Hydrographic Services Review Panel

Public Meeting

September 23-24, 2009

Radisson Hotel Duluth Harborview

505 W. Superior Street Duluth, MN 55802

~ A G E N D A ~

Wednesday, September 23, 2009

Introduction and Call to Order

Edmund Welch, *HSRP Vice Chair*

CAPT Steven R. Barnum, *HSRP Designated Federal Official*

NOAA Administration Update - John H. Dunnigan, *Assistant Administrator, National Ocean Service*

Accelerating Data Integration into Charts - Jeffrey A. Ferguson, *Office of Coast Survey*

Panel Discussion

Public Comment Period

BREAK

Updates to HSRP Most Wanted Hydrographic Services Improvements report - Edmund Welch

LUNCH

Regional Stakeholder Panel:

Richard Morey, *Minnesota Department of Transportation*

Morris Luke, *Wisconsin Department of Transportation*

Scudder Mackey, *Habitat Solutions NA*

Panel Discussion

BREAK

Regional Stakeholder Panel, continued

LT Doug Jannusch, *United States Coast Guard*

Don Goltz, *Army Corps of Engineers*

Panel Discussion

NOAA Tri-Office Updates (NGS, CO-OPS, OCS); general and specific projects:

Juliana Blackwell, *Director, National Geodetic Survey*

Michael Szabados, *Director, Center for Operational Oceanographic Products and Services*

CAPT Steven R. Barnum, *Director*, *Office of Coast Survey*

Arctic - Ashley Chappell, *Office of Coast Survey*

Panel Discussions

Public Comment Period

Adjourn For The Day

Thursday, September 24, 2009

Call to Order and Brief Recap of Day 1 - Edmund Welch, *HSRP Vice Chair*

Contracting Policy Revisions — Roger Parsons, *Office of Coast Survey*

Panel Discussion

Public Comment Period

Panel Deliberations

BREAK

Discussion of the Five Most Wanted revisions - Edmund Welch, *Vice Chair, HSRP*

Arctic Seafloor Mapping - Andrew Armstrong, *NOAA/ University of New Hampshire Joint Hydrographic Center*

LUNCH

Great Lakes Shoreline Mapping - Michael L. Aslaksen, Jr., *National Geodetic Survey*

Panel Discussion

Preview of State Geodetic Advisor Study Findings - Douglas L. Brown, *National Geodetic Survey*

Panel Discussion

NOAA Update on Status of “Five Most Wanted” areas; recent HSRP recommendations - CAPT Steven R. Barnum, *Director, Office of Coast Survey*

Administrative Details

Interim Chair Selection

Meeting Planning for FY10

Final Issues

Meeting Adjourns

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

[The public meeting was called to order at 8:33 a.m., September 23, 2009.]

MR. WELCH: Good morning. We'll call this meeting of the NOAA's Hydrographic Services Review Panel to order.

I'm Ed Welch, a panel member, and I'm your Acting Chairman for today because our Chairman, Tom Skinner, is having his shoulder repaired. We wish him all the best. I think, perhaps, I'll have Steve Barnum go through some of the particulars about the administrative details.

CAPT BARNUM: Good morning, and welcome to the Hydrographic Services Review Panel meeting here in Duluth. I have a couple of logistical details I would like to go through. Evacuation in case there's an emergency. The evacuation directions for the Radisson here. In case of emergency, please exit the meeting room doors and go to the left. Got to the exit sign and walk to the outside. The restrooms are located out the meeting room doors, to the left, down the hall, behind the stairwell. So that's in case of emergency, God forbid, and also if you need to use the restrooms.

A couple of other things. I would just like to remind the panel members as as well as members of the public the mission and goals of the Hydrographic Services Review Panel, HSRP, is governed by the Federal Advisory Committee Act, and was established by the Hydrographic Services Improvement Act Amendments of 2002. The 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: National Geodetic Survey, Center for Operational Oceanographic Products and Services, and Office of Coast Survey.

The panel membership consists of 15 members that are nongovernment employees appointed based on their particular expertise. Members of the panel do not represent the organization or the entities they are employed by, but again, they are on the panel by the mere fact of their particular expertise. The members are appointed to serve 4-year terms. There are three nonvoting government employee members: Andy Armstrong, Co-director of the Joint Hydrographic Center; Juliana Blackwell, Direct of the National Geodetic Survey; Mike Szabados, Director of the Center for Operational Oceanographic Products and Services. There is one additional nonvoting member, that is Andy's counterpart from the University of New Hampshire, the Co-director of the Joint Hydrographic Center.

Our meetings are required to be held minimally twice a year. And I'd just like to remind folks that when they speak, please identify yourself and speak clearly for the court reporter. So again, be kind to the court reporter. Thank you.

MR. WELCH: Thank you, Steve. If I could remind everybody, let's turn off our cell phones or put them on mute. Also, our court reporter is Jennifer. Thank you for your help today. As is traditional, why don't we go around the table and introduce ourselves

and as soon as we are able to do so, then we'll ask all of our nonpanel members and guests to introduce themselves with their names and affiliations. So Matt, can we start with you?

MR. WELLSLAGER: Matt Wellslager, Program Manager, South Carolina Geodetic Survey.

MR. DASLER: Jon Dasler, Director of Marine Services at David Evans and Associates; a NOAA contractor.

DR. JEFFRESS: Dr. Gary Jeffress, I'm a Professor of Geographic Information Science at Texas A&M University in Corpus Christi, and Director of the Conrad Blucher Institute for Surveying and Science. We run the Texas Coastal Ocean Observation Network.

MS. DICKINSON: Elaine Dickinson. I'm with BoatU.S. We have 600,000 members who are all recreational boaters.

MR. SZABADOS: Mike Szabados, NOAA, Director of CO-OPS.

MR. ARMSTRONG: Andy Armstrong, the NDAA Co-director of the NOAA University of New Hampshire Joint Hydrographic Center.

MS. ARENSON: Rebecca Arenson, I'm the coordinator for the panel.

MS. HOUSE: Tiffany House, Project Analyst at NOAA.

MR. WELCH: Ed Welch, Panel Member. I do legislative work for the U.S. Passenger Vessel Association. I'm in Alexandria, Virginia.

CAPT BARNUM: My name is Captain Steve Barnum. I'm the Director of the Office of Coast Survey and the Designated Federal Official for this panel.

MR. DUNNIGAN: Good morning, I'm Jack Dunnigan, NOAA's Assistant Administrator for Oceans and Coasts.

MS. BLACKWELL: I'm Juliana Blackwell, Director of the National Geodetic Survey.

MR. MCBRIDE: Adam McBride, Port Director, Port of Lake Charles, Louisiana.

MR. WHITING: Larry Whiting, retired partner in Terra Surveys; a NOAA contractor.

CAPT LOWELL: Dick West, retired Sailor.

MR. DUNNIGAN: You never retire from sailing. You're always a Sailor.

CAPT MYRTIDIS: Minas Myrtidis, Vice President of Fleet Regulatory Compliance for Norwegian Cruise Line and Corporate Environmental Compliance Officer.

MS. CHAPPELL: Virginia Dentler, CO-OPS support staff for HSRP.

MR. FERGUSON: Jeff Ferguson, Chief Hydrographic Surveys Division, Office of Coast Survey.

MR. WELCH: Rebecca, we're introducing everybody else -- I mean, Ashley, I'm sorry. So if you could probably speak loudly for the reporter.

MS. CHAPPELL: Ashley Chappell, Office of Coast Survey admin support, HSRP.

UNIDENTIFIED MALE: Steve Chile's, I'm a Director at Compass Data.

UNIDENTIFIED MALE: John Ellingson, National Geodetic Survey. I'm the advisor from Wisconsin.

UNIDENTIFIED MALE: Rick Morey, Minnesota Department of

Transportation.

UNIDENTIFIED MALE: Hi, I'm Dave Zenk. I'm the National Geodetic Survey Advisor for the State of Minnesota.

UNIDENTIFIED MALE: I'm Brian Link, Great Lakes Navigation Manager for the Office of Coast Survey.

UNIDENTIFIED MALE: I'm Doug Brown, I'm on the National Geodetic Survey Director's staff.

UNIDENTIFIED MALE: I'm Tom Newman, I'm President of TerraSond, one of the NOAA contractors.

UNIDENTIFIED FEMALE: I'm Katie Mildon, I'm returning Program Manager at TerraSond.

CAPT LOWELL: Captain John Lowell, I'm the Chief of the Marine Chart Division of the Office of Coast Survey.

UNIDENTIFIED MALE: Karl Keininger, Maritime Association Port of New York, New Jersey.

MR. ASLAKSEN: Mike Aslaksen, Chief of Remote Sensing Division, National Geodetic Survey.

MR. WELCH: Thank you to everybody. Welcome. We passed over quickly Rebecca. She indicated that she was now the new NOAA staff person doing the primary work for this committee, but we do want to welcome Rebecca Arenson to her first meeting. Thanks for all your work up here.

We do ask all the members of the public that are here to sign in with their names and affiliations. I think there is a chart on the table. If not, we'll pass this one over there.

Okay. Thank you. Are there any other administrative matters that need to be attended to?

We are short several of our panel members. Our three pilots are not here. I think there may be some message to that perhaps. Actually, in addition to Tom and his surgery, Sherri Hickman is going through a medical procedure too, so we wish them both well.

Okay, without further ado, we're going to recognize Jack Dunnigan, the Assistant Administrator of NOAA for the National Ocean Service to make some remarks. Jack? Thank you.

MR. DUNNIGAN: Thank you, Ed. Welcome everybody. It's good to be here. This is my first trip to this part of Minnesota, although I was born in St. Paul. There's still a lot of Dunnigan's down there. So it is home in a way, but I don't think I've ever been on Lake Superior before. It's really quite impressive. It's interesting to see how much -- from the top of this building and you look down over the bridge with the back bay and the long causeway how much this looks like Florida and has a really interesting feel to it. I guess February's the answer there, right. Okay.

I did some traditional things last night. Some of you may remember Heather Stirratt who used to work for me and she's now the NOS Great Lakes Liaison. She's over in another hotel this morning with the Great Lakes Coastal Managers who are having their annual meeting here in Duluth this week as well. She said that one of the things that you have to do is get your toes wet in Lake Superior. So after dinner last night we went walking along the shores of the Lake

and found a place that wasn't too rocky and I was able to get down there and get my shoes of and my pants legs up and she's got a picture of me with my toes in Lake Superior. So I've checked that box on my bucket list.

It's been an interesting couple of months. The work that we do was sort of brought home very personally to me when I showed up at my sailboat one day and I had to almost climb up to get on it. I asked Mike Szabados, "What's going on here?" and it turns out he says, "You haven't noticed that the tides all along the Atlantic coast have been two feet higher for the last month?" So here in our materials today we actually have the report that talks about the elevated residual tides that occurred for a lot of reasons. All of my friends wanted to say this is climate change, right, this is climate change. Yes, the climate is changing; but, no, we find out that this is sort of a perfect storm of three or four things happening at the same time. I think it really sort of helps to bring home in a real life circumstance how some of the things we do affect us.

I want to just brief you a little bit this morning and then answer any questions you might have about some of the things that are going on at NOAA and in Washington and with our budget and with the Ocean Service. Since the last time we met, the new NOAA management team has fleshed itself out a little bit, but not a whole lot. They're beginning to get traction and deal with issues that they really care about. They are, however, still hampered by the fact that they only have about half of their politicals on board that are coming

in. I think the idea is that they want to bring in a whole bunch of them all at once.

So we have an Under Secretary, Dr. Jane Lubchenco, and we have a Chief of Staff, someone who is familiar to many of us, Margaret Spring. It's really great to see her come back into government. She was on the Hill for a long time, then went to work for the Nature Conservancy, and is now the NOAA Chief of Staff and is beginning to take hold real well.

Our old friend, Paul Sandifer who actually works for us is on a detail to be the Chief Scientist. That wasn't a position we had in the last Administration, but it is one that is on the books, it's Senate confirmed. If you know Paul, you know he'll never move to Washington, D.C. I used to say he'd never leave South Carolina, but it turns out he and his wife have bought themselves a home in the mountains of North Carolina. But he's with us about four days a week and doing a great job. I like to kid him that the one day a year that he still works for me is the day I do his performance evaluation and all the rest of the time I work for him.

We have a communications director in NOAA right now who is a very exciting guy, Justin Kenney. Justin worked for NOAA for the Sanctuary Program for a long time, then went to work for the Pew Oceans Commission as their outreach and communications specialist and stayed with Pew for a number of years. Then a couple of years ago, he and his wife -- and his wife used to work for me -- moved to North Carolina so she could have a job. About a year later the transition

happened and Jane offered him this great opportunity to come back to NOAA. Justin and his wife, Amy, are in the process of coming back up. Justin's a real a real creative and exciting guy. He really understands that the communications is not about press releases, it's about messaging, it's about branding, it's about getting the story out, making sure people understand the good work that we do for them.

So that's sort of the high level -- we have a new ledge director, but we still don't have a general counsel, and there's still some discussion downtown about how many positions are we going to have. We don't have an assistant secretary. We don't have either of our deputy assistant secretaries, and they are sorting out how they want their new team to look. That's going to take a while.

Frankly, my view is, we're impatient people. If you think back 8 years Admiral Lautenbacher didn't even show up until December and he took about a year to get his team together and his review of the organization going. So, I counsel our staff to be patient, give them their time, and let them develop the cadence that they'd like to have.

The big issue that is being worked on right now in NOAA really does relate to climate and the development of a climate service and NOAA's role in moving climate issues forward. It was interesting to me that the State Department asked Dr. Lubchenco to be the head of the U.S. delegation that went to Geneva three weeks ago to talk about global approaches towards developing climate services. And I believe she's going to be very actively engaged when the Copenhagen meeting

comes for the next big round of climate negotiations that will be happening at the end of this year.

So all of those issues right now are sort of dominating. The other big one is a Ocean Policy Task Force. Since we last met, President Obama put together a Task Force and gave them two 90-day jobs. The first one was to develop a draft ocean policy and a governance structure for federal agency collaboration and an implementation plan. That was supposed to be done in 90 days, and 90 days later it was put on the President's desk -- last week. Last Thursday it was released to the public, and this is it [holds up booklet]. I think Rebecca's made it available to everybody. I strongly commend this to your attention. It's really sort of going to be the foundational approach that the new Administration wants to take towards elevating ocean policy and making it vibrant and alive as a part of our government.

The second 90 days has already started and that is focusing on developing a framework for Coastal and Marine Spatial Planning. Marine Spatial Planning has become, in many ways, the latest issue of interest. A couple of years ago it was ecosystem based management. This is sort of an evolution of that because it certainly involves ecosystems. And remember when we use the word "marine" we always mean including the Great Lakes, that's a major part of our reach out. That will be worked on. NOAA will be very actively engaged. The Ocean Service, we expect, will be very actively engaged as that develops over the next 90 days.

So sometime around the first of the year we'll be seeing the product that comes out of that as to how the government wants to move forward with Marine Spatial Planning. There's a whole series of public outreach meetings that have been held and are continuing to be held this week -- I think, tomorrow -- or today is it, Dick?

RADM WEST: No, tomorrow.

MR. DUNNIGAN: Tomorrow there is a meeting being held in Providence. There are a number of more meetings focusing both on this interim document -- this draft document, as well as the concept of Coastal and Marine Spatial Planning and how to move forward with that. So a lot of activity going on and, frankly, that is where the NOAA leadership has been putting its attention over the last 3 months. Both on the Ocean Policy Task Force, as well as dealing with issues of climate and focusing on how to move forward with a climate service.

I think there are a lot of other issues, certainly Dr. Lubchenko's been very actively engaged in promoting the idea of catch shares in fisheries, so she's been getting some good and bad press for doing that. A couple of others, but those are really the big ones. I think they recognize that there's a lot of other things they want to get to eventually, but they've clearly prioritized the things they want to focus on.

At the department level, they're having some luck now get moving. We finally have a Deputy Secretary, James Hightower (ph). He's been on the job now for just less than a month, so he's -- we're still figuring out what his relationship with NOAA is going to be.

Secretary Locke has been on board now for a number of months and I had, for the first time ever, the chance to spend a good quality day with the Secretary of Commerce when I accompanied Secretary Locke down to Norfolk for the public announcement of the American Reinvestment Recovery Act funding that had been made available for hydrographic surveys. It was a wonderful event. The Secretary is enthusiastic. I can tell you he is a really nice guy, very down to earth and very genuine. Having been the Governor for the State of Washington for two terms he certainly understands maritime transportation and the critical role that it plays with the interest that they have in the ports of Seattle and Tacoma.

But a really good guy and Ed Welch had said to me in an e-mail, you know, he wanted to get a chance to meet the Secretary, and as the press conference was winding down I grabbed Ed and we went down on the dock where the survey vessel was there -- thank you, Jon Dasler. I put Ed within two feet of the Secretary and I said, "This is as much as I can do. It's up to you now." True to his own messaging and his fidelity to you all, he did get himself -- he introduced himself to the Secretary. They had a brief time. The only part of the conversation I heard was when I could hear the Secretary talking back to Ed, saying, "Oh yeah, the Five Most Wanted, I've read that report. That's really good." And I thought, "Wow, I didn't brief him on that." I don't know where he picked that up, but he's obviously a quick study and has some orientation towards what we do. So, thank you, Ed. I thought it went very well.

The Congress. We all read newspapers and we probably don't read enough of them for the newspapers to stay in business for the long term, but at least for the moment -- whether it be the newspapers or the Internet, you're hearing the same things that we're hearing. Healthcare is the dominating issue that's going on. There's a continuing sense that the appropriations committees want to get their work done this year. They will not get it done by the end of September so there will be a continuing resolution, but maybe not a really long one I think is what their hopes are. So beyond that, the Senate has not yet passed our appropriations bill, but the Senate committee has had it out for a long time. This is just a matter of being a waiting game now, but there does seem to be some desire on the part of Congress not to allow this to trickle on as it has the last couple of years well into the new calendar year.

So we are continuing to work on our budgets. Our '09 is about ready to wrap up. We've done a really good job in the Ocean Service of executing that budget. We will execute more than 99 percent of our budget now for the second year in a row, which is pretty good especially given some of the history that we had. The '10 budget, as I said, we're still waiting for the Congress to tell us what that's going to be. For the '11 budget, it has been to the department, it has been passed back. The department has now submitted that to OMB, so that continues to go back and forth through the internal administration budget and that will be out in the first week of February.

Ocean Service. Ocean Service continues to be a great place for service and fun. I'd like to just remind you of some of the website and communications things that we've done. We're trying to bring ourselves into the new millennium. You can actually follow the Ocean Service on Facebook and Twitter. We're trying to use all of the social media things that we can and people have been fairly well impressed with our web presence. So I encourage you to go look at that. See if you can get a sense as to what we're doing and have any suggestions as to how to improve it.

One of the things that I've tried to do is to provide a stronger focus on the people that work for the Ocean Service. I turned my computer on this morning and we have this special feature that comes right up on the front screen called "NOAA's People" and there this morning was Mike Aslaksen as latest of NOAA's people that we're highlighting. So glad to do that and I think it is a good outreach for us.

We've had some personnel changes in the Ocean Service. The Director of the National Centers for Coastal Ocean Science, Dr. Gary Matlock has gone over to another part of NOAA, the PPI, Programming and Planning. He's on a long-term detail. So the acting Director of our Science Program is Dr. Russell Callender. This is a very challenging area because our science programs are the ones where our operational footprint is a lot larger than the money that Congress gives us. And so what we're going to be facing over the next couple of years is trying to figure out a way to reduce that footprint so

that we have a more responsible financial profile for being able to do science in NOAA and it means we're going to have to focus on a lot of priorities.

Our Technical Director, Dr. Marie Colton, has been selected to be the new Director of the Great Lakes Environmental Research Laboratory in Ann Arbor. And that will start for her on October 11. She's been there for most of this year on a detail, but it's great for Marie. It's a win win all around, and I'm really proud of her.

My Deputy is Dr. Bill Corso. I think you've all had a chance to meet him once or twice. Bill is going to replace Marie as the Technical Director and we are recruiting for a new deputy assistant administrator at the Ocean Service. So that's on the street. It closes November the 13th if you have any ideas or suggestions for people who would be good for that job, please encourage them to go to Jobs USA and look up the vacancy announcement. It's not preselected and we're looking forward to having a solid panel of candidates to do that job.

In the Office of Coast Survey, I just want to make sure everybody is aware that this is probably the last of these meetings where Captain Barnum will be sitting at this seat. We may grab him back for a meeting or two in some other capacity, but Steve is proceeding on to the richly earned next phase of his life together with Jane. He'll be retiring at the end of the year and the new Director of Coast Survey will be Captain John Lowell who is with us who is the Marine Charting Division Director now. John will become

the Hydrographer of the United States. So we certainly appreciate the great service -- I really appreciate the great service that Steve has given us for a long time. We certainly wish you and Jane well as you move forward.

I want to make sure that people know that a colleague of ours got hurt doing the job. Mark Luther (ph) from the University of South Florida was servicing equipment associated with the Tampa Bay PORTS® system one day and got himself caught between a boat and a piling when some other boat came by and caused a big wake and he was in the middle. He is recovering fine. He is seriously hurt, but he is recovering fine. He's actually back on e-mail a little bit and he's doing as well as can be expected. But if you know Mark, he is a great guy and a wonderful partner for us to work with.

The last thing I want to say is that I don't get an opportunity very often to spend some time with a lot of the field staff, you know, the Ocean Service business model has most of our folks in Silver Spring. You wonder sometimes why we have Ocean Service people in Arizona and Colorado, and it's really because of our great geodesy program and our collaborative efforts with partners in state government, usually state transportation agencies. So it's good to see John Ellingson and Dave Zenk here from the geodesy program and also Brian, good to see you again, thank you for coming. It really is a nice tribute to the way that we do business partnering, working with people and finding ways of collaborating and leveraging. Good to meet you guys and thanks for coming.

Ed, that's all I have for now. I'd be glad to answer questions.

MR. WELCH: Thank you, Jack. Do folks have comments or questions that they would like to discuss with Jack?

[No response.]

MR. WELCH: Okay. You're not going to get off completely easy though. I'm sure they'll come subsequently.

MR. DUNNIGAN: I'll be here for the duration.

MR. WELCH: I'd like to announce that we're going to have one schedule change from the agenda. If you look down on today at 11 o'clock we're supposed to start the discussion of updates to the Most Wanted Report and we are going to defer that until tomorrow to give ourselves time.

MS. ARENSON: It is the 10:45 one.

MR. WELCH: Okay. Thomas Skinner, where are you when we need you? We're going to defer the status of the Five Most Wanted areas, and that will be done tomorrow. So we'll start the update discussion a little bit earlier today.

Is that okay, Rebecca?

MS. ARENSON: Yes.

MR. WELCH: Our first large topic of conversation today is the topic of accelerating data integration into charts. This is something we have had some discussion about before and there are some challenges that have been debated and discussed and people want to debate and discuss them a little bit more. So we're going to start off with Jeff

Ferguson. So, Jeff, the floor is yours.

MR. FERGUSON: Good morning. I'm here to talk about accelerating data integration into charts including the discussion on the role of hydrographic certification. [Next slide.]

So to talk about getting data to the chart, I want to just give a really brief overview of the process of how we do that. A current status of how we're doing and then segue into certification and how that may or may not play a role in getting data to the chart. [Next slide.]

Within HSD and OCS we talk about the whole ping to chart process. So from ping to chart, the ping being the multibeam or echo sounder pinging in the water, collecting the data, and, of course, the chart is the final product given to our customers. I break it down into three big chunks.

The first chunk is the hydrographic data is being collected. So that's either our in-house platforms or our contracting partners collecting all the data. They then have to do some field processing -- and when I say "field processing" that means literally be in the field where they bring it back to their home office, process all the data, get rid of the flyers, write the reports and package up the deliverables. It then comes to the Hydrographic Survey Division for step two where we do a verification and quality assurance of the data, and most importantly we create a compilation product, which is we reduce all that data down to a chart scale representation of just the soundings, racks, obstructions, and shoreline features that will

end up on the chart. We then deliver that to the Marine Chart Division who actually updates the chart products and deliver it to the public. So we have three big steps there to get the data from the field all the way to our final customers.

So all hydrographic data right now comes through HSD for validation and compilation before it goes to the chart. Whether it's our NOAA platforms, whether it's our contract partners, even if it comes from other federal agencies like the U.S. Navy, U.S.G.S, state and local governments. Any hydrographic data comes through HSD for us to do our analysis it.

The only exception is the Army Corps of Engineers. They have authority over the maintain channels, so when they do their post-dredge surveys, those surveys go directly to the Marine Chart Division and they update the channel tabs on the chart because the Corps assumes the liability and has authority over those areas. So that's the only exception. All other hydrographic data comes through HSD. [Next slide.]

So the question we're talking about ping to chart times, why has it historically taken a long time? Here's a chart showing the last 40 years of hydrographic surveys that have come into our system. Back in the 70s, NOAA had a dozen hydrographic survey vessels out there working. As we approached the 80s, ships started to get decommissioned and/or converted to other uses. We bottomed out in the mid-80s. Early 90s, GPS came on line, so our field work became more efficient. Late 90s our contracting program started to take off. The

last few years we've had marine debris supplemental and other funding sources that gave us more contract work and all the field units are much more efficient due to, again, GPS, high speed sidescan sonar, and the whole host of modern technologies that are out there.

So the number of hydrographic surveys coming into our system has increased dramatically over the last several years. Just as a side note that big flyer in 2001 was when the U.S. Navy dumped about a hundred surveys on our doorstep. But in general, due increased contracting dollars and increased efficiencies the number of surveys coming into our system has increased, so HSD just had problems keeping up with this huge influx of data. Prior to 2008, we just had more surveys coming in the door than going out.

MR. WELCH: Jeff, if you could wait for a second, Admiral West has a question.

MR. FERGUSON: Absolutely.

RADM WEST: Do you want to take questions as you go?

MR. FERGUSON: However you want to do it.

RADM WEST: I was just curious as to where the Navy surveys came from and why?

MR. FERGUSON: They had a big initiative. It was a lot of LIDAR data through the Hawaiian Islands and Pacific Islands and also some -- they sent some of the ships out there to do some multibeam surveys as well. They had some very specific Navy requirements for some exercise areas and for Navy ports that we weren't handling for them, so they just went and did the work, gave us the data so we could update the

charts.

MR. WELCH: Jeff, this may be jumping the gun on our agenda a little bit, but either in the context of this chart or later, can we breakdown number of surveys coming in from -- under contract as opposed to NOAA assets?

MR. FERGUSON: I don't have that number in front of me. I could probably get it for you even later today.

MR. WELCH: It might be useful for subsequent discussion here.

MR. FERGUSON: Okay.

MR. WELCH: Thank you.

MR. FERGUSON: So, obviously, with this increase of data HSD had to modernize our processes, which we did. The turning point was really in 2008 when we finally had more surveys going out than coming in. In 2008 we had 151 surveys come in, 185 go out. For 2009 we estimate we're going to have 165 come in which is a new record, but we're going to have 275 go out. So we're making really good process in terms of reducing our inventory and the resultant ping to chart times.

As another side note, even when our ping to chart times were long it is important to note that any danger to navigation that was found by the field unit or during initial processing went straight to MCD. So someone's in the field surveying, they find a wreck that's not on the chart, that information goes directly to MCD, they notify the Coast Guard, the local notice to mariner goes out, and everybody updates their chart. However, the more general changes we're taking

several years to get to the chart because of our backlog [Next slide.]

MR. DASLER: Just a comment on danger. That actually is another way that data can get on a chart that's maybe outside the Corps of Engineers or NOAA; right?

MR. FERGUSON: Yes.

MR. DASLER: Dangers can come from a variety of sources, so that anybody who detects a danger, there's the ability to get that on the chart?

MR. FERGUSON: Absolutely.

MR. WELCH: Let me remind everybody to identify yourself when you make a comment, please. Thanks.

MR. FERGUSON: So sitting here today, HSD now has the processes in place to handle the flow of incoming surveys; however, it makes our job a lot easier if the survey data received follows our specs and deliverables. Those specs and deliverables are available online so anybody can see them. When we get data in other formats that we may not be familiar with, it just really slows down the process because we have to figure out how to convert it.

DR. JEFFRESS: Jeff, is all the data you get now digital? Do you get analog stuff anymore?

MR. FERGUSON: It's all digital. Occasionally we'll get some supplementary reports or data acquisition logs, but basically it's all digital. [Next slide.]

So looking at the HSD part of our ping to chart times, the pink line on the bottom is the actual hands on number of days it takes

to get surveys through the process. The blue line is the total ping to chart time. The difference between those two lines is the time that the survey is just sitting on the shelf in the queue waiting for someone to work on it. So because our inventory is dropping, those total ping to chart times are dropping dramatically. Over the next year or two, I expect those lines to continue to converge and we'll basically have zero queue time and be keeping up with all the surveys coming in. [Next slide.]

So, again, looking at the the whole ping to chart time, historically the largest component of the total time was this queue time, the time that the survey is sitting on the shelf waiting for someone to work on it. Due to the decreases in our inventory, the largest component of that total time is actually now the field time. So the hydrographer's in the field collecting the data, they collect that last ping, the ships come to the shore. All the field work is done, they take all that data to the office. All that's the field time. They're now processing the data, writing their reports, and then deliver it to HSD. So that whole field time is now the largest chunk of our ping to chart time. So we need to start working with the NOAA field units and our contract partners to see how we can shorten up that timeline.

It's important to note that this isn't just a NOAA problem. In talking to our international partners around the world, everybody is having this similar type of ping of chart time. How do you get the data to the chart promptly. At the Shalick's Survey Conference last

year we had a lot of international people there to talk about this topic. At the hydro conference we talked about it some more, so this is kind of a global problem that everybody is dealing with. [Next slide.]

Then, of course, the last step is getting this product -- getting the hydrographic deliverable to MCD so they can update the actual charts. So when we talk about the ping to chart time, when does the clock actually stop; when the ENC is available, when the paper chart's available, when the print on demand is available, when all three? So we're still struggling with that a little bit right now. We'll have some short-term bottlenecks right now as MCD continues their transition with NCS II, but I'm sure you'll receive more updates on that at future meetings. That's beyond the scope of what I was going to talk about. [Next slide.]

So that's the kind of the ping to chart process. Again, there's the three big pieces: the field time, the HSD time, and then the MCD time. Historically, HSD was the big bottleneck. We think we've got those processes under control, so now we need to start looking at the other two pieces, the field time and MCD's transition to NCS II.

So now hydrographic certification, how does that play into all of this? Currently there's no legal or technical requirement for anybody to have a hydrographic certification in the work we do. The government positions are filled competitively, but there's no requirement for anybody to have a certification. Certainly, if two

people are competing for a job and one of them does have a certification that may fall into play on the selection board, but there's no legal or technical requirement.

Same way when we select our contractors, we use our architect engineering qualification based selection process. There's no requirement that anybody on that firm or team have a certification, but when we're reviewing qualifications we certainly take that into account and a firm with a lot of certified hydrographers will kind of get some bonus points in the same way that someone -- a firm who has a lot of master's degrees in hydrography or advanced teaching would as well.

As we talk about certification it's important to note that in my viewpoint, a certification process would not remove the need for HSD to validate a hydrographic survey or produce that final chart compilation product that we deliver to MCD. [Next slide.]

So what certification programs are out there? The biggest one is probably the ACSM, the American Congress on Surveying and Mapping, Hydrographic Certification Program. ACSM teamed with the Hydrographic Society of America. OCS or NOAA doesn't have an official relationship with them, but we have someone on my staff who is a Hydrographic Society of America member is also on the ACSM Board, so certainly we work with them to get our viewpoints across, but we only have one vote and we get voted down on occasion.

The first certificate was awarded in 1985. Since then about 200 certifications have been awarded. They think about a

hundred are still active -- that hundred number is probably a little high, but in rough numbers that's what we're talking about. More recently since 2001, 69 applications have been filed, 32 certifications have been awarded. To get a certificate, you basically need 5 years of experience with references. The board reviews that, if they think you have the experience, they will allow you to sit for the 3 hour test, and there's about a 50 percent pass/fail rate on the test. So between three and four people have been getting certificates every year for the last several years. [Next slide.]

The other kind of program out there is the IHO Cat A and Cat B. A Cat A certifies a course of study, it doesn't certify a person. Right now UNH and USM are the only two Cat A programs in the U.S. So, certainly people who graduate from a Cat A program that is certainly a valid course, but, again, a person doesn't become Cat A certified, IHO certifies the course work.

The next level down is the IHO Cat B which is a shorter course of about 6 months, and the USM is the only program in the U.S. that I am aware of at the moment.

MR. ARMSTRONG: The Navy.

MR. FERGUSON: Oh, the Navy. So that's a Navy program, not an official USM program. Thanks. [Next slide.]

So we continue to work with the ACSM to kind of make their certification more relevant. We're working with them so as people finish a course work and if they take a quiz at the end of that class, they can get credit for the ACSM certification and actually opt out of

that part of the final exam so that people can kind of work up a career ladder and check off certain steps as they go along. OCS and Navy are beginning discussions on kind of a government training career ladder. Whether that leads to an official certification and/or we can transfer that to the ACSM side is still to be determined. And, of course, OCS, we have our in-house training and development career ladders, but again it doesn't lead to any sort of official certification. It is just a knowledgebase of KSA's that people need as they climb the ladder. [Next slide.]

So, in summary, HSD has made significant improvements in our ping to chart times. We think we are at the point now where we can handle all the data that comes in without the time lags that we've had in the past. The key is getting clean, complete data that follows our specs and deliverables. So it's not really a certification issue, it's just getting the data in the formats we need. Certification may play a role, but it would not be an entire cure-all to this entire ping to chart process. [Next slide.]

MR. WELCH: Thank you, Jeff. I'm sure we'll have some questions.

Larry?

MR. WHITING: Jeff, you made a glaring omission of RLS, Professional [sic] Land Surveyors. The certification in most states require hydrographic surveys be conducted under a registered land survey supervision. You did not use those terms in this presentation.

MR. FERGUSON: You are correct, I did not. There's no federal requirement for that, and so -- and every -- go ahead.

MR. WHITING: Federal requirement states that you have to follow the rules of the state; right? The law of the state -- if that survey is conducted in the state waters, it has to be conducted to state laws, I believe it says?

MR. FERGUSON: Within our -- I guess the in-house -- again government surveyors just like government people driving their ships don't need Mate's License, so there's a government side and the private sector side. Certainly, on the private sector side when we order task order the contractor is required to follow all necessary laws and regulations in conducting their work. That's an interesting point that -- what is the role of the private land surveyor certification in terms of the hydrographic requirements. You know, the private land surveyor certification -- what does that mean in terms of knowing multibeam and sidescan sonars everything you need to conduct a hydrographic survey. So I think that is an interesting law that I don't quite understand.

MR. WHITING: But at the same time. I'm not saying that all registered land surveyors are qualified to do a hydrographic survey or to survey to your standards, but that the state requires us to only conduct those surveys under our supervisions that we are capable of doing. So I see no reason why a certified survey comes in that is stamped by an RLS couldn't be just checked and put on your charts.

MR. FERGUSON: Because we've had problems where we've received a survey like that and all we get is a sounding plot and we have no idea where those soundings came from. We don't know whether those are

shoal basins, or they're median bins, or they just picked some random soundings; and what kind of tide correctors did they apply, what kind of error estimates did they use. We need to know that information to be able to assume that liability. Just to get a sounding plot with a stamp on it, I don't think we can assume that liability.

DR. JEFFRESS: I might be able to add to that. I'm a professional land surveyor in Texas. Actually, I was also a licensed surveyor in Maine which I chose to let lapse. There are absolutely no educational requirements for hydrographic surveying to be a licensed land surveyor in any state that I know. What we are qualified at is making measurements. We understand the science and we're educated in the science of making measurements that focus on terrestrial boundaries, real estate boundaries is what the focus is. But I think it is generally known that surveyors are very competent at making measurements and putting them into map products is the only link between hydrographic surveying and terrestrial land surveying.

MR. ARMSTRONG: Mr. Chairman, and Jeff. This is Andy Armstrong. I'd just like to add some additional information on hydrographer certification particularly in regard to the Category A certification of training courses that Jeff mentioned.

I am a member of the FIG, IHO, ICA, International Board on Standards of Competence for Hydrographic Surveyors. This is the international board that recognizes training and education programs that offer Cat A and Cat B programs. Because of considerable demand in the profession for individual certification, the Board at the

direction of its member bodies -- the International Federation of Surveys, the IHO, and International Cartographic Association is developing a program for individual certification. The basis of this program would be that the Board recognizes national or regional schemes of certification, but does not directly recognize the individual.

So the plan is that, say the American Congress on Surveying and Mapping Hydrographic Society who has a hydrographic certification program might apply to the International Board for recognition of their program. The International Board would evaluate that program based on a set of standards yet to be published. There will probably include a requirement for a formal education, a requirement for experience, a requirement for documented demonstration of competence and a requirement for continuing professional education.

There are a number of these international standards systems that are interested. Most interested now is the Australasian system. We're in the process of developing that, and when it is developed the Board will seek the final approval of the parent bodies and begin this process of recognizing schemes of individual recognition. These will be at the Cat A and Cat B level to an international set of standards.

MR. DASLER: For starters, I want to commend NOAA on how quickly dangers to navigation can make the chart. Even though there is these long periods that Jeff was talking about that they're trying to reduce, often times we'll turn in a danger to navigation and while we're still conducting the survey, we get weekly chart updates on the

raster charts and we'll see the danger on the chart while the survey is still being conducted. So I think is important to note that critical navigation information is making the chart promptly.

In regard to hydrographer certification -- and really, I think a lot of this stems back to the meeting we had in Baltimore where the panel kind of addressed, "How can we get information on the chart more promptly and quickly?" There's, I guess, long-standing been the issue of qualifications. That's one reason why the ACSM came up with the Hydrographer Certification Board to differentiate a land surveyor from somebody who knows hydrography. And not all certified hydrographers are land surveyors either. So it's a broad spectrum, it's quite a bit different from surveying.

That said, the Corps of Engineers does require surveying -- land surveyors in their contracts and they use hydrographer certification as well. I guess a question is, how could that kind of information get onto a chart more readily even if it's maybe just through dangers? The Corps of Engineers does a lot of surveys outside the channels, but is that making it to the charts?

MR. FERGUSON: I'd have to research that -- as I look over at the Chief of MCD.

CAPT LOWELL: We receive a considerable of information from the Army Corps. We receive it in multitude different formats and we do receive a lot of paper data from the Army Corps. We receive X-Y-Z data, we've received in virtually every format conceivable; in CADs, in GIS. It is mind boggling and, of course, it comes in on different

datums. It comes in in many different capacities. The Army Corps is a separate kind of an issue to what we're talking about here.

But to get specifically to your question is -- and the way we usually handle that is we simply allow the Army Corps to utilize their authority over the channels. In other words, those are federally mandated channels under the control of the Army Corps and we defer to them. We do not do the in-depth data analysis on any of that other than because we have framework issues -- and when I say the "framework," that's really the channel is what I'm talking about, the box that is the channel and the pieces within that channel.

The issue we have with the Army Corps is we don't always know what their framework is, and so we typically have to -- when we communicate to the mariner -- and I think Jeff mentioned a Tab. It's -- we tell them that the left outside quarter of that channel is a certain depth, we don't necessarily know where the Army Corps framework was and due to that -- because we still have to communicate that information to the mariner, we have to do some -- and I can only call this very rough analysis. We create our own framework where we don't have Army Corps framework and we establish what is the least depth within that left outside quarter.

So it's kind of a stopgap measure until we can get the Army Corps to deliver standard products to us. We're actively working on it. I should make sure that everyone understands that. We have a very strong program working with not only Army Corps Headquarters, but many of the regions. Everything from a central data distribution

thing to a common framework that -- when I say "common framework" I mean a framework that the Army Corps says, "This is where the channel is, and we have access to that." So the commonality is between the Army Corps and us. By extension we're seeing a lot of pilots who have access to that framework. So they're seeing that on -- or they have access to that data and so they're actually getting that.

Specifically your question about the data outside the channel, is we take a look at that. Where there's gross changes, it will be applied, but we don't receive a significant amount of data outside. Typically it's just that the lines extend a little bit. They might get a turn in and then theyy come back across. The Army Corps standards are not always across the channel, they're parallel to the channel, they're at an angle. Basically they're going to operate the way they want to operate, which is fine.

MR. DASLER: Again, one of the comments -- I think was the Port of Baltimore they were talking about some of the surveys the Corps is doing for them or even private industry, but they can't get that on the charts. I think it spans through all port authorities as to how they can get that kind of information. Possibly even encouraging submission of dangers if they have things -- if MAD managers can have that outreach to them and submit dangers.

Recently there was a barge grounding on the Columbia and it's a section even the Corps of Engineers doesn't survey very frequently. I think the last survey was something we did in the 90s. Where the Hood River comes out a barge grounded and sat; a fuel barge

grounded for about 3 days on a shoal, but it was charted as 30 feet. Actual depth is about 5 feet.

So the Corps has cross line surveys through there, but it was like, how can we get that information even if it is in the form of a danger if it's critical information. I thought regularly and as a part of IOCM that they're going to try to incorporate Corps soundings more often?

CAPT LOWELL: They are incorporated. Basically our intent is to get the information out quickly to the mariner when we get the updated surveys from the Army Corps, and the mechanism we use is the Tabs because Tabs go out on that weekly schedule. To physically update all the soundings on a chart on a weekly basis would be -- it could be done, but then there's obviously a loaded cost to the end consumer that you have to consider. Did that answer Army Corps?

MR. DASLER: I guess the other thing I wanted to comment on is, Jerry Mills, who is on the Board -- I'm actually on the Hydrographer Certification Board is going to be retiring, and I really would encourage NOAA to get some more representation on that Board. There's a couple of NOAA contractors on there, but right now it is primarily the Corps of Engineers that's kind of driving a lot of that. NOAA should really look at that. We're trying to encourage the Certification Board to not look at this as just the U.S., but go to international standards and really kind of up the level a little bit so it doesn't get too watered down because I think there's a tendency to do that from a Corps perspective.

MR. FERGUSON: We are aware of that. We're trying to look at ways to incentivize certainly our government employees to work towards that, but since there is no real requirements internally, it makes it a little harder, but that's why we wanted to make this stepping stone so we can get more of our folks certified and get membership and work those partnerships.

MR. DASLER: This may be more of a question for Jack. Is there any way for any kind of of incentive program for certification with NOAA employees?

MR. DUNNIGAN: I can see that happening in a couple of different ways both in terms of true incentives; if you do something, you get something for it. Also maybe in terms of requirements. Making it in either of those cases but especially requirements would require substantial engagement with our workforce management folks. Certainly, I think the opportunity might be there. That's not commenting on whether we think it's a good idea to do it for which I would certainly want to be consulting with OCS.

MS. DICKINSON: Jeff, I have a question about the regular changes or corrections to charts, not hazards are wrecks. Is there a big time difference between when a change is going to show up on an ENC versus a paper chart and how much of a time difference would that be? Generally speaking.

CAPT LOWELL: Can I get you to ask the question again, because there's about ten ways to answer it.

MS. DICKINSON: Well I was just thinking of when the changes get

into the public's hands it's either going to be on an ENC or a paper chart or print on demand chart. I'm wondering, is there a big difference because a lot of regular people, recreational boaters, still like paper charts. I'm guessing that they are corrected the latest. Is that correct to say that or not?

CAPT LOWELL: This will take about 20 minutes if I do the short version.

MS. DICKINSON: Well, we can talk about it later. But it doesn't all happen at the same time; right?

CAPT LOWELL: No. Currently we have two distinct production lines. One is for the paper and raster product and one is for the vector data which is the ENC product. They are not synced up in our new system -- and Jeff referred to the NCS II system. When that comes online sometime in 2010 in the area of its footprint; in other words, it won't be the entire suite at once, but it will slowed expand. Then we'll be able to sync the products together much tighter.

But currently they are not synced at all other than we know information comes in from many different sources. We know all the products that information falls on all through the scales of the paper all through the scales of the ENC. And it is applied in kind of a linear flow from the raster to the ENC, but the ENC's and the rasters are not -- when you're saying the bulk changes, I'm not talking about the dangers which go out in local notices -- the paper chart schedule, those bulk changes go out via what's called a new edition process, you get a new edition number on the bottom of a chart. That means all

data that we have available is now applied.

The ENC is actually -- a new ENC is created, a new version on a much higher frequency than the paper. So, currently we're doing -- I think this year we did about 120 paper new editions. We'll probably do 200 plus ENC equivalent new editions, so the answer would be they're not synced. They night not even be in the same areas. It has to do with other drivers as to why those new editions went out. It could be that there's just a lot of critical corrections on there and you don't want to force somebody to hand correct everything. But that's a real cursory look at what happens.

But in the future I can say if we succeed in bringing NCS II online, when we apply the data, we'll apply it to a central database and then we simply extract that information to multiple products and we can do that on a much tighter basis. In other words, we'll be able to update everything all at once.

Although, I should say from a user's perspective, we still have to watch how frequently we do new editions on paper, because a new addition on paper is going to cost the user money. A new ENC we provide for free. So there's a certain amount of how many times do you want to ask somebody to buy that $20 chart?

MR. DASLER: Also when you say "ENC" you're also referring to RNC's?

CAPT LOWELL: No. RNC is paper. Paper and RNC are the same. Basically it's raster data and there's vector data. A POD, by the way, is an RNC product, print on demand. So all of those come from

one source, the vector data is a separate source, or separate product.

DR. JEFFRESS: I just want to go back to the certification and education just so the panel is clear on this. The two programs that exist in America are in New Hampshire and Southern Mississippi. Both of those programs are graduate programs. There are no undergraduate programs specializing hydrographic surveying in America right now. There is a community college at Monterey in California that does a bit of work on AUVs and autonomous vehicles, but there is no undergraduate program or bachelors degree with any focus on hydrographic surveying.

We would like to do that in Texas and actually we have a long-term plan to put in place a hydrographic emphasis in our bachelors degree in geographic information science, but we've not had the funding to do that. We do have one course, one subject in hydrographic surveying in our program. It's an elective course and it's actually being run this semester. A lot of our graduates actually go into the hydrographic industry through Fugro and Chance & Chance and then some smaller hydrographic companies in Houston. We have quite a few graduates actually working in the Gulf right now. So they're in demand, but we would like to have a special emphasis in hydrography and be it certified by the ISO.

So that's the problem, It's a chicken and egg thing. Texas doesn't want to front up the funding to hire a faculty member in this, but the industry would like to see us do that.

MR. WELCH: Other comments?

RADM WEST: I'm still confused. Certification. The Hydrographer

of the Navy worked for me when I was the Oceanographer. But he was hydrographer by position, not necessarily by certification. Although he did work in that.

Steve, is your position as Hydrographer of the U.S. by position, or by certification, or how does -- because. I was Oceanographer when we set up the USM curriculum, IHO, et cetera. By the way, interesting story. I got asked to speak at the graduation of the first class. There was only seven of them. I said, "Sure, I can handle that, no problem." So I flew to Mississippi. I didn't know it was the entire university's graduation till two days before. I'll tell you what, I swallowed my Adam's apple, and I pulled it off. Anyways.

But there is no one single U.S. certification process, so you are certified in the U.S.; is that correct? Like, NOAA, you're by position?

CAPT BARNUM: By default the Director of Coast Survey is the U.S. National Hydrographer. Similar to many other nations in the world.

RADM WEST: So you don't have to be a certified hydrographer to be the Hydrographer of the U.S.?

CAPT BARNUM: No, there is no certification for it.

RADM WEST: I guess that's what I'm after. I think that's what we should have. Some process where, if you are a certified hydrographer in the U.S., it is the same for everybody. Or is it?

MR. DASLER: What really spawned a certification process is probably more from the private industry. So ACSM also has different

certifications, there are certified photogrammetrists, so there's different professional practices within surveying and mapping. What they're trying to do is if a client like NOAA or the Corps of Engineers or port authorities are trying to hire that profession, how can we say that these people have minimal competency to do the work? That's really what spawned these certification practices or these different certifications. So when ACSM -- like they have a certified survey tech and photogrammetrist, they said, "Well, we really need one for hydrography because just because you are a licensed land surveyor doesn't mean you know anything about hydrography." So that's really where it came from.

RADM WEST: Okay then if I hire a certified hydrographer in the U.S., that person, no matter who it is, is certified to the same standard?

MR. DASLER: They're what we would call "minimally qualified" to do it.

RADM WEST: But who determines that?

MR. DASLER: The hydrographer certification board --

RADM WEST: -- this is the ACSM you were talking about?

MR. DASLER: The ACMS and the Hydrographic Society of America. So there's a board that sets standards that need to be met --

RADM WEST: -- So every hydrographer certified in the U.S. meets the same standard?

MR. DASLER: Yes. Right. The minimal standard as we would say. It doesn't mean they are all -- that's when -- I think that's when I

mentioned the potential of things getting watered down. So from the Corps of Engineers -- from their prospective, it's really dredging surveys and volume computations. So things can get weighted toward that front which is also I think why a lot of NOAA personnel don't seek certification because they're going to have to study up on dredging surveys and volume computations.

So we're trying to reinforce that more from a charting perspective and object detection where we could really use more NOAA support, I think, on the Board to help move that forward and I think also pushing it towards more international recognition. So if somebody gets certified by ACSM, they can be recognized internationally and not just within the U.S.

MR. ARMSTRONG: There are a number of people and actually government organizations that sort of somehow recognize this concept of being a certified Cat A or Cat B hydrographer. And that's because in some part the institutions that offer certified training programs are allowed to issue certificates of proficiency to their graduates. Those certificates of proficiency are issued on the basis of completing the training and breathing for 3 years on a hydrographic party.

So the board that I'm on, the international board, feels that is sort of an irrational system of recognizing individuals and thus another reason for our goal to formalize the pieces beyond the actual education program in a Cat A or Cat B certification. So there are people who advertise themselves at Cat A hydrographers and the

U.K. hydrographic office actually requires Cat A hydrographers on their surveys, although there really is not a internationally recognized valid system of certification of a Cat A hydrographer.

MR. WELCH: I'm not certified and I'm not a hydrographer, so let me ask a couple of stupid questions. Seems to me there's a lot of people doing hydrographic work that are not certified hydrographers; correct? Okay. What -- other than the professional recognition that you get for being a certified hydrographer, what business or professional reason do you have to become a professional hydrographer?

MR. ARMSTRONG: I think that outside of the United States there is significant incentive to be certified because most national hydrographic offices that engage contractors require Cat A certification in some form or another; either completion of a course, or having one of these certificates of field proficiency. So there's a huge international incentive for Cat A, Cat B hydrographers. Not so much in the United States.

MR. WELCH: But here in the U.S. there's no -- this certification is not a prerequisite for any type of professional type of activity?

MR. DASLER: Well it is inferred, I guess I would say. Although it can't be used as actual selection, it is heavily weighted. So if you're in the private industry and you're doing hydrographic work, you probably ought to have some certified hydrographers on staff if you expect to get contracts.

MR. WELCH: So it enhances you, your personal, or your firm's professional resume, so to speak?

MR. DASLER: Absolutely.

MR. WELCH: But there's not -- but that depends on the customer's desire to recognize that qualification and that certification?

MR. DASLER: Correct. Yes.

MR. WHITING: I still believe that the ACSM is an association of members; right? A club? And that is where the state governments don't recognize that certification as being required, they still stick with RLS, and certification does help, helps a lot. But when it comes to recognition by the state law, it's RLS.

MR. WELCH: So it's not like most states do what their state bar exams for lawyers where they recognize -- they basically recognize the lawyers association as the certification body for their state. They have not delegated that authority to these hydrographic certification organizations?

MR. WHITING: Yes.

MR. WELCH: Now part of the discussion here is, I guess, the desirability, or not, of enhancing the number of certified hydrographers within NOAA. That seems to me to be one threshold question. Would that be a good thing, would that be worth the resources that would be devoted to that type of thing?

Then the second question is why I think we got on the agenda in the first place is, is there anything about certification and the use of certified hydrographers that might speed up the ping to chart process. So it seems like to me we've got sort of two different aspects of this discussion, and we've been bouncing back and forth a

little bit from one to another. So if we could focus for just a minute on the question of desirability of certified hydrographers within the NOAA program for a minute. Does anybody have any comments about that?

MR. ARMSTRONG: Thank you. It is my belief that the whole process of certification comes about as a result of a desire to improve the general professional level of hydrographers performing these surveys. So it seems to me that the benefit of a certification program to NOAA's hydrographic program both in-house and contracting is, that if properly implemented, it should improve the quality of hydrographic surveys that come into the agencies, and thus speed the survey's progress through the quality control and cartographic application system to the chart. I think it is in that area of improving the general quality of the work in the first place that will have the greatest benefit on the ping to chart, not in saying that because a certified hydrographer did this it doesn't need any quality control or does it need any further cartographic application.

MR. WELCH: Let me ask a question to that and speaking about the in-house resources. If you had a requirement that the work had to have the stamp of a certified hydrographer in-house, it seems like to me there was a relatively small number of people that were certified hydrographers. Would you be perhaps slowing up the process in-house because you have a dearth of certified hydrographers within NOAA? If you had that type of requirement for your in-house people?

MR. ARMSTRONG: I think the answer to that question is maybe

"yes," that it's -- you sort of have to be careful about setting requirements like that, that you don't have the unintended consequence of throwing a wrench in the whole works. I think it's much better to focus just on the desirability of improving the professional level overall in the system.

MR. WELCH: But then let's talk about the outside resources. Jeff seemed to indicate that there was -- because of the liability questions the agencies belief that there always is going to have to be this HSD review. I guess the counter argument is, if you could be assured of a certified hydrographer doing the outside work according to the specs, maybe you could reduce or eliminate that. Is that sort of the idea you've had Larry?

MR. FERGUSON: I'd have to double check before I say all of our contract partners, but certainly the vast majority -- and I'm pretty sure all of the firms have certified hydrographers on their staff have registered land surveyors on their staff because of the state laws. So our contract partners already have that. The surveys come through HSD and the and vast majority of the time the surveys are of high quality, but we do find problems. And we do occasionally send a survey back and they do a little extra processing and resubmit it.

So right now, the model is, just because of the qualification based selection process the firms have all these people on their staff and are doing the work and the surveys come through HSD and we do a validation on it and produce the deliverable to MCD. So that's kind of what's happening now.

MR. WELCH: So that brings it back to a policy question within the agency.

MR. FERGUSON: So it's not required, but that's what's kind of happening in the real world. So to get back to Andy's point, I think the goal should not be, "Oh, they're certified and they can now stamp this and we don't have to do any checks on it," because I'm not ready to make that leap. But the goal should be higher quality data because when we get a complete data set that's high quality, it flows through our system superfast. As soon as we start finding problems, then we have to battle with those problems, perhaps send it back or fix the problem, and it slows everything down.

MR. WELCH: Well are there panel members that take issue with that statement that perhaps the policy ought to change?

MR. DASLER: Because I think the other thing that we're talking about here is maybe surveys that are done outside of contract -- getting back to what was raised in Baltimore by the panel there is, how do you get other information on the chart, other than say NOAA contracts or internal within NOAA? So I would just say if a certified hydrographer conducted the survey, that could be the first level of filter. That's not to say that NOAA's review process would go away, it's just going to help reduce the inflow and at least be a first stepping stone of somebody to be able to submit data.

Because I was pretty sure that there has been other surveys -- like when surveys have been done in areas there was a program where NOAA was importing other survey data and trying to get

some of that onto the nautical charts, and maybe that's a step back with the inflow and the data load. Has that program -- I don't know if you are familiar with that. But I know we've submitted other surveys and requests at times and they've put that information on the charts.

MR. FERGUSON: Certainly the couple of examples is the Portland, Maine, example. The oil company there wanted to bring bigger ships in, so they paid to dredge and they paid a private contractor to do the survey and they wanted to get that data to us to update the chart. So certainly they contacted us ahead of time and they just happened to hire a contractor that had done work for us in the past. We pointed them to our specs and deliverables. So they did the work, submitted it to us. We didn't pay for it, it wasn't one of our field units, but that data came to us and because it was in a format, we got the full resolution data, we could check it, and it ended up on a chart. So there are examples like that.

We got another example where a port authority kind of did similar work and paid for the survey but all we got was the sounding plot stamped by somebody. And the pilots under the table told us, "We don't trust them. We think it's just the port authority trying to get big ships in there. We are not comfortable." So now we've got people looking at us, "Why don't you update the chart?" Well I'm not just going to take that stamp and put those sandings on the chart, especially when someone else is telling me they have concerns.

So I need to get the full resolution data so I can see that

they did the work appropriately and did all the proper correctives. So we do get outside source data, but just helps a lot -- I think, you know, if it has a stamp, is that the first barrier that we have to step on before we even waste our time looking at it? That might be a policy to have. But it's very -- kind of case-by-case basis.

CAPT BARNUM: I just want to add. The key point here is it's not only certification, but it's doing the work to the specs and deliverables. Show us how you got the answer. It's like in high school. You put the answer down to the problem, the teachers want to see how you arrived at that answer so they can follow your thought process to back up, again for our liabilities, again, as opposed to just getting a sounder blot, we get the metadata, we get all the processes of how they arrived at the answer. So that we then can, with confidence, apply it to the nautical chart. Having that in a standardized format and done to our specs and deliverables, again, as Jeff said, greatly speeds it through the system.

MR. DASLER: So following this full circle would be a recommendation that could go out to port authorities that -- if they're looking at doing this, I guess to respond back to the comments that were raised again back in Baltimore -- that following the specifications and deliverables like a normal hydrographic survey sheet would be conducted and submitted to NOAA is part of that requirement. I guess just trying to address that issue again. Again the concern was, here we're conducting all these surveys, it's not getting on the chart, what can we do to move that forward and help get

that on the chart. So whether it's just using the same specifications and deliverables and just following that as a guideline through that could go to ports or other agencies that want to submit data, or if there is some other standard that is established.

CAPT BARNUM: I agree. An outreach program to the surveying industry to help educate them on the standards and deliverables, and also what we're doing through the IOCM, Integrated Ocean and Coastal Mapping, and all the surveys that are being done for other purposes beyond just navigation. How we get that data and can apply it to the nautical chart. Work that we heard Roger Parsons talk about last time in Baltimore.

MR. WELCH: Other thoughts or comments on this?

[No response.]

MR. WELCH: So I'm concluding from the discussion that there is a sense and that the question of using certified hydrographers, particularly in the private contractors is not a question of promoting them or the capacity of them. In most cases the people already have the certified hydrographers as part of the team. The fundamental question from NOAA is: Is whoever is doing the work following the specs and deliverables, and if they are, the processes shortens, and if they aren't, it's a longer-term situation.

That brings us back to the other question about what is the value, if any, of encouraging NOAA to increase its in-house capacity of certified hydrographers. Do we have further comments on that?

DR. JEFFRESS: Being an educator, I'm interested to see what the

demand for educated people are. There is a big demand for them. All our graduates can get jobs even in a slow economy. There's a big demand for surveyors and there's a big demand for hydrographers. The shortage is going to get worse.

What's happening in Texas on the land surveying side is the age of the profession is getting older and older every year. The average age and the mean age has gone up just about every year. There are more practicing surveyors in Texas over the age of 70 than there are under the age of 40. And it's going to get worse and this industry is going to have the same problem. So what was my point?

MR. WELCH: Well you haven't gotten to the point which is Texas A&M needs some federal funds to create this program.

DR. JEFFRESS: Yeah, but that's not going to happen. The federal government cannot fund undergraduate programs. It can only fund graduate programs. What needs to happen is the industry needs to step up and give us a shot in the arm, like an endowment for a professor. That would really get it started.

MR. WELCH: But you're sitting next to the industry.

MR. WELCH: I know. They won't hand over the cash.

RADM WEST: I just got a basic question. Who is legally responsible for certifying a chart to be safe for navigating? Is that the head of NOAA, or is that you, or is that you, Steve?

CAPT BARNUM: Certifying the chart that it's safe for navigation?

RADM WEST: Right.

CAPT BARNUM: Well, we produce them --

RADM WEST: -- I know, but somebody has to say it's -- legally. Is that the head of -- the Administrator of NOAA? Is it Commerce? Who is that? Because on a DoD side the head of -- it used to be NIMA, now the NGA certifies -- he's the only person that can certify the chart that the military uses as safe for navigation. The only person, which by the way, is a problem if you want to change a chart -- it's a whole different discussion. It is the ping to chart time lag, and you can't wait in a military situation for that lag, but legally, they're they only one -- he or she is the only one that can certify the chart safe for navigation. Who does that on the NOAA side? Who's responsible for that?

CAPT BARNUM: Ultimately, it would be me.

RADM WEST: Okay. So the Hydrographer of the U.S. is ultimately responsible for declaring a chart safe for navigation.

CAPT BARNUM: And producing the process -- having the processes in place to produce nautical charts that are safe for navigation.

RADM WEST: That's a little different.

CAPT BARNUM: There's no process were an individual signs off on each chart.

RADM WEST: But before you publish it, it has to be safe for navigation?

CAPT BARNUM: Correct.

RADM WEST: That's your job?

CAPT BARNUM: My job, and the organization that supports it.

RADM WEST: Okay. Got it.

DR. JEFFRESS: I remembered my point. I asked Jon just last night where does he get all his employees that do all these surveys, and he said they come from NOAA or they come from the Navy. So really, NOAA and the Navy is training the guys he hires. It would be nice if you all certified them before he hires them.

CAPT BARNUM: You heard in Jeff's discussion earlier that we did have discussions with the Navy on developing a certification process. A stepping stone to the hydrographers as they go through their career build up certain credentials, because we do recognize that folks do leave the organization and go to the private industry. It would be nice to have them have some level of competence or proof when they go outside the organization.

MR. WELCH: And to the extent you're getting data from outside sources that has the stamp of a certified hydrographer, it speeds up your process, so you benefit from that.

Jeff, could I get you to go back two or three slides? The one you had the chart with the decreasing time lag. That one, yeah. Do you attribute the decrease in time lag solely to efficiencies and the fact that people are following the specs more closely and submitting data that way, or have you put more resources, basically people, into doing that work?

MR. FERGUSON: It's a couple of pieces. We do have a pretty amazing intern program where we have across HSD about a dozen interns that come straight out of college full of spunk and vinegar and they spend about a year or two with us. They've been a tremendous help

just giving us additional capacity to do some of the things we need to do.

The biggest process was probably process improvement. We worked very closely with CARIS who is our software vendor where a few years ago a hydrographic survey would have to be put into a micro station design file format because that's what MCD needed to do their process. We're now a completely CARIS pipeline from -- as soon as we start processing the multibeam data until the deliverable to MCD. It's all within CARIS. We're now using the navigation surface concepts, we're creating surfaces and verifying those and pulling soundings and contours from a CARIS-based editor package. That software process pipeline has been a huge improvement. So a little bit of capacity building, a lot of software improvements, process improvements that allowed us to do that.

MR. WELCH: So the software improvements which I would call systemic improvements, that would, if you just took the typical project, that has reduced the time of a typical project?

MR. FERGUSON: Yes.

MR. WELCH: And that will continue regardless of whether there's a spike -- not number of surveys submitted to you. It's just taking less time per survey because of these. So if, for example, you had personnel yanked away from you, that still would not affect the systemic improvement?

MR. FERGUSON: Correct. The pink line on the bottom is the number of days per survey. So it was above 400, now it's below 300.

So even if you took all my people away, except one, he would get one survey out in 200 days. Of course, the top blue line which includes the queue time would spike up because now we've got more surveys coming in than going out. So it's two sides of the coin. But, yes, the actual hands-on time per survey has significantly reduced due to the process improvements. We add capacity on top of that which drove the number down even faster.

MR. WELCH: Okay. But if all of a sudden, for whatever reason, there were significantly more surveys coming in to you, and nothing else changed, we could start to see that trend start to creep up a little bit?

MR. FERGUSON: Absolutely.

MR. WELCH: Okay. Thank you.

MR. DASLER: That's where -- especially the specifications and deliverables -- so a lot of the surveys that are turned in actually it's a requirement that they are CARIS compatible. So if it's delivered in the same system that they're running it through, the goal is that it's pretty much a seamless data set that they can look at it all the way back through their early entries in the processing component.

But, I guess, getting back to your comments internally within NOAA. I think that both NOAA and private industry that there's a tremendous need, I think, for hydrographers and developing a career path that they can follow. Whether it is internal within NOAA or within the private industry, there are certain levels of oversight as

the data moves through as descriptive reports are done and there's that oversight level. You wouldn't necessarily call it certification, but there's minimum qualification requirement to take it to that level. Basically establishing that career path. If that can be done in association with universities or other things just to help build the pool of hydrographers as we're moving forward, I mean, all of those, I think, should be investigated in terms of outreach. What can be done at the university level that helps them?

I know a lot of the way NOAA brings up a lot of their -- basically at that intern level they're out as survey techs and they just basically have worked their way up and historically that's about the only way you could get an education in hydrography because it just wasn't being offered at the university level. So trying to find other ways of building for that pool and encouraging that pool I think is in the best interest of both NOAA had the private sector.

MR. WELCH: If I could put the question to Steve or Jack, to what extent has NOAA been concerned about the pool of hydrographers as a career path? If you have been, what are you doing about it?

CAPT BARNUM: Certainly we are concerned about the pool of hydrographers, and certainly compete for talent with attracting talented personnel. I know it's similar in the private sector with the private sector trying to attract talented personnel, trying to get people to even go into the sciences and engineering is a challenge. So there is that challenge to.

But internally, as I talked about earlier, is having a

process where we have all levels of skills of hydrographers from journeyman or entry level all the way to my position. And then how do you build the capability and the structure of the pyramid, if you will, from the junior to the more senior folks within the organization.

That's something we've been working on internally both with training, certainly with our field procedures workshops, certainly with our programs at UNH, and we also take advantage of the graduate programs at USM to send people through those programs. It's a challenge. It takes money, and it takes dedication to dedicate those people for a year or two years to go off to school and take them out of the workforce, if you will. But that's our goal, to have a process where we have a steady flow of folks to build that pyramid and build those capabilities.

RADM WEST: We can't address this now, but I think if Jack can maybe talk before we leave. Marine spatial planning that Jane has announced is long overdue. It was recommended by the Ocean Commission because it's a morass out there. But really what it is is zoning of the ocean. Before you zone, you've got to have a good map and that's bathymetry, et cetera. But then you start bumping into rules, state rules, and 3 miles and 12 miles and all this other stuff. And I can tell you the oil and gas industry is up in arms over this marine spatial planning because they are afraid of it and don't know about it. I guess my question back to Jack and Steve is: how do you see this mission's role within NOAA playing in this marine spatial

planning? I think there's going to be a lot of questions about how you get data, how you do the survey, who's qualified, how do you get the state involved and all that other stuff. Because there is going to be a lot of push back, in my personal opinion, on this marine spatial planning.

MR. DUNNIGAN: Thank you. If I could, just briefly. We've had a number of discussions about this with Dr. Lubchenco and as a matter of fact, she understands exactly the point you just made, that you're only going to be able to plan successfully to the level that you've got the information to support the planning. So it's a fundamental part. We recognize that this is a fundamental part of doing coastal and marine spatial planning, and we recognize that we have to make investments to be able to make that happen. Two points I would add, though.

First of all, I've heard Dr. Lubchenco say that, "You don't want the perfect to be the enemy of the possible." So you don't want to delay getting on to doing coastal and marine spatial planning until you have all of the information you'd like to have. So you need to be able to move and be comfortable moving with appropriate degrees of resolution based upon what you know today.

Secondly I just take a slight exception to saying that marine spatial planning is the same as ocean zoning. We're doing -- in fact, this week we did a series of workshops in Silver Spring. Today is the last of the three. Today's workshop will actually be available on the Web. It will be archived. It's being run by a

couple of consultants who worked for UNESCO and did a really great book on marine spatial planning. It's sort of a practitioner's guide as to how to. They make the point that ocean zoning is a tool that you do to implement your marine spatial plan. So they're not quite the same. You can zone without a plan and it won't be very effective. So I just want to be sure we have some clarity of the terminology there. I think the point you're making is a valid one, and one that the NOAA leadership recognizes.

MR. WELCH: I think later in our program we're going to talk some more about this interagency task force and perhaps us sending a letter to Dr. Lubchenco on that subject.

MR. DUNNIGAN: Here's the book.

MR. WELCH: This is a big initiative by Dr. Lubchenco and people more than just NOAA on marine spatial planning and it may be that at a future meeting we want to highlight this more on the agenda. I know from my perspective and the people I work with, we are very concerned that the people that got into this were talking about all sorts of ocean uses and they didn't say anything about ships sailing on the ocean. We said, "Wait. Navigation."

But we're coming to the end of this particular segment of our discussion. Do we see -- we don't have to decide right now, but if I could get you to start thinking about. Are there things that we've discussed here that might be worthy of reference in our summary letter or our letter of recommendations to the Administrator? Do we want to say anything about certification? Do we want to say anything

about the need to enhance NOAA resources for certified hydrographers or education processes? I don't think we should answer that now, but think about that if you would, because when we get towards the close of the business we might want to say something along these lines.

Finally if I can wrap this up, there are going to be paper copies of this presentation that are passed out to us later in the day, so that is forthcoming. I would like to thank Jeff for leading the discussion and making the presentation. I guess the last thing I would ask is, do the panel members feel like we've had a good discussion of some of these certification issues, or are there things left undiscussed that we need to bring up subsequently? You don't have to answer that today; but have we exhausted the possibilities, or is there more to talk about?

Okay. Thank you.

MS. ARENSON: There is no one signed up for the public commentary that I saw, but you might want to check.

MR. WELCH: Okay, let's check. We normally have an opportunity a couple of times throughout our meetings for public comment. So we don't have anybody signed up, but are there any members of the public that would like to comment; and if so, why don't you just come up to the microphone and identify yourself and comment away.

UNIDENTIFIED MALE: Mr. Chairman, there are two letters from Michigan for public comment. Can they be read into the record?

MR. WELCH: Well, we certainly could. I guess the question would be whether we want to do that as part of the user's panel a little bit

later today, or whether we want to put those on as part --

UNIDENTIFIED MALE: -- May I suggest that they concern education and the certification and training for hydrographers.

MR. WELCH: Okay. The letters are actually, I believe, in our packets. Let's see if we can direct everybody's attention to them. Perhaps we don't actually need to read them. Well, I don't know, maybe not everybody in the audience has seen them either.

MS. ARENSON: There are copies on the back table. We have -- the letters will definitely be part of the record.

MR. WELCH: Let's see if we can talk about them a little bit. The letters are from first, Mr. Breederland from Michigan Sea Grant Extension, dated September 21st. And if I could just skim through them -- I think he had a question about some data that was produced by Army Corps of Engineers work that has been submitted to NOAA and he's concerned that there's some delay in NOAA acting on that. And his question was whether he was correct that there is some technical difficulties with the data. But that has to do with he's worried about the question of this fitting in with map wants, survey wants, use many forms. So that was one of his points.

He also is talking about a project that they have underway with where the OCS -- the Great Lakes Regional Navigation Manager has been involved with it, and he wants to continue to get NOAA technical assistance with that particular project. Then he references some NGS work on the Lake Michigan shoreline and indicated that perhaps Brian Link is familiar with that. Let's have this put into the record, and

I guess to the extent he is raising questions about how NOAA is using some data or whether NOAA can assist in his couple of projects, we need to ask NOAA if at an appropriate prompt time they can report back to us and to him.

Then the second letter is from Mr. Van Sumeren which I must admit I haven't read yet. Can anyone summarize what he had to say?

MS. ARENSON: The main points again on this one from Northwestern Michigan College, again, talking about some survey work in 2009 and 2010 and talking about some coordination or questions about coordination. And also some discussion of putting together an associate's degree program that would tie into perhaps getting some hands-on experience for students doing hydrography. So they're looking for some Ocean Service assistance with these efforts. That's about it. You can say more.

MR. WELCH: Well if I could. Could the NOAA folks here make sure they have taken a quick look at these letters and to the extent that maybe tomorrow we can give some initial responses to them, we can get that into the record; and to the extent it requires a little bit more detailed investigation, we would like to put something in motion that will respond -- report back to them directly and to us and a panel. Okay. Thanks.

Are there other public comments?

[No response.]

MS. ARENSON: Before we take a break, I would just like to remind the voting members of the panel that in your folder, again, on the

left-hand side you should have two pieces of paper that you need do sign before you leave. They are your timesheet and also your travel reimbursement form. So, if you would like to get paid for your services and to get reimbursed for your travel expenses, I would highly recommend getting those signed before you leave. The woman sitting next to me, Tiffany, is going to be collecting them. So if you could please make sure you get those to her. Thank you.

MR. WELCH: Since we're going to start our break a few minutes early, you'll have a few extra minutes, maybe we could all do that during the break and give it to her and then we don't have to worry about it anymore.

Okay. We are a few minutes ahead of schedule. We do have a scheduled break we are going to reconvene back at 10:45, so we've got about 20, 25 minutes. Thank you.

[The public meeting recessed at 10:21 a.m., September 23, 2009.]

[The public meeting reconvened at 10:52 a.m., September 23, 2009.]

MR. WELCH: We have a couple of administrative things, so I'm going to ask Rebecca first to make an announcement.

MS. ARENSON: In order to get a clear record, our A/V guy over here has asked that when you're done speaking that you turn off your mike because we only want to have one on at a time. That will help a little bit with the feedback.

MR. WELCH: I think that was directed at me. Ashley has a comment.

MS. CHAPPELL: This is really important. Dinner. We're going to Valentini's and they have asked us to please select your dinner entrée just to give a little heads-up. They're kind of a family run establishment. It's highly recommended. So I'm going to be circulating the list and I will have a menu for you. Just make your selection and let me know what it is before our lunch today so I can get it to them.

The invitation is open to anyone here who would like to come to dinner with us tonight. Just let me know, and I will give you the list and you can sign up. Thank you.

MR. WELCH: Thank you, Ashley. Are there other organizational things we need to attend to at the moment?

[No response.]

MR. WELCH: Okay. Our next item on the agenda is to begin a discussion, or to continue a discussion about updating the panel's Five Most Wanted list. We have talked about this at past meetings

about whether to -- whether and how to renew or refresh the report that the panel did two and a half years ago to the agency about what we consider to be the most wanted. We had some preliminary conclusions, I think, that it would be a good idea to renew the list or at least reaffirm the list and perhaps update some of the narrative discussion that accompanies the recommendations. We talked a little bit about how to proceed, but to be honest about it, we just haven't really gotten very far down the road. There is always the question of who is going to do the work and how are they going to do the work and how extensive is the work going to be.

But if I can summarize what I think we concluded in the past was, it would be a good idea to issue a revised or an updated Most Wanted list. It would be a good idea for this membership of the panel to do so as opposed to delaying and waiting until there are a new group of members coming on. Our sense was that that would not only add to the time waiting for the new members, but they would require more education. So there is a sense of some immediacy to getting this project moving, getting it off the ground and getting it so that our existing panel can vote as to whether to approve and reaffirm the report.

With that, Rebecca took it upon herself to produce an outline about how this project could be done and wrapped up in a finite amount of time. I really want to commend Rebecca for taking that initiative because she's got a very good document, and for someone who is new to the process, I think she very adeptly summarized

the decisions that have to be made and the work that has to be done. I hope everybody has had a chance to glance at Rebecca's outline, or her "straw man" as she calls it. It's in everybody's folder.

MS. ARENSON: We actually give you a couple of documents for the report. Underneath your folder -- or it was originally -- there's the email I sent to the panel kind of talking about the approach. Then there's the straw man outline that I wrote up, and then we have a text version of the report that we pulled out of the published PDF version. So it's just the text. Then the report itself. Virginia was going to to go ahead and project them up as well, so we'll be able to look at them.

MR. WELCH: If there are no objections, why don't we -- using this projected document of the straw man -- just move through it rather quickly and see what kind of discussion people have on these particular points. Is there any way to magnify that a little bit?

So the fundamental question which I assume I know the answer to, but let's discuss it, is: Does this panel membership want to make a goal of updating this particular report while we're all still part of the panel? That basically means by the end of the year or extending slightly into the new year. Do we feel like it is important to do so, and do we feel like it is important for this panel membership to do the work? Does anybody want to make any comments about that? I see some nods, but we need some discussion.

MR. DASLER: I think it is important that continuity, especially with this report, if it can be done with the panel members that have

been on. And I guess -- does that actually end in December, or is that going to extend until there are appointed replacements to that? I'm a little -- I guess unclear of that timeline. Also, I guess in updating this -- because it seems like what may have been helpful is first get some feedback from NOAA on what of these things maybe have addressed and are not quite as important, and kind of reprioritizing some things if some things have been addressed as well.

MR. WELCH: Well my assumption is that technically that the terms, I guess, run through the end of the year, but I also assume that until new people are appointed there's still some life to this panel membership.

Is that a fair assumption, NOAA folks?

CAPT BARNUM: Yes.

MR. WELCH: "Yes," they say. But we don't know, and they can't tell us, when the new folks will be appointed. I've been part of similar bodies where things stretched out interminably and then others the agencies and their superiors sort of had their act together. So I think we have to assume that we don't have an indeterminate amount of time to do this work. It needs to be a fairly short-term project.

CAPT BARNUM: I would say that I would use the target of the 1st of January, assuming that the new appointments will come into play and not assume that there may be delays. I would think you could target the end of the year to get this work done, if you choose to do it.

DR. JEFFRESS: I think it's critical that we should do it. This document is directed at policymakers, not technical folks. It's

policymakers that need to hear all of this. If they pick this up and see 2007 on it, they say this is old hat and pretty much ignore it. So we need to do it, even if we don't change it very much, we need to do it. So I would vote to go ahead and do it to Steve's timeline.

MR. WELCH: Thank you. Anybody else? Any other comments?

MR. WELLSLAGER: I think -- did we not in Baltimore talk about this and actually take a volunteering of panel members to do specific tasks, you know, of the five which would you like to work with, and if that was the case, could we go back and see who said they would work on what and then try to, I guess, through conference calls or something work towards making changes if the changes are to be made?

MR. WELCH: Well we did have that discussion in Baltimore. I think that discussion was adequately recorded, but I don't have it in front me as to who said what, or who volunteered for what.

MS. ARENSON: I can get that.

MR. WELCH: So we'll pull that up in a minute, but, I guess, before we get to that let's make sure we've had an adequate discussion and reaffirmation of the fact that we want to do this project.

MS. DICKINSON: Yeah, I agree with Gary. Because if time was of the essence which it seems to be, those of us who are very familiar with this document could do the work a whole lot faster than a bunch of new people coming in.

MR. WELCH: Thanks. Admiral?

RADM WEST: I think one thing we mentioned in Baltimore was we wanted to get some feedback from the NOAA folks at what areas had we

made progress in so we didn't go back and rehash each of the five points so you could say, "We're really here with this one." So I don't know if we got that feedback, but when we do this, we should have that before we start.

Number two is, if you remember when we did this originally we briefed the SAB which got a lot of traction, so I was shoot for trying to get in front of the SAB next spring with the revised Most Wanted. So I agree with Steve. I think we ought to shoot for the end of the year. Then maybe Jack or Steve get to Cynthia and say, "We've got a revised Most Wanted, can we get on the spring SAB cycle?"

CAPT BARNUM: I think it's fair to say that the HSRP hit the nail on the head with the Five Most Wanted, and I think it would be saying anything from a stretch that we are anywhere close to completing any of those. We're certainly on the road to attaining those goals, but we're still a long way from reaching that goal.

RADM WEST: But you don't resubmit 3 years later the same stuff is what I'm after. We've got to show progress. You've got to show that you've responded to us. So that's got to be reflected in the update. Or if you go in front of the SAB, they're going to go, "What have you done for 3 years?"

MR. WELCH: We may get some of that discussion in terms of reporting back to us tomorrow on the agenda item that we're pushing back a little bit. I don't know it's going to be a comprehensive response, but it may be helpful and Adam has suggested that we need to have that before we complete this discussion over the next 2 days

about how we're going to move forward.

So is it fair to say that the panel membership continues to believe that we need to do this project -- this panel membership needs to do it, and we need to shoot for doing it by the end of the year? [Affirmative non-verbal responses.]

MR. WELCH: Okay. Let's scroll a little bit down to Rebecca's suggest approach. She has a timeline that she is suggesting that basically the guts of the work are done by mid December, approximately, for an actual report issuance that would come out in the first quarter of 2010. So I think that that is consistent with what we have just said. We can look a little more about the time line in a minute.

Then continuing to look at that. I went through the report in preparation for this meeting, and I think I sent out an email to folks. It is my sense that the five recommendations still stand. They're general enough, as Steve says, they don't have specificity as to what needs to be accomplished so that NOAA can't come back and say, "We've done it." I think that there still is the core of those things still need attending to by NOAA. Even if there has been some demonstrable progress in some of the areas, the general aspects of those findings and recommendations are pretty much the same, at least in my opinion. If that is true, I don't think that we -- then what we need to do is adjust the supporting narrative -- or the supporting data to those part of the reports.

But that's my opinion about the five recommendations. Is

that something that people share? We have a fundamental question, do we want to reevaluate those findings and recommendations which are basically contained on two pages of the existing report, or do we want to have some work done on them?

MR. ARMSTRONG: I would say that we really don't have time to strike out for a new kind of findings and recommendations, and I would agree that the ones we have are still probably the most important and most pertinent for our report. So I would support the idea that we take the ones that we have and bring them up to date a little bit rather than trying to create anything new.

MR. WELCH: And these are on Page 5 and 6 of the existing report.

MR. DASLER: I guess if I understood where you were trying to move us, there is actually defining better metrics within those five? So there would be a better definition of metrics that NOAA could use and say, check off boxes on to do that? So maybe refining these a little deeper within this? It seems like that would be a good approach in terms of defining metrics.

MR. WELCH: Well that's the question. I'm kind of, of the sense that given the short time constraint that we have, my personal recommendation is we take these two pages and we reproduce them as is. And then the subsequent parts of the report where we have narrative discussion of each of the reports, we look at those and see if there is something we want to update saying, "NOAA has made progress in certain areas," or "the budgets have been adjusted in particular areas," or "the panel is particularly concerned about lack of

developments in some area." But my sense is -- my recommendation is basically we reproduce Pages 5 and 6 as is, as opposed to refining them. But that is the will of the panel.

DR. JEFFRESS: I agree with that, Ed. But I'd like to add into the first finding a recommendation that we encourage NOAA to spend more resources looking at the Arctic and following Andy's lead and maybe Andy could put us a new sidebar article on showing the extent of the ice moving back every summer, the dearth of hydrographic surveys in that area.

MR. WELCH: Other thoughts or recommendations?

RADM WEST: I would put in the latest jargon that the new administration is going wherever it fits, like marine spatial planning or whatever comes out of the task force. I haven't read it, I'm going to read it though. Is that the only printed copy we have, Jack, do you know?

MR. DUNNIGAN: It's online.

RADM WEST: It's online, but I think where we can tweak it and make it to kind of fit into where the new Administration's going, it would help.

MR. WELCH: Well there are two documents I think that we should probably refer to. One is this report which I've skimmed which struck me as a lot of -- how shall I say this -- process. Who within the government is making the decisions and is there a coordinating council, things like that? But also there is a new document that I think was distributed to us a couple of months ago about the NOAA

strategic goals that reflects some of the Administration's new jargon or buzz words, Admiral, as you might say. There's reference to Arctic activities, and there's reference to marine spatial planning. That's a NOAA document as opposed to this which I think is a Council of Environmental Quality document if I can be crude. So that other document might give us more of a view of what the NOAA folks are thinking as opposed to this one.

Other thoughts? We've had a proposal then that we review these Five Most Wanted findings and recommendations, that we possibly incorporate into one of them some reference to Arctic activities, and that we review the interagency task force document and the marine -- the NOAA annual goals. Is that the strategy? What's that document called? Is that what it's called, "The Draft Strategic Plan"?

CAPT BARNUM: Next Generation Strategic Plan.

MR. WELCH: Okay. I mean, it's not a long document. It was, what, 20 pages or so? If I remember right. See if there are things in that, that we ought to lift and migrate specifically into these recommendations.

MS. DICKINSON: Question about the Arctic. When you look at recommendation number one, is any of that included where we say that NOAA should "aggressively survey and map 500,000 square nautical miles of navigationally significant areas" and the 95,000 miles of shoreline? Or is that just in Alaska continental U.S.?

CAPT BARNUM: It includes the U.S. and its territories.

MS. DICKINSON: I guess my only question about that, I mean, Dick

makes a good point -- or maybe Gary did -- it's important. But nowhere on any one of the recommendations are we site specific.

MR. WELCH: It may be that --

MS. DICKINSON: -- That could be incorporated maybe in the backup --

MR. WELCH: It may be that after we review this, we come to the conclusion that this finding one is broad enough to embrace Arctic and we just need to feature Arctic activities in some of the supplemental discussion. So let's leave open the possibility we could go either way, but we have made the recommendation -- Gary, I guess, did make the recommendation that we look at whether we need to specifically have a reference to Arctic in these findings, or not.

MR. WELLSLAGER: I think it is a good idea but I've got a little bit of heartburn about this. We don't have properties in a lot of where the new northwest passage is going to be following, so would it be more of a multinational group that would be trying to do the charting of these areas instead of NOAA trying to facilitate that? I mean, once you get east of Alaska, that's not our ground, and why would we be -- I don't know -- pushing to try to get something there when it's really not our purview to do that. I'm just thinking out loud.

MR. WELCH: When I reference Arctic, I mean Arctic within U.S. jurisdiction, but maybe that's not what other people mean. What is NOAA's jurisdiction in the Arctic? Do have jurisdiction to do work outside of the U.S. EEZ?

CAPT BARNUM: For charting, our mandate is to chart the United States coast, it's territories to the EEZ. Now that said, we do share data with other countries for production of international charts where they cover for small scale, large area of waters. But, as far as active surveying, is within the EEZ.

MR. ARMSTRONG: Matt, I would say that while a passage through the Arctic would take ships through Canadian waters or Russian waters, it still will also involve U.S. charted areas as well. So there are, I think, emerging charting requirements in U.S. waters in the Arctic that is certainly appropriate for the panel to discuss and recommend.

MR. WELCH: Is it fair that we -- do we -- well, Jack?

MR. DUNNIGAN: Thank you. I would say that the Arctic is an area of particular interest right now, and more so than it was a year ago or two years ago when we were doing this, from a number of standpoints: national security, maritime transportation, basic land science, you know, the whole question of gravity is really playing out in the biggest way right now in the Arctic. A lot of the work we're doing is in Alaska. So, I don't know what your answer is here, but I do think you ought to look at whether things that have changed over the last couple of years do lead us to want to place greater emphasis from not just a charting standpoint, but from a broad hydrographic services standpoint, more on the Arctic. And you say, "Are all of these our waters to chart?" Well, we don't really know where those lines ought to be. It's a major part of the issue that does involve international politics as well as national security.

So, I hope you will take the opportunity to consider whether you want to place in your update greater emphasis on the Arctic. It's a very current issue.

DR. JEFFRESS: I think we also need to highlight the fact that we need additional resources to do this and not just to do this with existing resources.

MR. WELCH: Okay.

MR. DASLER: I wasn't going to get into this now, but, I guess since we're getting into a little bit of the meat of the report -- because I would also like to see, probably some stronger recommendations on the implementation of VDatum. I mean, I think we are floundering there a little bit. Then taking that a step further and the integration of GPS heights in conducting hydrographic surveys and potentially putting in some examples. I know that will take more discussion in moving that forward, but, I guess I wouldn't want to rule that out in addressing that a little further into finding number two and recommendations and even how it integrates in with recommendation and finding one as well.

MR. WELCH: Do other folks have something to say about the actual findings and recommendations as opposed to the supplemental material? Because, if not, I'm going to suggest a way of dealing with these findings and recommendations. I think what we've heard thus far is take the basic findings and recommendations. We need to evaluate whether or not in the findings and recommendations we have a specific reference to the Arctic. And we need to evaluate whether we need to

incorporate in the findings and recommendations any of the new Administration's strategic buzzwords. So we've got two looks at the findings and recommendations for possible changes. But, thus far, beyond that, that's where we are as far as findings and recommendations. Is that something people are comfortable with? [Affirmative non-verbal response.]

MR. WELCH: Okay. I would also add that we probably then ought to, as we adjust the supplementary material -- for example, on VDatum -- we leave open the possibility that then after we do that we come back to the findings and recommendations and say that we probably need to, in light of the discussion we've had and the supplementary material, we may want to once again reconsider whether we have something in findings and recommendations to reflect whatever we put in.

Are people okay with that?

[Affirmative non-verbal responses.]

MR. WELCH: Okay. Rebecca, are you keeping these two ways of proceeding?

MS. ARENSON: Yes, I'm scribbling as fast as I can.

MR. WELCH: I'm making some notes too. Okay.

Let's move down on the document. So we've got the keep recommendations the same with the caveats that we just discussed. Then update the text with new and current information, incorporate stakeholder information, new material from recommendations to the NOAA Administrator. That means recommendations that we've made.

So basically, at this point we're moving from Page 5 and 6 and we're moving into what I call "the five chapters." They aren't chapters, but they are two or three pages of narrative discussion of each one. There we have some things that clearly need some updating. For example, we've got -- well, let's look on Page 8, for example. We've got the NOAA ship projected end of service without replacement. This chart may or may not need to be updated, I don't know. But we need to evaluate that chart and say, "Is this the type of chart that needs to be updated?"

On Page 15 we've got some statistical information by budget year. It may be that we want to drop a couple of the out years and incorporate the most recent budget years that this can be done for. So there are several places where there are going to be things like that.

But there also are things in the text that either need updating or replacing and I think this is where our little volunteer teams to the extent we can reconstruct who volunteered to do what. It seems like to me if we can come up with two or three people per chapter to do the initial look and to do the initial analysis by means of a conference call on a fairly aggressive and a fairly designated schedule, come up with a rewrite.

RADM WEST: I think that's a great plan, but I think that small group has to have somebody in NOAA that works with them. For example, let's take Page 15 you just talked about. You talked about the agreement with the Navy to do the surveying and all of that stuff. We

can't put that down again because that is 3 years old. What needs to go in there now is we have already done this and we've got some progress. That can only come from your folks. I don't know what that is. Because most of this updating is going to have to come from the NOAA folks, quite frankly; the charts and the figures and the dates, and what's more important.

But we have to go to things like this where we say we're going to do this partnering. Three years later we should have done the partnering and this is where we are with that, and it's working out well or it's the right way to go. Back to aggressively doing the shoreline, isn't that part of marine spatial planning that if you don't have that, you can't go there from here type stuff. I'm not sure that I'm the right person. Put me down for my chapter, but I really need the NOAA folks to help.

MR. WELCH: What I envision is, let's say we've got a two or three person group that's volunteered to do this aggressively map chapter. There would be somebody, some central person whether it's a central person on the panel or a central person within the NOAA staff who would work with that group and say, "On October the 1st" or whatever date, "we're going to have a one hour conference call. And everybody that's on this team needs to have thoroughly read this chapter before that conference call, and we're going to go through this thing." And there's going to be a NOAA staff person on that conference call too, and we're going to go through and we're going to decide right there what our recommendations to the panel are. Keep

all this stuff the same. We need updates on this paragraph or this line. We identify to the NOAA people what it is that they need to come back to us with.

I envision us, you know, if it's just a narrative change one of our panel members does the rewrite. But to me the key thing is, is almost the forcing mechanism. I would propose that before we leave here tomorrow we have a schedule for when these groups are having conference calls. We know who it is who is going to participate on each conference call including whether it's Rebecca as a NOAA staff person, or Mike, or whoever, and we have this thing pretty well laid out and aggressive. Because if we don't, we're all going to go back to our normal pursuits and we're going to drift.

But I understand exactly what you're saying, Admiral. The statistical information or the, you know, saying "yes" or "no" this has been done and it was done in this way, we are going to need to get some NOAA input on that. Because we don't want to say something that is outdated or old, nor do we want to say something that's incorrect.

So I guess the first question is -- I mean, is everybody with me so far?

[Affirmative non-verbal response.]

MR. WELCH: Can we reconstruct either now or between now and tomorrow who volunteered to do what areas? Is that something we have or is attainable, or do we need to start over on that? Rebecca, I'm going to put you on the spot.

MS. ARENSON: I'm trying to find the notes. I have a bad feeling

that I didn't copy them onto my computer and they are sitting back in Silver Spring. So I'll see if I can find them.

Wait, Virginia might have them. I don't know if we need the summary or the actual minutes?

MS. DENTLER: [Inaudible.]

MS. ARENSON: We'll look over lunch.

MR. WELCH: I don't think that needs to be an insurmountable hurdle, because if we can't easily find it, we certainly don't want to send you all scouring through all sorts of -- I mean, we can re-volunteer pretty easily and we can draft the ones that aren't here to be part of the panel. If it's easily obtainable, let's obtain it. If it's not easily obtainable, just tell us and we will re-volunteer.

MS. DENTLER: I believe there was a lot of discussion about a plan of attack and there were some recommendations made and maybe some people kind of on the fly said, "Hey, yeah, I'll work on that," but I don't recall anything being set in stone. I think it was like, we'll discuss this at the next teleconference meeting and I don't know if that happened.

MR. WELCH: I don't believe it did.

MS. DICKINSON: As I recall, Tom followed up after the last meeting and put it in an email. I think he just made it up and just sort of sent it out in an email of who is doing what. That's the only thing I remember about it. I don't think it's worth searching for something.

RADM WEST: Let's just start over.

MR. WELLSLAGER: I agree with everybody else. I think it's just something we should just start afresh and make our assignments now instead of trying to go back.

MR. WELCH: Are people comfortable with that? I'm sure Tom would not object to his e-mail being superseded if we choose to do that. [Affirmative non-verbal response.]

MR. WELCH: Okay. Let's call off the search, Virginia and Rebecca.

MS. DENTLER: Let me look through my emails from Tom Skinner.

MR. WELCH: If you're willing to put a minimal amount of energy into that, that would be fine.

Okay, while she is doing that, we've got these five different discussion areas. Do we have people that want to right now volunteer to be part of the group for any particular discussion area?

For example, Elaine, would you be willing to be on the part that evaluates this page that says why NOAA needs to reach out to recreational boaters?

MS. DICKINSON: I was going to suggest that. I have all new statistics that have just come out on boating accidents.

MR. WELCH: Okay.

MS. DICKINSON: I can do that easy.

MR. WELCH: That's actually what I would call a sidebar, although it's a full-page sidebar. And it is recommendation number five. It is part of recommendation number five.

Does anybody want to work with Elaine on recreational

boaters, or do we want to give her our proxy?

MS. DICKINSON: There's more to finding number five.

MR. WELCH: I understand. Yeah, we need a larger group on finding number five. I don't know whether we need a larger group on the box. Do we have volunteers for any of these particular one through five?

MR. WHITING: I'll volunteer for recommendation one where the Arctic goes.

MR. WELCH: Aggressively map. Okay, so we are assembling little teams, and we've got Larry on recommendation one and Andy is --

MR. ARMSTRONG: I will join Larry.

MR. WELCH: -- Andy is part of Larry. And Gary?

DR. JEFFRESS: I'd like to be on recommendation number three.

MR. WELCH: Modernize heights and implement real-time water level, et cetera.

DR. JEFFRESS: Yes.

MR. WELLSLAGER: I would like to be on recommendation number three, and I'll help out with recommendation number four.

MR. WELCH: So Matt's part of three and Matt's our first volunteer with four which is strengthen the navigation services, emergency response capabilities.

CAPT MYRTIDIS: I'll be on five.

MR. WELCH: Minas is on five. Admiral West is on five.

RADM WEST: I think the climate change [inaudible].

MR. SZABADOS: That's a good place for it. What I was going to

suggest is from my perspective be supporting staff appropriately via my request program manager might be providing support for or having somebody focusing on climates, then put my name down provided --

MR. WELCH: Okay, let's get our panel folks on, and then we'll put our NOAA staff people on.

MR. DASLER: I can help out on one, but also on two and provide input on four.

MR. WELCH: We don't want to discourage volunteers, but we don't want to overwhelm anybody either. Jon is saying one, two, and four?

MR. DASLER: Yes.

MR. MCBRIDE: Recommendation number two and in particular as it relates to the section dealing with the channel full bottom coverages, and recommendation number three are of particular interest to me. Just as an aside, and I don't want to overweight the group that is working on very important number one, but just as you consider specifying the Alaskan sector, or kind of dealing with that be cautious that you don't prioritize funds away from the other important areas that are underway and which are still vitally important in the remainder of the country where we have a lot more shipping activity going on every day.

MR. WELCH: This may go back to the comment that I think Gary made about emphasizing that new funding sources or additional resources need to be located for some of the expanded Arctic activities. Also, I would envision -- obviously the work of each one of these little teams is going to be brought back to the panel. It

has to be brought back to the panel. So, in other words, there will be a chance for people that aren't on any specific team to say, "Wait a minute, you missed something," or "it needs to be said in another particular way." So we are delegating, but we're not delegating total authority to the initial workers. What we are trying to do is to get somebody to do something according to a prompt schedule that then we can all reassemble and do an evaluation of. So everybody will have input into all the report, it's just not necessarily at the same time.

MR. SZABADOS: I might recommend that the four members who are not here today be contacted and provided the opportunity to participate.

MR. WELCH: Right. Absolutely.

RADM WEST: Also this is going to have to be approved in a public venue too. And this would be awful hard to do in a conference call. We almost might want to shoot for the next meeting to approve it. Because even when we're all done with it, you're going to have to spend some time putting it together. Remember last time it took a couple of months to put it together smooth. Maybe we want to shoot for -- I guess it's March you're looking for to maybe that's the approval venue.

MR. WELCH: That does lead to sort of a -- I understand exactly what you're saying. That does lead to a logistical or legal question, as to what happens if the membership is -- if the new membership is appointed before the next meeting takes place. Is there some mechanism for the existing members to attend, vote? What do we do

about a situation like that? So that's something we do need to put some thought to and perhaps make sure we all understand.

RADM WEST: You don't need to have the people there putting it together. What you need is a majority vote of a quorum of the standing FACA to approve it in a public venue, that's it. So you don't have to -- it's like using a subcommittee. The input comes, but then the formal FACA votes to approve it or not.

MR. WELCH: Let's assume for a second that we, the committee, has what we consider to be a completed product other than the ministerial stuff by the end of the year. We're going to have to either have a conference call or we're going to have to have one last in-person meeting. Is NOAA available to support us one way or the other in that situation?

CAPT BARNUM: I think, when the term of the appointments end, that when the new slate of members comes on board, then obviously you have new players. There's nothing to prevent the former members to come to the meeting and have public input or submit letters of comment. I think that it may be fruitful as we move forward to -- and I know there are challenges with a conference call but maybe we can come to some consensus of the general direction of the document and how it should be finalized. That may be a way forward. Certainly there's an option of potentially putting another meeting together, but we can discuss that further.

MR. WELCH: Let's defer the answers to that question just knowing that we're going to have to come up with some answers so we're all

clear about that. That reinforces the need for us to get our act together and move according to a pretty aggressive schedule and stick to the schedule to try to get this product in the shape that we want it in.

So, Rebecca, are you at the point, can you tell from your notes -- are you able to go through finding by finding and say who has volunteered?

MS. ARENSON: For the different chapters?

MR. WELCH: Yes, would you do that, please?

MS. ARENSON: Sure. So for finding one: Larry, Andy, and Jon volunteered.

For finding two: Jon and Adam.

For finding three: Gary and Matt, and Adam too, I think. Is that right? Okay.

And for finding four: Matt and Jon.

And finding five: Elaine, Minas, and Rear Admiral West.

MR. WELCH: Virginia?

MS. DENTLER: I found emails and Tom Jacobsen back in the email chain had volunteered for chapter two and chapter three. And that's all I have for people who aren't here.

MR. WELCH: Okay, so if we can add Tom Jacobsen to those two chapters. And why don't you put me down for finding one, please?

MS. ARENSON: I was going to suggest that, realistically you're not going to have a final document to approve before the end of the year in terms of layout and everything, but it seems that the crux

would really be the text that everyone would agree on. A figure is maybe going to change a little bit and the photos might change a little bit and the layout might change. But if you could all agree on the text before this groups terms end, then I think that would be your document. You could bless it even if you don't have control over the final layout.

RADM WEST: I wouldn't worry about the terms. I'm chairman of another NOAA FACA and we just had a meeting in Seattle where five new came and the five old went in the same meeting. So it's really not -- you can do whatever you want to. I wouldn't worry about the term limit part of it.

MS. ARENSON: That's not my understanding of FACA legislation, to be honest.

RADM WEST: No, you can do that. It's when you swear them in. You can swear them in whenever you want to, or not.

MR. WELCH: Well I would like to get us to the point where -- I mean, I think this thing out to be produced in a way that has this panel members' names on it, and the cover letter ought to have Tom Skinner signing as the Chair. I think that, first, it reflects who did the work, it gives credit to those who did the work. I realize what you're saying about layout and that type of thing, but I think we could probably get to the point where we vote on -- do we have to vote on the layout?

MS. ARENSON: No.

MR. WELCH: No. I don't think so. All right. But if we could

get to the text and have a vote on that, then I think that will carry over, you know, we can allow NOAA to make a few independent judgments about layout and things like that.

MR. ARMSTRONG: I would suggest it could even get to the point where it was submitted to the editor, leaving room for a couple of minor text polishing.

MR. WELCH: Okay. I'm going to propose that I need to talk with Tom and give him a report about how we're proceeding, but I think there ought to be somebody, whether it's Tom or whether it's me. I'll either volunteer him or I'll volunteer me that actually coordinates and schedules these conference calls and sets up a schedule for them. But I would envision these conference calls taking place in October. I would also envision that there really only needs to be one primary conference call per group if people have done some preliminary work ahead of time and have reviewed it and made notes to themselves as to what they want to advocate.

So is that in comport with what people are comfortable with?

[Affirmative non-verbal response.]

MR. WELCH: Okay. Then that brings us back that we do need to assign a NOAA staff person to each of these conference calls. So, Mike, what were you suggesting about where your resources could fit in?

MR. SZABADOS: I can identify a number of individuals depending on which chapter could be support from our perspective.

MR. WELCH: I guess what we need is -- you want to say for which chapters are you going to work on? When I say "you," I mean you and your people.

MR. SZABADOS: All five.

MR. WELCH: All five. Okay. All right, well then --

MR. WELLSLAGER: For clarity's sake is Mike's staff or the NOAA staff going to be the ones that take the recommendations from the conference calls and put pen to paper and come up with a new text that is going to be included in the recommendations? Are they going to be the drafting people for wordsmithing?

MR. WELCH: No. I think as much as possible we ought to be the drafting people with the exception of, if we need a chart updated that we can tell the NOAA folks you've got to update this chart for us. Or if we've got a question, for example, Admiral was talking about the prior document was urging consultations of a certain type. The NOAA people would need to get back to the little working group saying, "Well those consultations took place and here's the result." Then the panel people would write the narrative reflecting that information that NOAA provided. But I think as much as possible, we ought to be the drafters and NOAA ought to be the support or ministerial type folks.

Rebecca, are you comfortable with that approach?

MS. ARENSON: That sounds lovely.

MR. WELCH: Let me also suggest this. As far as who from NOAA is going to participate in each panel conference call, can NOAA basically

decide that among themselves and let us know, rather than us trying to extract that today?

MR. DASLER: I think the only thing I would comment on there is that it be sort of input across the board, so not any one offline office or anything. But that there's input from NGS and Hydrographic Survey Division. Then the group would then take all of that into account in coming up with our recommendations as opposed to recommendations from some division within NOAA.

MR. WELCH: Okay. I think I know what he's saying. What he's saying is, we don't want work to be done on a certain area and then one of the offices of NOAA say, "Wait a minute, we didn't have anything to say about that, and we should have been consulted." So NOAA needs to figure out among themselves who needs to be consulted and have those people participating in the conference call.

MR. WELLSLAGER: So if I understand you correctly, then NOAA will get back to either you or Tom with their designees for each of these five areas of concern before the conference calls are scheduled?

MR. WELCH: That's what I envision. If Rebecca's comfortable with that.

CAPT BARNUM: Yes, NOAA will provide the subject matter experts related to these five recommendations from the three offices.

MR. WELCH: Okay. I would envision these calls taking place the first half of October. Again, I want to talk with Tom, but what I would say is whoever, whether it's Tom or me, will probably try to -- well, I don't know. Let's think about how to schedule it, whether

people want to get together while we're here, each little group and see if there's an agreed upon time people want to do; or whether we just want to have the convener to send out something sufficiently in advance and say this is when the call is going to be. If people can get together and agree upon when they want to do a call, that probably would make life easier. We'll get back to that tomorrow with our discussion tomorrow.

MS. ARENSON: Ed, what I can do is create a little calendar so people have something to visually to look at. Then maybe start penning in some stuff.

MR. WELCH: That would be good. The other thing that we could possibly do, and we could possibly do it here and tomorrow and start getting some input, is -- maybe tomorrow we collectively could look at the sidebars and photos and see if there's anything in there that we either say, "This is absolutely right and we need to keep it the way it is, or this is outdated, or this was a lousy photo" and start identifying something that we could give to each little group to help them with their work. If we want to take some time during our session tomorrow, we could do that.

Then the stakeholder information. I think that's sort of up to each individual working group as to what extent, if any, they want to refer to some of the stakeholder presentations to the panel. I mean, to me that would be part of the supplemental stuff. It's not the thing that we concentrate on or we feature, but it might be something that somebody felt like was particularly useful that could

be mentioned in the supplementary chapters.

Can we scroll, Virginia, and go to the timeline?

We are on the verge here of what this says to do in September. Agree on an approach. I think we still have some fleshing out on the approach, but at least we are moving forward. We would have the conference calls in October as aggressively as we can get them scheduled. Then the panels would do their work based on the report and send in some revised text to probably Rebecca. We would need to collate it and send it out again by email where we can start looking at things.

MS. ARENSON: So I just want to mention that Virginia is really going to be taking the lead on a lot of the coordination from the NOAA side.

MR. WELCH: Thank you, Virginia, very much.

MS. ARENSON: So she'll be taking a lot of the input, and then there will be a group of us within NOAA working on putting something together.

MR. WELCH: All right. Good. We're sort of deferring -- at least today, I think -- what we do and once the individual groups finish their little projects and report back. There is going to have to be a mechanism for collating it, distributing it, reviewing it collectively, and, I guess the question is: are we going to be able to go directly from each to groups little work to a decision point by the panel? Whether it's an in-person meeting or a conference call, or whether there needs to be some kind of back and forth communication

before then.

MS. DICKINSON: Ed, what might work is the way we've handled some of the letters that we've approved and things like that where somebody is collecting all of the changes -- I guess that would be Virginia -- sending something out, asking for comments back, and then assimilating them. Then all of us get something by email to look at and comment on. It seems to have worked in the past. I know this is a bigger project, but we're all very familiar with it already.

MR. WELCH: But it's not that much bigger of a project. It looks like a big project, but if we break it into pieces like we are doing and if we remember the philosophy that we are trying to -- the basic goal is to reaffirm with either no changes or not many changes those findings and recommendations. Everything else is sort of icing on the cake. We want to get a new report with endorsed recommendations to the new NOAA Administrator as quickly as we can. We have to remember that that is the goal and we don't want to let the supplementary parts of the project so retard it that we flunk that particular goal. So it's not like it's a rewrite of the entire report or starting from new. If we envision it that way, I think it is manageable.

Admiral, were you going to say something?

RADM WEST: Yeah. The real driving factor is that at some point you've got to publicly announce that you're going to have a meeting to approve this new report. That really drives everything. Before you vote on a new report, we all have got to read it so we can vote one way or the other. So at some point when it is done to the point where

we can all read it, then you are going to have to have whatever it is, 30 days -- I don't know what the latest. Is it 30 days?

MS. ARENSON: 15 days.

RADM WEST: So at some point you're going to put it in the National [sic] Register that there will be a meeting of such-and-such to approve the new updated HSRP. And it can be a conference call, probably, but it has to be announced ahead of time before it's ever approved.

MR. WELCH: But it is 15 days in advance in the Federal Register?

MS. ARENSON: Right. It has to -- to get the notice published, it has to be a minimum of 15 days before the meeting is actually held.

MR. WELCH: So then there's the "x" period of time between getting it to the Federal Register and when it gets published.

MS. ARENSON: About 4 days.

MR. WELCH: So we are talking at least -- we need to think in terms of 3 full weeks. Fifteen days plus a working week ahead of that to get it to the Federal Register. So if, for example, we wanted to do something by December the 15th -- just for example -- we're talking about making a decision about that before Thanksgiving. Okay.

We'll, again, I think we need to get a little bit more input from NOAA as to in-person meeting, or conference call, or what they would prefer and what they could support. Does anybody here feel strongly we need to try to meet in person on this?

[Negative non-verbal response.]

MR. WHITING: I guess I always have strong feelings about

telephone calls that are closed to the public, except in a travel to Washington. I would object to us having a meeting like that again.

MR. WELCH: I understand. Okay.

Anybody else?

MS. DICKINSON: My memory might be fuzzy, but I actually do not remember voting on the original report. I have no recollection that we needed to vote on it at all.

MR. WELCH: Shhhhh. Now you've done it.

MS. DICKINSON: Sorry.

MR. ARMSTRONG: I think there was a vote on the substance of the report.

RADM WEST: I think it was in Washington that time we had the meeting.

MR. WELCH: We are going to talk some more about this in the session tomorrow. But are there things about this we want to discuss today that we haven't gotten to?

DR. JEFFRESS: I have one question. The graphics in this is pretty good. Did NOAA do these? This is what NOAA is capable of? I think it's great. I'm just not sure whether you sent it out or what. [Offline discussions.]

MR. DASLER: I guess while we're on that subject. That said, it seems like we should have something in terms of the graphics, and maybe NOAA can be thinking about this, that differentiates the cover of this report from the new report so it kind of stands out when they're being distributed.

MR. WELCH: If nothing else, we could change the background color. I think we need a picture of Dr. Lubchenco and Barack Obama on a ship. Can we arrange that? We actually have a picture of the Secretary of Commerce on the NOAA hydrographer.

I think this has been very helpful and productive. I thank folks for their contributions. We'll pick this conversation up tomorrow and see if we can bring a little bit more form to the discussion. This has been very helpful. I really, again, want to thank Rebecca for her outline because it really helped focus the discussion.

So at this point we will adjourn for lunch. We will recess for lunch.

[The public meeting recessed at 12:03 p.m., September 23, 2009.]