understand the benefits of what you can do so you do a demonstration. So I guess what I'm looking for is more guidance on some of that and your thoughts from your perspective so that we're able to produce what you really want and not what I think you want. I just need to produce what you want.

Next one. I think that's it. Yeah, that's it. Thanks.

MR. RAINEY: Dave, thanks. Let me just make a quick observation then I'll -- everybody jump in. But it's -- it seems to me we're almost at a point where -- I mean it's just phenomenal. I'm con -- you know, the more I learn and just this is another example of it, I mean the technological capabilities of things that NOAA does and is doing and can do, they're just

phenomenal. And the -- it seems to me we're quickly getting to a point where, you know, it's almost overwhelming what we can do but then the question becomes with the limited resources we have how do we figure out what we're -- you know, how do we prioritize them, all of this capability, with the -- you know, where do we put our limited resources and things. And one of the things I'm hoping with the -- we talked this morning, we'll jump back in on the special report. But I'm hoping and looking for ways, you know, for us to be able to engage as a -- you know, again, this is -- you know, we have a charter, if you look at hydrographic services broader than the MTS but also not as broad as everything NOAA is doing NOAA wide. But to try to maybe provide some advice or insights on what we think are requirements. But one just specific example just -- not to keep beating on the ENC, but for -- you know, we have a requirement there coming down the line with the -- you know, the IMO, the S-57 standard and NOAA producing the database and I'm wondering how NOAA looks at across these -- you know, these what I would call hard requirements with the carriage requirement coming here shortly. Is there a -- maybe it's implied in the whole PPBES process, but as you look at what NOAA's role is and NOAA's mission is on delivering these things if you have a hard requirement out there like a -- you know, the ENC, does the budget process take into account, okay, to get to an ENC, to develop that database that's going to drive all of these other

products, you know, you have to have this much survey going on, you have to have, you know, CO-OPS and NGS participation to get the proper, you know, tides and currents and things. I mean is that kind of analysis, can you figure that out? Because I -- what I can't figure out is how you manage this when -- a particular earmark, like, okay, the ENC earmark disappears and now we say, you know, that's -- I mean it seems like there has to be behind that a strategic look at how all of these different technologies from the different shops integrate to produce a product that meets a requirement and I'm just wondering how do you manage that across the programs and NOAA. Is it -- I mean if there's -- how that thinking goes. Because when one particular line items falls out on the budget it seems to me it effects, you know, everything kind of across the board and I don't know how you strategically manage that. And, you know, it -- in other words do you guys try to take a look at -- I mean what you went through, Dave, just there was just an incredible list of all the different capabilities that you have in NGS and I don't know how -- do you also take a look at and say, okay, we've got a NOAA mission, either, you know, service or product that we have a requirement for so we need this much effort in -- you know, consistent with -- you know, how do you rationalize that across. You know, for hydro surveying you need this much effort but it seems to me and occurs to me that if you're going to get this much data surveyed, have an efficient process, you

also need this much resource in marine charting to handle that, take it out of the can and process it, clean it, whatever. And so these things just all to me are interrelated processes and I don't know how you guys sort of manage that again with the.....

MR. ZILKOSKI: I'll give you -- let me give you my perspective, what I do, and then I think Steve if he wants to can talk about it from a goal team. Because there's two -- several things that happen here in how this works. I -- from a geodesy I'm the geodesy program manager and Jack mentioned that in this PPBES process you have programs and you have goals. Now the programs, like mine in geodesy, we go and we talk to the other programs about what you need and the requirements. And from our shoreline, Mike, my Chief of the Remote Sensing Division, has meetings constantly and planning with the -- his counterparts that need us. So inside NOS if you will and actually inside NOAA because it sometimes involves more than NOS, we're meeting constantly looking at what are your requirements, how can I do it and how can I meet you, so based on existing resources. So if something gets cut through, because immediately you're talking about, well, what resource do we have and how do we bring that together, so we're doing that inside. Now from a program manager standpoint because of the geodesy I'm always looking and going to the other program managers and MTS is a program. But there's other ones outside, weather and water has some programs that we're looking at the

CEO coast estuary oceans of we're -- some of my activities like the height modernization also helps the coastal estuary people, Paul Schultz out of Coast Services Center. So we're talking about how can we build and bring those things together. Our programming and planning process, which we're -- you know, we're kind of babies in this thing, we're working it. But our idea is that we're starting to really start having one program manager talk to another program and really truly integrate these activities so that my geodesy height mod fits into that, my geodesy, you know, positioning would help in the shoreline aspects of it. So we're dealing with a program thing. The issue we have is that inside NOAA, as you know there's a lot of, well, you looked at the President's request and you looked at the House and then you look at the Senate and you got to look at what we get. So we don't know what we're going to do until March of every year and we're already halfway through our year. So that's managing six months in arrears and you got to be going, which complicates the process. I'm not making an excuse for the process, I'm just saying it complicates the process. So from that standpoint that's how we work and we kind of work fast and furious that last one. But the first six months we're doing things basically based on what we think we're going to get and how we're going to work. I'm not sure if that addresses it but we're trying to get there.

MR. RAINEY: A lot of people want to -- Jon, let me and

then we'll (indiscernible).

MR. DASLER: Yeah, I thought that was a great presentation, you guys definitely put out some great products and do some good work in your shop. I think parallel to the -- just looking back at the cartoon though and I think the parallel to that is from the vessel navigation standpoint I mean we can have, you know, tight vertical positioning and horizontal positioning, we can have electronic charts and we can have ecosystems on ships but if we aren't getting the wrecks and obstructions on the chart you're back at the guy going down the road not knowing that the truck is there. And it just seems at times the way it's going and the way funding is progressing, you know, we're still putting the shoes on the horse so to speak. And I think there's got to be a balance somewhere through that whole system. But it -- from the Marine Transportation standpoint, I mean I think it provides a false sense of security when you have, you know, the electronic charts and the ecosystems and, you know, they're not aware that there's a lot of these critical areas that still need to be charted and I think all of that needs to be brought into the bigger picture.

MR. ZILKOSKI: You know, I want to -- just if you don't mind a comment, because that's a great observation and I like your analogy of the -- with the ship and I might try to use that. But I wanted to make my point about that this group is more about -- more than just water, but so I'll try to

incorporate some dealing with water in it. But the issue of the trying to make, you know, how important it is and what's your -- what's lacking is sometimes we don't paint that picture and the hurricane did do that. Like I said, Louisiana, for 25 years we've been going down to Louisiana and telling them about the subsidence, what's happened to the monuments and so forth and as I said we were building that. So we were ready when the hurricane came, we didn't know when it was going to come but we just knew something was going to come, we didn't know when, and it did occur. And so that gave us the opportunity to be able to show people, hey, here's what you've got. I used to have 1,000 monuments down there that I'd publish and I was -- kept trying to tell people they're not accurate and I built the system. After the hurricane it was a whole lot easier for me to tell them I have 100 monuments that I know the elevations are and I'm standing behind them and I'm publishing them. The other 900 are no longer being published. You can get them but they're not being published, I'll give them to you. That's the change that occurred and that's I think something similar that you have to do. They don't understand the picture because people -- you keep publishing -- in some sense publishing information without -- pull them off, which I did in Louisiana and now I'm left with 100. And then they have to -- you have to build that system back up again but not build it to the point that you can't maintain it and that's where you're at, you have to get that.

MR. RAINEY: Bill and then Andrew and then Lou.

MR. GRAY: Dave, you really got my attention when you showed the Golden Gate Bridge there and the buoy tender of the Coast Guard and so forth. I guess you had a piece of your equipment aboard the ship and you say you've got this 10 centimeter ability to measure vertical position, of course you can do it the same horizontally and so forth, and when you said that the shipping industry wasn't interested in it. And I'd really like to learn more about the capability that you've got and how you feel the shipping industry could make use of it if they'd pay more attention to it. Because the thought that occurs to me, 10 centimeters, that's great, that's pretty small distance. These big ships, haugerside (ph), I mean it can be several feet according to loading, whether the sun is shining, whether it isn't shining or something like that. Ships squawk, ships list when they're maneuvered and so forth like that. I don't know whether these are the things that turn the most. They don't care about plus minus 10 centimeters, they're really worried about a bigger number or something like that and a number that's changing. And as you said, if anything -- because of speed, whatever, changes it. But having that capability it would seem to me, I mean I can remember when we were putting TV's on the bow and stern of the ship to help in berthing them. They didn't do much good at all because it -- the depth perception was not what it should be. Then we got these docking

sonars. They were very good. We got rate of turn indicators, they were -- they're excellent. And for maneuvering of a ship all those things help and with this ability to measure where you are up, down, si -- this, everything else like that, that's a very good -- that's a marvelous ability to have and I surely agree with what was said but you got to know where the objects are, the hazards are or something like that. So I think it would be good if sometime we learned a little bit more about what you did do and how you think it should help the handling safely of large ships, or smaller ones for that matter. Because you've got a capability to do something and I think you just have to find out is that of any use to me. I think the answer is it must be somehow.

MR. ZILKOSKI: Yeah, we can certainly do that and I'm more than happy to do that. And Andy has -- well, Lloyd Huff who used to work for the government and now works up at the University was instrumental in working with the shipping industry in the squawk, the roll, the pit, everything that we did we had to account for. And, you know, there are some parts of the shipping industry that were interested and they donated something, I mean they donated containers. And I'll never forget my geodetic group down in Fredericksburg when they had a con -- couple containers, like three containers, they were dropped off at their place and they kind of called up and said what in the world am I supposed to do with these three

containers. And that was Lloyd having them dropped off because he was going to fix them with -- install GPS with batteries and everything else. So we -- I would like to pursue that and show what it's about because it's -- the community wasn't ready at the time most likely to try to do it and so time wise we may be able to push it now. And the system itself was probably not as reliable as they would have really liked and so they weren't willing to invest in it. But yeah, we can do that and we will.

MR. GRAY: Because a lot of things I say have been developed in the time that I've been active in the industry to help the safe handling of vessels. And some of them are terrific, some of them weren't any good at all. And -- but when you say you got the shut -- they weren't interested I'm curious at that, I would think that somebody would be interested even if they didn't understand how it was going to help them.

CAPTAIN MCGOVERN: Andrew McGovern. A couple of things. I worked a little bit with Lloyd on that, the H-10 panel, the Navy did that and they actually even could see the twisting of the ship. It was pretty incredible. One thing I'd like to clarify because I've heard it a few times here and it's in the report. The -- Congress is not mandating the carriage of ENC's. All right, just -- but it's in the report. We have to.....

UNIDENTIFIED MALE: Yeah, it's a electronic charting system, I didn't say ENC.

CAPTAIN MCGOVERN: Yeah, we have that. We have to change

that. You know, they -- it would be a raster chart, it could be -- actually it was so unclear it's dangerous but that's another issue that, you know. The other instance....

MR. RAINEY: On that, Andrew, though could I just -- I mean is it not the policy and the whole place we're going with this ENC development is that will become the one single official database that then -- the idea is that you can -- Bill, you can print out a raster chart from that, you can print, you know, all sorts of things. So the -- my understanding of where NOAA's trying to go with this database is not just simply to make an ictus, you know, vector chart, this would also be the official HO database that you'd pull all your -- we wouldn't have the parallel raster process in other words and the ENC is my understanding of where we're trying to go.

CAPTAIN BARNUM: If I can just add onto that. Yes, Congress is not mandating ENC's, they're mandating promulgating regulations for carriage of electronic charts, that's to be defined, what an electronic chart is. What Scott mentioned about ENC, currently we are maintaining two production systems, one for the production of the paper and raster chart and one for the production of the ENC. So anytime you have two of anything there's always a question of maintaining them in sync. And so it's a very time and dif -- very difficult process. So our goal is to have one production system of which we can print paper charts, produce the raster charts and produce the ENC from one

single database.

CAPTAIN MCGOVERN: Yeah, correct. I just want to make sure that when we do this report it's correct, somebody can't say that and say, hey, you know, you're not -- you know, you're going off in the wrong direction. This other thing that troubles me is the -- this docking -- this highly accurate positioning for docking and basically -- and for maneuvering in, you know, zero visibility for the efficiency of the port. The reason why that is not being pursued is because it's illegal both internationally and nationally. You know, it's just something you can't -- you know, and until that changes and I kind of -- the hair went up on the back of my head when Lou mentioned before about his system down in South Carolina, what he can do with ships, you know, that you can automate all this. Well, that's great and it kind of goes with your cartoon there. You can automate this and put it there and it'll follow a track. The problem is -- you know, with airplanes is, you know, it's controlled airspace and there's nobody else in that track. You get in a port like Charleston or like New York and it's like putting a bus in Manhattan and automating it and just letting it go down Broadway. You know, assuming it's not going to hit anything that's going to get in its way because guess what, everything's going to get in its way and that's why, you know, we have people that do this. And that's why -- so that's why some of these things while technically you can do them -- you

know, I guess we're all at -- you know, we can do things but should we do things, you know, and that's where we have to kind of draw that line and that's why some of the stuff may technically be feasible but it's just not practically or it's not legal or it's not -- you know, there's a lot of reasons for this. It's great to have this technology. I mean needless to say if you get stuck in the fog it's great to have but you do not use it to say I'm going to operate in the fog because of, you know, I've got this stuff so I can go. Because if something happens, you know, you're going to court and you're going to lose, guaranteed, you know, in every country in the world. So that's where -- and I know there are ports that are looking at this but it's not really condoned by any of the -- you know, anyone who's going to have to actually operate it. So that's one of the reasons, wanted to explain that.

MR. ZILKOSKI: Yeah, I -- and I heard that reason -- I heard those before when we were doing it and part of when we were demonstrating it was to show that we -- you know, that it could be done just to make sure we could do it and what kind of -- what would it take to really do it so that if -- that when ultimately someone says, well, that's cheap enough for me not to use it for what you just said. In other words if you're stuck in a fog and you got to do something you got it. But it also I would think would improve and help with efficiency even when not in a fog and that's what we were looking at was just the

efficiency of that. As we all as being able from the under keel clearance was probably more important to the docking chart. So being able to bring in more cargo so that you can be able to know -- but also the -- highlight the importance of, you know, if I can get your keel to 10 centimeters but you don't know the bottom of that chart very accurate -- or the bottom of the channel very accurate it doesn't do you any good. And so from that standpoint they go hand in hand of saying I need better charts because I can position to 10 centimeters. And the reason I want to position to 10 centimeters is because I can bring in more cargo. So now I got an economic reason for bringing it in, I got the technology to allow me to bring it in so there's a reason for me to do better charts. Okay? But if you don't have that then you can't then you can't bring better charts. That's sort of my -- that was my strategy behind saying I can do this for you but if you -- but it doesn't do you any good until you get better charts. That was -- I was trying to help you.

DR. LAPINE: I stand corrected, Andy. I just want to make a public comment that when I was the Director of National Geodetic Survey I never realized how important the National Geodetic Survey database was. And I use it every day, sometimes three and four times a day. I get -- the public will call me a half a dozen times a day wanting knowledge about geodetic control. I never thought that that was one of the more important things that the National Geodetic Survey does and they

do it very, very well. So I commend you on that. I also commend the National Geodetic Survey on technology development. A lot of the things we're hearing about today started with a receiver in a cargo box, neither of which were designed to do what they did, but the National Geodetic Survey figured out how to integrate these devices. And we are coming of the age now, Andy, we would never go without a pilot or a captain in the pilot house but we could certainly automate some of the functions. I mean we have automatic pilots that -- automatic pilot systems that steer the ship for us right now. We'd never do it in the blind, I -- sorry I left you with that impression. I think the big thing for National Geodetic Survey, for charting, for oceanography is this Vdatum issue. We need to understand how sea level relates to orthometric heights, that's benchmarks, how it relates to the ellipsoid which is the surface that GPS works most accurately on. Until we get to that point we're going to have trouble putting a system like I described on a ship safely so that you could take advantage of it. It's extremely important that we pursue this Vdatum issue more fully. I'll turn the floor over.

CAPTAIN HICKMAN: (Indiscernible). When you say 10 centimeters from the bottom or whatever, like are you going off of a charted bottom already? Because like say in Houston, what -- how hard of a bottom are we talking? Because once you have an emulsion there I might be driving through the mud as opposed

to being 10 centimeters from some type of bottom that you're talking about whereas Andrew's going to be in a much worse situation than I would be if he was on the bottom.

MR. ZILKOSKI: Yeah, it has to -- once again, it goes back to the chart. It has to be chart so you have to be consistent. And what we did do in this project in working with Lloyd, we actually resurveyed the bottom, we resurveyed it prior to -- so we were truly within 10 centimeters of the system because we did it over ourselves for the channel that we were in so we could clearly say that. And there were times that, yeah, they were at the bottom. Okay? And they knew they were at the bottom and our system confirmed that they were at the bottom but they didn't need our system to confirm that. But they were and so it showed the whole system. But no, it's only as -- it's -- I can only position to the keel relative to something that I already have. I mean if you don't have good charts and they're not updated charts it doesn't do any good. It's like our shoreline. You know, you can fly the shoreline, we can go into the harbors, we can put them, but if you take a pier out and you put another pier in and we didn't do another survey it's not there on your electronic chart. So it's the same thing, you have to have good up to date surveys for these systems to work.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

MR. ZILKOSKI: Well, it's off bottom hills.

CAPTAIN ARMSTRONG: I just want to clarify that -- I don't think that 10 centimeters was within 10 centimeters of the bottom, it was -- we know where we are plus or minus 10 centimeters using the bottom as a reference point. So that was the level of accuracy, not the actual distance from the bottom.

MR. GRAY: Yeah, just -- once again, don't forget, the ships are very flexible and they're moving all the time and we're sharing and doing this. I mean what you've got with the interactions or any of them, I mean ships needing the channels and everything like that. But it does make me think that to pursue this point a little bit, and I don't know where it is now, Andrew, with H-10 but all that data that was taken three, four, five years ago, whatever, if that's ever been reduced to something that is really useful. Because I know there was a money problem and I'm getting the data now it's just that (indiscernible) H-10 which is called controllability and they have been dealing with the maneuvering of ships, how they maneuver and so forth, for about 40 years now I guess. And what they did some years ago in Houston was to measure some 30 some transits of the Houston ship channel and eight or 10 meeting incidents in the Houston ship channel, how the vessels behaved and how things went compared to how people thought they would. And I think that at a future meeting of this committee it would be worthwhile to have a session, a portion of a session devoted to what does that really tell you about what's going on when the

ship's trying to get in or out of these tight places. Not when it's alongside the berth or not when it's in deep sea but that was very valuable work that unfortunately has never been reduced I don't think to a point of being able to be used yet. But for some of the things that were -- there's some pretty dramatic findings in it. They had done that preceding that, what, in the Panama Canal it was I think where they first did it. So we might consider with Alex Landsburg or something like that to get -- now Mike Morris is on that, isn't he?

MR. RAINEY: Yeah, Mike was involved. Alex I believe just recently retired and (indiscernible).

MR. GRAY: Well, he did but I think he's still Chairman of the H-10, isn't he?

MR. RAINEY: Yeah, so.

MR. GRAY: Well, he's retired but he's still Chairman of the H-10 panel. I think.

MR. RAINEY: We can follow up on that. Okay. Jon Dasler.

MR. DASLER: Just one last comment. Again along the same lines John Oswald was talking about, Vdatum and the importance of Vdatum in updating nautical charts. And, you know, the largest contributor, and I think I mentioned this in D.C. but the largest contributor of the total propagated error is water levels and, you know, just development of Vdatum and then extrapolating that across survey areas and doing the surveys and then eventually operating the ships is going to tremendously

improve, you know, the vertical accuracies. Because right now water levels is, like I said, the largest contributor to the total propagated error or the (indiscernible) chart. And the survey systems that are used and the sonar systems that are used have very high resolution and that's one of the biggest problems we're facing.

MR. ZILKOSKI: That's good to know. And actually our upper management, you heard the terms Maureen Wiley and Bonnie Moorehouse and Mary Glackin, the three ladies that are part of this new PPBI system. That's something that resonates with them, the Vdatum. They understand that, they see what that is and they understand that (indiscernible) people do get that and they do appreciate that. So whenever you have those opportunities you should try to talk to them about that or explain that. And clearly, Sherri, they're down there on the 21st, you should have some of those words that come out of here that say they're important. Well, it does not hurt because they'll come back and they'll ask people, I heard this about Vdatum, what does it really mean and in some ca -- Maureen's not going to be there I guess but she's the one that understands. But clearly Bonnie and Mary hear these terms from us but don't really understand that our users really think they're important so it helps.

MR. OSWALD: Yeah, I'd like to make one comment, John Oswald. And one thing that NGS could do in my view to help what

Mr. Rayfield said, sufficient funding -- well, not the funding but to try to reduce this critical surveying backlog in five years. That's probably doable. They just -- you know, they just added $10 million to contract backlogs. That's the hydro part. In my view shoreline mapping at NGS is under funded by about -- I think it's $2.5 million or something in that range or.....

UNIDENTIFIED MALE: We get $2.5 million that we send back out to contracts (indiscernible).

MR. OSWALD: It should be probably in the range of somewhere between $6 and $10 million. I don't think it adequately keeps up with the backlog myself and I am dismayed to know that I worked on a NOAA project this year and the shoreline is out of position, not by a little bit but by a lot, 1,000 meters so that's like you can walk from here to Cook Inlet, you'll be in the water before 1,000 meters is up. Three thousand feet and why is that in 2006. It's not that it was surveyed erroneously, it was just that it was surveyed in 1874 is the shoreline layer on our chart. This island has not moved. The Pribilof Islands, the same situation. This is another island this year. Why does this exist when we have free -- you know, we actually have free imagery that is geopositioned. I think some assessment, maybe use some of this free imagery, articulate our dollars to do some change analy -- particularly in Alaska. I don't know if -- this is probably not the case in

the continental United States. But I've come across it about five times in my career of -- because of the method of the surveys in 1874 an astronomic position, says it right on the nautical chart. Now our mean high water line is out of position, the mean low water, the state federal boundary is out and the international boundaries are out of position. Those will eventually have to be revised. So I think that's one program that NGS could do to support, you know, I think critical MTS shoreline mapping. Not very sexy or anything but it's just fundamental basic data that we need. And with that we also have soundings on our charts in Alaska generated by Captain Cook on his third voyage that are published soundings. Supposedly, I've heard from numerous NOAA authorities about that and why is that. They're probably good soundings, maybe they're good soundings. In this case it was just 1,000 meter, 1,000 meters, 3,000 feet.

MS. DASLER: Dave, just a quick question. Is there critical shoreline mapping priorities that are set similar to what HSD sets on their areas and if not -- I mean it seems now that technology is coming to the era where you could take a lot of imagery that's readily available and a change of detection could be made and then you could prioritize or it seems like that would be pretty prudent to try to identify some of these areas that are really in need of the shoreline mapping effort.

MR. ZILKOSKI: Yeah, as Jon said though, we're really under funded. So what we do is, as I mentioned, we look at the

priority ports and we talk to our -- the Coast Survey who sets the priorities for these ports and we go back and we visit them and we have shoreline based on their needs. So we don't have enough money to go out and really just go and do things that aren't in the way of where is the Coast Survey going to be, where are they going to be updating charts and we try to follow along that manner. But Mike Aslaskan is back there and I don't -- Mike, if you want to say a few words on that you can. Mike is in charge of the Remote Sensing Division which is in charge of the coastal mapping and shoreline.

MR. ASLASKAN: Yeah, thank you. Again, our priorities are, Coast Survey is number one, again customer priorities, again trying to keep up with them as far as where they're going. The shoreline's critical for them planning for NOAA assets as well as contract assets, photogrammetric surveying. They use that for estimating, they use that to keep actually the ships off the rocks and spending a lot of time doing shoreline verification. Other than that we do have what is called a matrix life, we look at the age of a shoreline of areas and we try to update that when funds are available and dependent on the number of requests of shoreline discrepancies that come from Coast Survey. For instance, recently we just did the entire coast of Georgia based on several years of requests and the shifting of those barrier islands.

MR. RAINEY: Did we get to everybody as far as questions

or comments? Okay. Dave, thanks very much and David asked if we could run that and we've been trying to get NGS to give us a presentation so we can better understand a lot of the things that they're working on that we're also interested in. What I'd like to suggest here in the remaining time we have today is that we take a look and reconnect with our discussions on the special report that we're working on. But insofar as to talk a little bit about the production schedule and kind of try to set out -- kind of just talk about our process rather than the actual -- trying to go through more content particularly. But just let's try to get a common -- get on the same page as far as what our process and kind of production schedule. So if I could since we're kind of pushing it late in the day let me ask if you need to take a break to do it kind of independently and let's press on a little bit and ask if Ann could rejoin us and we'll talk about some of the process here, how we're going to try to proceed and then we'll try to conclude on time and then see if we have any additional public comments and we'll be back on our agenda and we can take a look ahead to what we're talking about tomorrow. Andrew.

CAPTAIN MCGOVERN: Well, it seems like if you want to get this product out before the next Congress which is January you realistically have to have it ready for the printer I would think by the beginning of December and therefore ready -- last comments probably the beginning of November so that we get the

final document, get it approved. So I would think that would be a good time table, like November for us to be done with it.

MR. RAINEY: Maybe -- Ann or Barbara, I mean as far as to how the relationship goes there and the -- you know, your process and -- can you advise us on that? What we really want to do, we want to look at when is it on the street and then just sort of back into it and then I think that'll probably start (indiscernible) in place. But would that be a good way to approach it as far as how you.....

MS. BOESE: There's a.....

MR. RAINEY: .....see the process?

MS. BOESE: Well, there's a couple things. You know, typically you decide when you want it to be issued and then you work backwards. But one thing, and I don't know about how to go about changing this but I know that my contract period for this particular project runs through October 15. So that.....

CAPTAIN MCGOVERN: I would say then that's a day.

MS. BOESE: So in other words I would turn over.....

CAPTAIN MCGOVERN: Makes sense to me.

MS. BOESE: .....I would turn the files over for printing at that date or before -- actually prior to that date.

MR. RAINEY: So get me your comments by, what, noon on the 14th, right?

CAPTAIN MCGOVERN: There you go.

MS. BOESE: You know, actually though I think maybe even

though it may be pushing it, my personal experience is that we take a breather from it after the meeting and we've got all the comments, do the work, have a -- hopefully assemble a smaller group to go through a review process once those changes are in and then unless there's something that I don't know about get it done. Because when the momentum falls off the momentum falls off.

CAPTAIN MCGOVERN: I guess my only question on that is we don't have any -- we don't have the lawyer here, but under the FACA rules do we have to approve this document in a public forum, which could be a conference call but, you know, that would be -- I mean we -- you know, the final document would probably have to be approved under the FACA rules I would think. And then -- but we could do that by teleconference. It would have to be in the Federal Register and such.

MR. RAINEY: But I guess could you -- I mean maybe it's obvious but to me I don't think it is exactly. The actual pieces of it because we did have a conference call and somebody had mentioned the GPO and that kind of -- is the idea that this will be put together and then it goes to the government printing office? What is the process involved to -- what are the steps other than we've got to write the content and get that coordinated through NOAA. But the actual mechanics of the public -- I mean if we want to have it on the street, you know, done by whoever actually publishes it what -- you know, is there

a time thing -- GPO, that kind of scared me when I heard GPO was involved. Is there a big lead time in their production process or how -- can you talk to that at all? I'm just not familiar -- I mean if we want to have this say out in December does that mean that we got to have it to GPO by, you know, a certain date or does anybody know how that works?

CAPTAIN MCGOVERN: I just asked Mike, I said how long did it take you to get this published. He said two days.

MS. BOESE: Oh. See, in the commercial world it would be from final approval really like two, three weeks. So whatever the -- if that's two days. But we need to get a date and we need to connect -- I need to connect with a contact that says make sure that I have everything in the right format, blah, blah, blah, for that printing. And then we do have a proofing process that we have to build in as well. So really -- let's see. If we're going by my date, October 15.

CAPTAIN MYRTIDIS: Is that a little bit too soon, Scott, October 15? I -- it sounded to me like December 1st was a very good day and give us the time to do what we want to do.

MR. RAINEY: What I'm hoping is that -- and again, we have tomorrow in our meeting and we have some presentations of course and some public input that we want to consider but we'll have time to talk about this more, you know, some -- content wise before we leave here. I'm not -- this isn't our last time to talk about it. But my hope is that we have identified when we

leave here, you know, our deadline. But to get the sense -- I really want to have a consensus from the panel that we're in agreement on the scope of it and we had some good discussions on that this morning and then get from people if they have off the top of their head some ideas of specific examples or -- you know, we can try to get some comments on that. And then leave the meeting with everybody -- everybody's buy in, my hope anyway is everybody has bought into this concept of this and then hopefully we can have some -- in the areas we need to flush it out leave with some examples that we can incorporate in here and folks identified that can help build the rest of this report, get it together and then put it back out in a more finished form for everybody to -- when we start to refine it. So I think that that's the process we're envisioning so that the question of timing is when do we want to have it out on the street and how much attention can the panel, you know, help focus on this to flush out the -- you know, the remainder of the report. But would -- do you think it's unreason -- if we've got that October date that would give it -- I mean if we had a month as a panel, you know, like Ann said, obviously, you know, after the meeting you want to have -- you got to get back to regular things. But if we had a month to come up with our rough comments and remarks on the draft and moving it forward, the building blocks that Ann talked about, would a month be reasonable for the amount of material that we're looking at and then that would give us yet

another month to kind of refine that. In other words if we could finish the framing here in the first month then we can start, you know, really refining the points. Would that -- does that.....

MS. BOESE: That's -- if I'm hearing you correctly that's -- there's so many other things that, you know, we have to actually -- get the artwork in, that we would have to have our final copy much -- we wouldn't be able to have that much time I don't think. I mean if we were going to wait a month after tomorrow to get all that initial input that would be stretching it too far. The only way to -- I mean I'm sure that I can probably extend that date, I just didn't -- have not done that.

MR. RAINEY: Well.....

MS. BOESE: I guess my question, is it realistic to think that we're going to have -- that we will -- will I be able to leave with some concrete examples and some things that we've talked about that we can start incorporating in? To keep -- yeah. Yeah. I mean I've gotten some sharper focus for sure, that's definitely happened. But -- and I've gotten a few examples. But if anybody has -- I know there probably wasn't that much time to read the report but if I can -- the more hard information and more hard input I can get now the faster it gets in, the faster that second draft goes out and that should be the part where we really have something and this is basically what we're going to be doing and then you can -- then we can get some

approval on that.

MR. MYRTIDIS: If you -- Ann, if you can extend your time, like you say, why don't we establish right now December 1st as the publishing date and work backwards and tell us when you want everything to be ready.

MS. BOESE: Well, I said I thought I could probably extend the time, I haven't actually asked that. That was processed through NOAA. I don't.....

MR. MYRTIDIS: Right. But October 15th doesn't make any sense because if October 15 expires that means we have to give you -- have it ready tomorrow basically.

MS. BOESE: No, no.

MR. MYRTIDIS: If you fix the.....

MS. BOESE: I feel December 1st, that gives us too much time and people forget about it and kind of put it on the back burner, I feel.

MS. DICKINSON: (Indiscernible - away from microphone).

MS. BOESE: And I think if we try to stick to that timeline we're kind of forced into paying attention to it.

MR. RAINEY: What if then for just the purpose of having something that we can look at if we -- and since that's the date that is there right now what if we took that and then just backed it up and then, you know, we could see what that looked like.

CAPTAIN HICKMAN: Ann, what do you think you need? The

pictures and everything by -- like he obviously said, if we did it for a month it wouldn't be enough time. So.....

MS. BOESE: Well, I have a -- we have a lot of artwork right now but we just haven't had -- we haven't placed it yet and we can get artwork. But the -- to me that's not going to be the difficult part. The difficult part is going to be moving from where we are now to putting in some actual concrete changes, refining it, work -- redoing the title and sending it back out. I -- you're asking me for the production schedule and I didn't think that there was a -- I didn't think there was an opportunity to go beyond the schedule that I was given. I mean I was given deliverable dates. So that's putting another factor in which I would have to find out if that's realistic. But what I guess I'm -- I guess what I'm hearing is that people want to go back home and then send their reports back with individual comments and the only issue that I would have with that is that that doesn't necessarily mean that the entire panel agrees with these ideas. That's why we were hoping to go kind of through chapter by chapter while we're here if that's a realistic expectation.

MR. RAINEY: Yeah, I know we want to do that as much as we can and get those specific examples and we'll definitely do. We can talk more about it tonight and then tomorrow as well. And it's just knowing when we need to get everything in and we'll just work with those dates that we have. Bill, did you have

something?

MR. GRAY: Yes. To me there are three things that really need to be reviewed and agreed for the committee as a whole. And one of them is to zero in on what are most wanted issues. You've got a good list and it's got everything that I would want in it. At least half of it I'm ready to throw out. So that's one point. Another one is we've got two sheets here called a vision for the future. I have no idea what this is going to be. And I think we ought to spend a little time tomorrow trying to get down -- what are you -- what are we trying to say in that vision? I mean when I say budget, cor -- budget, that is enough money to get the five things that are on our most wanted list done within a few years, five years or something like that. But I think we want to agree -- and the third thing, as Ann has said, is examples and that's where I think to give some real punch to the report graphically and otherwise here are examples of NOAA's capabilities in each of the important areas, that would be one thing, to really get -- so you don't -- if we use terms like geodesy we're going to lose everybody except the people who are Geodesists or whatever they are. So we got to put it into words of one syllable or something like that. The harder part's going to be to get examples of where do we say -- and this is where the system really has fallen apart completely. And that's where I say the Athos I, I keep coming back to that example because there is a totally obvious example where the

whole governmental system of assuring that we have a nice safe harbor in the Delaware River just completely fell apart. And it's cost the insurers and the owners $240 million so far. I don't know, I guess the pollution's gone away down there and so forth. And the only result we've gotten out of it is that stupid Congress put -- passed immediately new bills by Delaware and Pennsylvania to make the liability higher for owners of single hull tankers. Well, hell, it wasn't their fault, it was the fault of the government because of the system we've got. And so I think we've got to get those three things, what are the most wanted, what is the vision for the future and what are the specific examples. And we don't have to have a whole raft of them, it would be better to have not more than one or two for each of the major points we want to make. And if we can get those things on the way to being at least thrown out there for these. And from my point of view if you say if we leave here giving Ann something like that or Ann -- you and Ann and Steve can work it out, and if you get that stuff -- feed that stuff back to us in the next 10 days or something like that and say I got a week to look at it. That's the kind -- let's set some fairly nearby goals to get this thing done so that maybe by the time we get to Labor Day now then we're doing the policies.

MS. BOESE: Right, that's what I basically (indiscernible).

MR. GRAY: That's the way I would do it. And we can get

Dick West and Rick Larrabee who -- I mean both, not -- because Rick sent you a note too I think, said this is a good start. And with the input that those two guys have I think that would be very helpful.

MS. BOESE: Well, should we tackle one and spend another 25 minutes on it, should we try one? Or go with the most wanted list maybe.

MR. RAINEY: Yeah. I think we can see what we can do. Just -- Glenn, go ahead. Or.....

MR. BOLEDOVICH: As you folks know tomorrow I'm going to be presenting on a reauthorization of the HSIA, which is another kind of major project where we're looking for your input on in terms of where we're going to go with this reauthorization. My first kind of thought is probably not the best thing to put that on your plate when they're trying to do this report. My second thought is this report may actually provide me with a lot of the guidance that I'm seeking. So, I could curtail my presentation of it tomorrow, I have two hours on the agenda, maybe we can get through that in an hour and you have an hour tomorrow morning you could pick this issue back up. So I'm offering back an hour of my time tomorrow basically.

MR. RAINEY: Well, Glenn, I appreciate that. I mean part of what we're doing this whole meeting is exactly that, it's an attempt to balance across -- you know, hearing from the public stakeholders in Alaska as we talked about how much -- you know,

how important these services are up here, getting, you know, the presentations. Glenn's on the HSIA and Dave's on NGS. All of this stuff and the earlier talk about some of budget issues, all of this stuff I think feeds in and is relevant to the work we've been doing and what we want to say and have a marker out there hopefully and time for a lot of these events that are going to be picking up, the 200 anniversary, the HSIA reauthorization, all the things we're talking about. So I think we're onto something that's timely and appropriate. And so definitely that's what we want to do tomorrow is to, you know, continue to work on this. Yeah, did you have a comment?

MR. WHITING: Yeah, this is Larry Whiting. I think we ought to listen to his presentation on the HSIA and put this one off a little bit. I'd rather listen to the whole presentation on the HSIA reauthorization. But, you know, this is a good document, it's a start. You have -- give us at least -- no more than a week to get our comments back in, that's what I think. I don't pay attention to this thing a week after this is over with. You know, the e-mails come in, I glance through them, I read them, but I don't pay much attention to it more than a week after and more than a week before. And I'm retired.

MR. BOLEDOVICH: Larry, I -- Glenn again. I wasn't going to curtail the presentation itself, maybe just the discussion about it. Because I think your priorities for these programs are going to dovetail very well into that. But I'm certainly

going to be looking for some feedback from you folks a little bit. Anyway, I thought -- I know you're kind of -- you're scrunched for time and you've got this report on your plate, I was just going to (indiscernible).

CAPTAIN HICKMAN: Scott, I think.....

MR. RAINEY: Yeah.

CAPTAIN HICKMAN: .....I think Ann's probably cringing again about Larry wanting to go home and all of us send in our 15 different ideas again. I think we need to take the time and go over this punch list tomorrow as a group, not 15 individual thoughts after the meeting here.

MR. RAINEY: Well, absolutely. And we're going to do that as far as we can. As to what our.....

CAPTAIN HICKMAN: Can I -- yeah, and I think maybe our individual thoughts, Larry, might be on typical what we were trying to show, the individual examples.....

MR. RAINEY: Right, right.

CAPTAIN HICKMAN: .....thank you, of what we -- what -- the point we're trying to make. I don't think we really need to all go home and come up with 15 other ideas of how this should be presented.

MS. BOESE: Well, another existing idea, and I have no idea if this is appropriate or if it'll work. But we could, you know, kind of split up into a couple little work groups during some -- a period. If we determine maybe today, tonight, now,

that certain number of people will look at chapters one and two and the other ones will look at three and four and then have a chance to look at it tonight, talk tomorrow and then we'll have had some input in a smaller group than a large group and maybe it'll work a little better that way. Does that make sense?

MR. RAINEY: We've got -- on the schedule we've got till 5:30 before we interfere with any, you know, of our following activities. And I don't know if there's any additional public comment from what we had. But does the panel have the energy now to tack -- to jump in, as Ann's suggesting, on a couple -- either the most wanted or -- you know, I agree with what Bill's saying, those to me seem to be that's the area we need to focus on. We need to figure out if we're going to have this section on vision. We talked a little this morning about weaving in, you know, some of the other things. But we need to start filling in some fundamental things there or we could also discuss on the most wanted list if we wanted to talk about that. But we have the time here, I think we should probably try to get something out of it to get some momentum going.

CAPTAIN MYRTIDIS: Scott, I think if there are no other public comments the idea of smaller groups could be very productive. I think we should take a five minute break, everybody's tired, it's the end of the day, come back, quickly assign a few people to take one, two tasks and get done with that. I mean we cannot go back in the beginning over and

over....

MS. BOESE: No, no.

CAPTAIN MYRTIDIS: .....and over again.

MS. BOESE: No.

CAPTAIN MYRTIDIS: I'm personally tired of it.

MR. RAINEY: Okay, I agree. Andrew.

CAPTAIN MCGOVERN: Just one -- I agree with Minas but I think after we do the most wanted list because I think if you do the most wanted list first then everyone has the focus of where you're going to go with the rest of the document. If we cull this list down to whatever amount we do then that's kind of going to be the focus of the document, right? Does that make sense.

MR. RAINEY: Okay.

CAPTAIN MCGOVERN: So I would think if we do that and then -- you know, okay, then people have -- you know, that's what you're focusing on is these issues.

MR. RAINEY: Okay. All right. Let's do that, let's just take a quick five minute break then and then we can reconvene and take a look at the most wanted list.

(Off record at 4:56 p.m.)

(On record at 5:10 p.m.)

MR. RAINEY: Okay, seeing no -- we had some questions on that there were anymore public comments. There's no more folks here signed up so I -- what I'd like to do, a lot of talk at the

break, I know we're all tired. What I'd like to do is set this up to take the major sections tomorrow and get folks to take a look at a particular section, if you've got a section that you'd like to do. I'd like to kind of just talk about now who can provide -- who's interested in looking at a particular section and -- with regard to coming up with some specific hard examples that we talked about and then tomorrow morning after Glenn's briefing on the HSIA we can break up into those groups for each of the sections to capture what we can while we're here on people's ideas on those examples and then also take a look at the most wanted list. So what I'd like to do maybe is.....

DR. LAPINE: (Indiscernible - away from microphone).

MR. RAINEY: Okay. The issue is everybody is pretty well spent I think tonight and we're right up against our time where we've got to have time to transition into everything else that happens tonight. So I'm not in disagreement, I think we're just simply not really going to be able to get started on that from the comments I got at the break. So, yes, before we leave here we're going to discuss the most wanted list and get people's take on that. We're going to talk about specific examples in the section. And I have another idea. One of the things that happened in the draft and -- to get it to this point is that everybody had a start on it from -- kind of from a different thing and everybody meaning -- I got to be involved to try to pull some of my ideas together. We had some copy, NOAA -- Ann

took a start on some things. The whole suggested section here that's blank on the visioning thing, I would like to toss out my idea that I'm not sure we even want that extra session. To me it gives us -- it takes us back to the beginning and it seems to me if we flush out the sections that we have with specific examples and we have our recommendations on that and that all feeds into the most wanted list, I mean that tells a story I think of what the vision that we see or, you know, the near term deliverables. So to have a separate suggested section on, you know, the future vision and all of that to me sets up -- sets us up with a task that maybe we don't even need to go there because we're doing that by nature of, you know, flushing out the other existing things. So, I mean, again, I'd like to discuss that with you so we get this thing scoped. But those are the things, I agree with what Bill is saying as far as where we need to focus our attention, you know, while we're here. So I'm not saying we're not going to do the most wanted list but I think let's take a look at the sections, at who can take a look particularly at each of the sections and then tomorrow we'll talk about the most wanted list, ideas for the section and that. Andy.

CAPTAIN MCGOVERN: I wonder if we should agree on the sections before we divide them up.

MR. RAINEY: Okay. Well, I mean as we've got the titles. Basically -- everybody has it in front of them, right? So

that's -- the starting point will be what we have there. Okay. So we would have a separate discussion on the most wanted list to try to get that.....

MR. GRAY: The letter from the Chair is the first one, right? And then -- the letter from the Chair is the first thing, other than the title. And then you got the most wanted list. And I don't think -- are those sections? And then you've got critical connections and that goes on for several -- and then you've got hydrographic services. And I don't know what sections are and what chapters are in this. So I don't.....

MS. BOESE: I think if we break up into five groups of four, I think there are 20 people here, and basically assign. Group one will look at the letter and critical connections. Group two will look at hydrographic services starting on page six. So that tonight you can take a look at it individually, then at 9:15 tomorrow when Glen has so kindly given us his hour, an hour of his time, you can meet as a group, write some ideas down, present them to the whole panel. I'll take your sheet, I'll also be listening, and we can come to some -- we will have gone through it as a panel once. Do you think -- will that work, can we do that? Okay. So.....

MR. GRAY: (Indiscernible - away from microphone).

MS. BOESE: Yeah, let's -- without the most wanted group one will be pages two through five. So group one would be -- we can do it just around the table or -- who would like to work on

that, five people. One, two, and just -- I'm not going to write your names down, three. We need another person. Four. Andrew. Okay. All right. We're onto the next one. Okay, page six and seven.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

MS. BOESE: Okay. There's one on six and seven, there's two on six -- three, do I hear a four. Four. Great. Page eight and nine which is NOAA emergency response. That'll be -- okay, we need four people to work on page eight and nine that aren't working on another section necessarily. Who isn't in a group yet? Okay, one, two, three, one more. Four. Okay.

CAPTAIN ARMSTRONG: I still have a fundamental problem with the categories that we have here. I just don't think they match what we're trying to say. If we have 10 most wanted that doesn't say anything about resilient coastal communities what in the world do we have a section about resilient coastal communities for? Similarly we don't have any -- if we agreed earlier today that we were going to talk about the full scope of ocean mapping in NOAA, we don't have anything that's talking about resource support or habitat mapping or all of those other things that are involved in the integrated ocean and coastal mapping, we don't have a section on that. I just -- I don't think we're at the point of dividing up the sections yet, I think -- you know, maybe I'm alone but I don't think we got the

sections right.

UNIDENTIFIED MALE: I agree.

MR. RAINEY: All right. Then let me ask this then. Could everyone -- what we'll do, we'll start at the top with the most wanted list and we'll work it out until we've got a consensus and then we'll see where we are with that as far as if we need to change that. Okay? All right. And we'll do that as a -- in plenary so to speak and then we can break from there. Okay. All right. Okay, so if everybody then would focus on that, you know, to the extent we can tonight, and we'll pick up there in the morning and then we'll see where we are, we'll move forward.

CAPTAIN MCGOVERN: Scott, Andrew McGovern. Maybe real quick we could probably throw out a bunch of these -- even if we can't finalize the most wanted list now we could probably cull it. You know, as Bill said before, there are some of the things that are good, they're just not a most wanted. So maybe we could very quickly go through these and say, you know, before we get into the weeds these three can just, you know.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

MR. RAINEY: Okay.

MR. GRAY: Bullet number three, eliminate the backlog of critical hydro -- that should be one of them. Number four, five -- number six, expand existing real time tide, current, et cetera. The bottom one on that -- on the left, conduct full

bottom coverage in the federally maintained channel. Those to me are the three most important things that I feel should be done. I would add to that something and I don't know how to put it. But that somehow emphasizes -- as Elaine pointed out, there's really nothing in this whole paper about the recreational community and what we're going to do on that. But I think it should somehow appear in there, something they'd be able to relate to. Because I'm not sure that these ones that I think are the three most important are that important to the recreational community but there may be something else that is. Then things that I would be happy to dispense with is the second one on the first column, improve the efficiency of NOAA's contracting process. Well, sure, go ahead and do it, doesn't have to be a most wanted. I don't know where I come out on replace the aging fleet. But over on the right hand column, the first full one there, implement new surveying and mapping, so forth. I don't think that's that important. Increase investment in emerging mapping. That's pretty vague. Develop new and expanded partnerships to enhance -- that's pretty vague. I would either turn all those into one or just get rid of them for now because these are just do the job you're supposed to do. They're not things that I think are going to be big money, big ticket items which we really need money whereas those first three I pointed out, those things you really need some dough to do them. And that's what you're trying to do with this thing I

think. So that's kind of where I come out as a -- that's why I made the suggestion that I don't think we want 13 items in this thing. So that's a proposal, or the start of a proposal.

DR. LAPINE: I would take the three that Bill doesn't think are very important on the second column, the implement new surveying mapping, increase investment and develop new and expanded partnership and build one item out of those three.

MR. GRAY: Fine.

DR. LAPINE: That'll (indiscernible).

MR. DASLER: I agree with that. I was -- what I was going to add because the problem is we're collecting more data than we can process and get on the chart and we do need to address that.

MR. RAINEY: What if, folks, if we went and you numbered these, you prioritized them and you crossed out the ones that you didn't think merited a number and then we can consolidate that tomorrow rather than getting everybody's kind of variation. And if you have something that is not on the list.....

DR. LAPINE: Scott, I don't think we need to eliminate any, I think they need to be folded in.

MR. RAINEY: Okay. But.....

DR. LAPINE: Replace the aging fleet, improve the efficiency of contracting all contributes to eliminating the backlog of critical hydrographic services. And same thing with the shoreline one. So what we need to do is build four or five overreaching thoughts which then we could have four or five

sections in here that address each one of them. And we don't have to throw away anything, kind of got to rearrange it a little bit.

MS. BOESE: Can we get those four -- can we work and consolidate and get some wording down for, you know, folding these three together, could we do that tomorrow at 9:15?

UNIDENTIFIED MALE: I think we could do that maybe even this evening.....

MS. BOESE: Okay.

UNIDENTIFIED MALE: .....in those groups you were talking about.

MS. BOESE: That'd be great.

MR. GRAY: I don't want to talk anymore tonight.

UNIDENTIFIED MALE: Speak for yourself, huh?

MR. GRAY: You can have the room to yourself. We're going to the (indiscernible).

UNIDENTIFIED MALE: Just following.....

MR. SKINNER: I don't know if this is on, I guess it is. I mean I'm happy to take a stab at putting together like the top five based on -- and five, there's no rhyme or reason to it, it's just a good number, based on what Bill and Lou have said. And people can start with that tomorrow if you want.

DR. LAPINE: So -- this is Lou again. Tom, are what you saying is the three that Bill suggested plus the amalgamation of the three I suggested plus recreational boating are the five?

MR. SKINNER: I think -- well, I would have taken the three that -- Bill's three from the right, one from column A, three in the first column and then combining the three that you and John were talking about and then one that talked about the other uses of this data as the fifth recommendation and then that section we would address the things that I think Andy was talking about. That we don't have the, what is it, protecting communities or resilient communities and emergency response. We'll be able to address how this data could be used in other applications but the top four would be navigational related. And if I had heard someone make this offer I would say yes and run for the bar.

MR. RAINEY: That sounds fine Tom, thanks. Andrew.

CAPTAIN MCGOVERN: Yeah, I think, you know, you can -- I mean if you took that -- the one bullet, the first bullet Bill said, eliminate the backlog of critical hydrographic surveys. What fits under that? Bullet number one, bullet number one, bullet number four, bullet number five. And on the second column the implementation of surveying and those three that Lou mentioned before, they all kind of fit under eliminate the backlog to critical hydrographic surveys, right? Every single one of those fits under that one bullet. That's how you do it, take all those things. Yeah, so maybe we -- you know, that's a big bullet, eliminate the backlog of hydrographic surveys by, you know, all those things and then -- you know, a couple of the

others and you could -- I think five is probably a good -- you know, you could just say, you know, this is the five most wanted and we could fit everything we want into five -- they may be bigger bullets but there'll be five bullets. Then you can expand them back in that -- maybe the five -- maybe the sections, we got five sections that match to five most wanted and those five sections then flush out. You know, so maybe we don't have to say it, maybe we got to think a real catchy -- eliminate the backlog of critical hydrographic services, that's it. And then the section takes all those other bullets and brings them in and.....

MR. SKINNER: I think -- one of the ways I thinking of it was maybe just have -- I like eliminate the backlog of critical hydrographic surveys. And then sort of an indentation of like, okay, you know, this is what you need to do to do this, very, very short, and then go on to the next one so that if someone is just looking through it they're like, okay, here are the main points. If they're like, well, I don't really understand that there's something that says this is really what we mean here. But I think it's really important that -- to limit the number of most wanted because then it sort of -- the message gets lost in the sauce.

MS. BOESE: I think that would be just excellent. We accept the offer.

UNIDENTIFIED MALE: Well, I'm not voting but I suggest you

take up this offer.

MS. BOESE: Absolutely.

MR. RAINEY: Okay. Okay, Barbara has an announcement for us for tonight.

MS. HESS: (Indiscernible - away from microphone).

UNIDENTIFIED MALE: What's the dress code for tonight?

CAPTAIN BARNUM: Consensus here that we dress down, business casual, so we can eliminate the ties if you so wish.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

CAPTAIN BARNUM: You're welcome to wear it. I'll have the same outfit on.

UNIDENTIFIED MALE: (Indiscernible - away from microphone).

CAPTAIN BARNUM: And Barbara already talked about the logistics for tom -- or tonight for the steakhouse. One other thing, I was talking to Jack, it rung a bell about the priorities. And one of the points our Secretary, Secretary of Commerce, of which this report may be provided to him, and that is too many priorities are no priorities. And so that's one of his points. So if we want this to resonate with him I think you're on the right track.

MR. RAINEY: Okay. Thanks very much.

(Off record at 5:30 p.m.)

TRANSCRIBER'S CERTIFICATE

I, Nicolette Hernandez, hereby certify that the foregoing pages numbered 2 through 265 are a true, accurate and complete transcript of proceedings of the National Oceanic and Atmospheric Administration, Hydrographic Services Review Panel, held August 14, 2006 at Anchorage, Alaska, transcribed by me from a copy of the electronic sound recording to the best of my knowledge and ability.

9/6/06
Date

Nicolette Hernandez