U.S. DEPARTMENT OF COMMERCE

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 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

 (NOAA)

 HYDROGRAPHIC SERVICES REVIEW PANEL

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 PUBLIC MEETING

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 THURSDAY

 SEPTEMBER 1, 2016

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The Hydrographic Services Review Panel met in the City Club of Cleveland, Conference Room 200, 850 Euclid Avenue, Cleveland, Ohio, at 8:00 a.m., Joyce Miller, Vice Chair, presiding.

MEMBERS PRESENT

JOYCE E. MILLER, HSRP Vice Chair

DR. LAWSON W. BRIGHAM

KIM HALL

EDWARD J. KELLY

CAROL LOCKHART

DR. DAVID MAUNE

CAPTAIN ANNE MCINTYRE

SCOTT R. PERKINS

EDWARD J. SAADE

SUSAN SHINGLEDECKER

GARY THOMPSON

NON-VOTING MEMBERS

ANDY ARMSTRONG, Co-Director, NOAA/University

of New Hampshire Joint Hydrographic

Center

RICH EDWING, Director, CO-OPS, NOAA

DR. LARRY MAYER, Co-Director,

NOAA/University of New Hampshire Joint

Hydrographic Center

STAFF PRESENT

REAR ADMIRAL SHEP SMITH, HSRP Designated

Federal Official

MIKE ASLASKEN, Chief, Remote Sensing

Division, NOAA/NGS

GLENN BOLEDOVICH, NOAA/NOS

DAVID CONNER, NOAA/NGS

DAVE HOLST, NOAA/NOS

CHRISTA JOHNSTON, NOAA/NOS

BRANDON KRUMWIEDE, NOAA/OCM

GARY MAGNUSON, NOAA/OCS

RACHEL MEDLEY, NOAA/OCS

LYNNE MERSFELDER-LEWIS, HSRP Coordinator

RUSS PROCTOR, Chief, Navigation Services

Division, NOAA/OCS

GREG SCHWEITZER, NOAA/ORR

DARREN WRIGHT, NOAA/CO-OPS

ALSO PRESENT

JACKIE ADAMS, Environmental Scientist, Great

Lakes Restoration Initiative, Great

Lakes National Program Office, U.S.

Environmental Protection Agency

CAPTAIN PAUL D.J. ARNETT, Chief, Preventive

Division, 9th Coast Guard District for

the Great Lakes and Saint Lawrence

Seaway, U.S. Coast Guard

 C-O-N-T-E-N-T-S

Overview and discussion of day two 4

Members discussion 5

Public comment period 40

Adjourn 44

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

 8:02 a.m.

VICE CHAIR MILLER: Hello? I think Joyce wants to start the meeting everybody, in the hopes of getting out of here early, maybe.

Let's -- so, good morning and we call the third and final day of the HSRP fall meeting to order.

We had a fairly thorough summary of yesterday's happenings and we'll almost certainly rehash it again, well, we will certainly rehash it again in talking about the final letter.

So, instead of -- in lieu of that, I think I'd like to go around the table and get each members', I mean, you've heard what I heard in that -- in the summary. But, I'd like each member to point out the thing they thought most important and any other thoughts on the meeting.

Who wants to go first? Kim?

MEMBER HALL: I thought I did it yesterday. I think the biggest piece for me, and it's not anything specific to the Great Lakes and I do apologize to anybody's who's on the phone and listening about the Great Lakes.

But, just in understanding how our new DFO's looking at things. It's not significantly different than our previous DFO, but, the concept of, you know, training to ignore and a couple of other things of how we can, as a panel, help with the -- whether it's the clutter issue or something else to try to help resolve some of that or at least give some advice on where they could go with that.

So, that's where I kind of come out for the most important thing to me.

MEMBER KELLY: Yes, I think that's important. I think also, we need to look at interagency cooperation and I was kind of struck by the, not the overlap, but the underlap issue as we discussed a little bit.

And, I think that's certainly an issue for interagency, particularly with the Corps to examine and identify what those either overlap or underlap issues are for inter-service cooperation for the benefit of public good.

Because, there are some gaps with good intention on both sides, but there are some areas that maybe can be eliminated and/or that need to take place.

I think that was probably one of my highlights on this.

MEMBER MCINTYRE: For me, what I, excuse me, for me, what I found the most interesting was just learning more about the Great Lakes and what the needs were here.

I just really had no idea that the trade was so robust and also that many of the needs that they have, they didn't feel were being met.

MEMBER BRIGHAM: You know, I, too, see all of the partnerships here and international partnerships, state and federal partnerships and relationships and all the dynamics of that.

A lot of people get it that it's economics and its viability of this and using the waterway. They get it better than a lot of people, I mean, in Washington, so, I think it's pretty robust and in action.

Of course, the size of the congressional delegation here is quite huge with all the states. And, so, that, you know, they have some leverage on things that related directly to our HSRP responsibilities.

So, it was a good meeting.

DR. MAYER: I said I'd reiterate a lot of what I've heard already because I guess I naively wondered why we were coming here. And, I really understand now.

And, I think in a kind of a microcosm, there are a lot of really good examples here of both successes and problems. And, I think the successes are, it's a place where there is a lot of interagency, intergovernmental, international cooperation and I think that's the good side.

I think the point about the gaps, you know, there's lots of overlap, but the point about the gaps is a critical one. I think that is something that this panel can pick up on and maybe do something about.

I think that's kind of the bottom line is that, as I, although I guess I've been on this panel on paper for a long time, but rarely ever here.

I think we have to really focus on the things that we can actually do in terms of making a contribution and try to find those in ways that we can help the agency. And, I think this has been helpful in leading us in some of those directions.

MR. ARMSTRONG: So, thinking in terms of the presentations that we heard, I thought the most interesting thing or notable thing that I heard or that struck me was the need for bathymetry in the nearshore areas and in the lakes.

I have done surveys in the lakes and felt that, perhaps there really wasn't that much remaining survey mission here, but it seems that for a variety of reasons beyond navigation there are probably significant hydrographic survey requirements remaining here.

MEMBER PERKINS: Yes, just to build on what Andy said, that the map it once, use it many concept like I think we heard compelling testimony about there's a real opportunity, you know, here in the Great Lakes in that nearshore area, you know, to be able to apply that map at once, use it many, you know, concept.

A couple things that I heard that I just, and, I think we went over them rather quickly, but I thought they were significant.

And, that's that the agreement with the Army Corps of Engineers is now in place. You know, that was a recommendation that the panel, you know, put forward 18 months, two years ago. You know, so glad to see -- glad to hear it reported that that's now in place.

You know, the other piece that the Remote Sensing Division actually has a scripted mission assignment now with FEMA. You know, and that that technology that the oblique camera and in the rapid orthophoto processing that they've been able to do and deliver, you know, that they actually have a place in the response team with FEMA now.

I think that's significant and that is also something that the panel had addressed in a prior recommendation letter.

You know, the eye-opener for me, and I don't know if you can validate the economic, you know, data that was provided in the testimony that we heard, but the impact, if the Poe Lock is disrupted, you know, that the dollar, you know, 30 days disruption on that lock and in the significant that that will have to, you know, to commerce and navigation on the Great Lakes.

I thought that was really eye opening.

I think the last thing I would mention is that the coming changes in the datums. So, the international Great Lakes datum and the 2020 datum and the challenge that NOAA will have in communicating that and how that's going to be addressed, you know, with the navigation products, you know, that NOAA provides.

And, I think that needs, you know, this needs a good PR campaign, you know, to help the public, to help the user understand, you know, what that means to them, you know, when they're either on their recreational boat or on their commercial boat.

MEMBER MAUNE: I'm really glad we came here. I learned so much about the Great Lakes.

When I saw that video of the ship going up the Cuyahoga River or down, which ever it was, the first time the guy said the joke about your too close to my bridge and you got slapped him, I thought it was a joke about a Donald Trump type of reaction that you slap back at somebody that criticized you.

But, the joke was that he was close enough to be slapped and I realized that when I saw how can they put that big ship up that little channel.

And, I guess the pilots, like Anne there, I came to appreciate -- I had no idea they were such narrow channels with these big boats.

I focus on the issue papers. I think we have three good issue papers this week. I have been given a few more recommendations as recently as this morning on how to maybe sharpen a couple of those papers and I'll see what I can do.

For our future issue papers, we have four possibilities. Anne is writing one on prevision navigation and she sounded like it would not take her long to get that to me.

Bill is going to write one on the Corps of Engineers and NOAA and that underlap issue is a good one.

Ed Kelly, if I'm not mistaken, and Gary Thompson were going to work with Mike Aslasken and other to put together one on NOAA emergency response. I have no idea when you might be able to get that to me.

But we'll be starting our -- I presume we will resume our monthly meetings on the last Tuesday of September to review what we have and probably from Anne will be the first one out of the hopper.

And, we'll probably have one, unless you see a reason to change it anybody, the -- we've been going with the last Tuesday of each month for our monthly meetings.

And, then, Susan was a maybe on recreational. So, it's been a maybe for a while.

MEMBER SHINGLEDECKER: It's not a maybe, it's just not tomorrow.

MEMBER MAUNE: Okay.

MEMBER SHINGLEDECKER: It's a definite with a little longer time horizon.

MEMBER MAUNE: Okay.

All right, that's all I have. Thank you.

MEMBER LOCKHART: So, for me, there was a couple of things that stood out.

We heard time and time again how there are many PORTS within the system, but it does have to be treated like a system, the Great Lakes and Saint Lawrence Seaways, a system.

And, that highlighted two things, I think. It highlighted again the problems we have with funding of PORTS which I know we talk about ad infinitum but I think it's glaringly obvious in a system like this.

And, then, the second thing, I think as taxpayers, we're very critical of the overlap sometimes between the Army Corps and NOAA. But, I think the thing that came out in this meeting which was really important was the fact that that underlap, if you will. And, I would echo what Ed said. I think that's a really critical issue.

And, so, I thought those are the two things that stood out for me.

MEMBER THOMPSON: One thing that stood for me is the paper I wrote on the reference frames. I think coming here was a good example of why we need to get an early start on PR because there are so many users of this will be impacted by the reference frame as this was a good example of the Great Lakes here because of their new Vertical Reference Frame 2020 and then we go to the full in 2022.

So, I was glad we came here just for that reason and I think the timing was good for the paper.

I saw a lot of examples of cooperation between federal agencies. But, one thing did stick out, I think one of the presentations yesterday, someone mentioned that there was some data the Corps has that NOAA couldn't use because of format and something. So, those areas I think we need to continue to work on.

MEMBER SHINGLEDECKER: I guess my kind of echo those as well.

I was thinking that the systemic nature of the Lakes as a system and how, you know, one weak link in that system could bring navigation -- commercial navigation to a halt in the Great Lakes pretty quickly.

And, that just seemed really vulnerable to me.

In the systemic nature of it, the role that partnerships play, certainly in the international dynamic of that and, you know, what the impact of a lack of a physical navigation manager here has on those relationships or how they could be even further greater if that was there.

And, then, I think kind of, while it is a system, the differences between the Lakes, and specifically Lake Erie and the specific challenges that that Lake faces and, you know, the needs for current meters and water level and better understanding there to manage specifically at the Toledo end.

I mean, it's a small port. You've got regional economies up here that are still struggling that have not recovered. And, so, how do you overcome that funding challenge? Because I don't know that you're going to find it in the region given where they are in their recovery. But, the dire needs for that, for those gauges meters.

MEMBER HALL: I just want to add one thing, I learned how to use lipstick to show the water level.

MEMBER BRIGHAM: Joyce, could we have Lynne send us a copy of this new agreement between the Corps and NOAA? Just so we -- just so Scott and I know this for setting the recommendation up the line.

VICE CHAIR MILLER: Yes, good thoughts and suggestions all.

I guess the thing I was amazed at, I had never really realized the seiche effect and what it could do to Toledo and it just -- I just can't even imagine.

And, if you had really a severe storm here, my goodness.

And, of course, since I'm a mapper, I have to echo Andy's statement that -- and Scott -- but, that the mapping needs are indeed good.

MR. ARMSTRONG: If I could give you anecdote, I was on a survey party. I was leading a survey party here surveying the upper Niagara River which is at Buffalo.

And, while I was here that summer, we had several days of strong winds blowing towards the southwest and piled up all the water over in Toledo.

And, then, the wind changed rather suddenly and people in downtown Buffalo had been down closer to the water and the seiche came in so fast that they basically had to run for their lives as the water rose to escape the rising water level here and that shift that happens so fast.

VICE CHAIR MILLER: Okay.

I think that was a pretty good recap of the meeting overall.

My next agenda item says, define questions for HSRP to address or develop plans for the next meetings.

We have developed a meeting schedule, I believe. We don't know the dates yet.

Besides the letter, I mean, basically our committees need to keep on making progress on their various issues with regular meetings.

And, I think we decided on a LIDAR topic for the next meeting. Are there any other suggestions for possible, especially being in Seattle.

I mean, one suggestion I thought of being in Seattle, they have a pretty extensive vessel control system there, I believe. I don't know that much about it, but that might be something of interest for the next meeting.

Are there any -- are there other suggestions for the Seattle area that people would like to see?

Susan?

MEMBER SHINGLEDECKER: I had offered since the recreational representative didn't make it here in Ohio, I have offered to find someone in Seattle in the Pacific Northwest.

There's some interesting dynamics going on in Oregon and Washington. They have a very high number of paddle craft and the two states are working very -- in interesting ways to look at user conflicts with their large number of paddle craft. And, I'm sure that could come into play with such big ports up there as well. So, I'll see what I can do.

VICE CHAIR MILLER: Scott, did you have something?

MEMBER PERKINS: I was just curious, Admiral, will we have the or will you be able to report at the next meeting results of using the ROVs that are being -- that will be launched from the TH?

RADM SMITH: Yes, in fact I just took some notes over the course of the week of the things that I thought I heard more interesting hearing about.

MEMBER PERKINS: Thank you.

RADM SMITH: And, those, I have three that I think could be appropriate for next meeting, report on main systems, which is the one you just mentioned.

The charting of channels in Anchorage is I think a little bit more of a deep dive as to how that works now and where potentially the gaps are.

And, I clearly can work with Bill over the course of the next six months.

And, then, walk through our sort of hydro processing work flow. I think that would be appropriate for Seattle. And, it's -- I think it's easy from the outside to wonder what happens for months and months and months and then, but, you know, actually through it could be interesting. And, we've got some folks that could do that there in Seattle.

And, then, I think maybe later, maybe in Silver Spring would be the place to sort of do a little bit of a deep dive as to how the charting system really works. Because I think we don't all know that either.

And, most people in Coastal Survey don't know that. So, I would offer those.

VICE CHAIR MILLER: This is Silver Spring?

RADM SMITH: Yes, for the charting one.

VICE CHAIR MILLER: For the charting one?

RADM SMITH: And, we'll do the hydro and -- we'll the hydro processing work flow in Seattle.

VICE CHAIR MILLER: Kim?

MEMBER HALL: Well, we talked a little bit about how to get more stakeholders and people working with, and I think academia there's a different, sorry, there's not just U&H, but the University of Washington has their advanced physics lab, I believe, as well. And, they're working on UAVs mostly with the Navy, but that might be a cool field trip to go and see what they're working on and some of their fun toys. I like seeing toys.

VICE CHAIR MILLER: Thank you.

One suggestion in a conversation sometime in the last two days, oh dear, I forgot. It'll come back.

Other suggestions?

DR. MAYER: If, depending on, I don't know if we've got the time, but one of the icebreakers is in -- well, one of them will definitely be up.

But, I was just suggesting that if one of the Healey or the polar -- working polars then we might be able to arrange a tour of that, too.

VICE CHAIR MILLER: Okay.

It sounds like it would be a very busy meeting. I suspect three days is going to be necessary if we cover even 70 percent of those topics because it's --

Oh, I know, especially in Seattle, because it's such a green state, I think we should make a real effort to include environmental groups, you know, in terms of, you know, hearing from the very green Seattle side, too, about, you know, their perception of NOAA and, you know, how we can -- how, you know, how we serve them and how we can do better possibly. So, that would be my suggestion. I did remember.

Lawson?

MEMBER BRIGHAM: Well, it's here, it's a huge region with lots of congressional delegations and we need the full court press to get that, try to get either a Congressman, a Senator or even in a social thing and get the staff at the meeting.

So, there are lots of districts there with Tacoma and Seattle.

So, again, you know, it's hard to do, but, you know, we had Congressmen in LA, he spent the day with us. So, it's possible.

And, I think the delegations there are closer to the city and understand maritime issues better than other areas.

So, get the full court press, get the information out and see if we can arm twist some people to come.

GB: Yes, we'll be making a bigger press there. Plus, NOAA has a huge presence in the region and is very near and dear to the delegation out there.

So, I think we'll have a much higher rate of success there.

And, on the other side of the equation, we also have off the coast of Washington, of course, is the marine sanctuary, so, that might be an angle in terms of the NGO and the environmental community.

I'd be interested in how that community -- rather than perceive NOAA at large, kind of like here, how is our foundational data by them or value to them would be a good angle to get from them.

These folks here did a great job of tying on. We really don't have anything to do with navigation, but, boy, your stuff is really important to us in these other ways.

And, I don't know we'll get that from those folks, but, we can certainly make a try.

But, I think the congressional delegation thing, we will -- the governor of the state is a former Congressman, is a huge supporter of NOAA, Governor Inslee and several levels I think we can get state and federal, we'll be focusing on that.

MEMBER KELLY: Just as a footnote on, if we're going to set up a panel NGOs or environmental groups, there's also a fairly large and active Native American Tribal organizations up there that primarily impact with the endangered species, some of the hunting, the fishing, et cetera.

We might want to get them for their viewpoint as far as applicability for how they use charting in that area as well.

RADM SMITH: I just wanted to pile on on Glenn's thought on the sanctuaries and their intersection between sanctuaries and mapping.

Because, particularly, out there, those sanctuaries have leaned forward much more and as building and mapping into their plans for how to manage their marine protected areas.

VICE CHAIR MILLER: Okay.

I certainly think that's quite a list for Seattle. And, at this point, I'd also like to thank Lynne and her -- and the Office of Coast Survey staff for all the hard work they do in setting up these meetings.

I know sometimes we're all sort of a pain in the neck, but we do appreciate it.

Ed, do you think there's, at this point, there's any cause to go through -- back through the papers or do you think we're at a state where we can do some final edits and send them out for one, you know, a final final look?

MEMBER MAUNE: I was asked if I could do anything to sharpen the opening sentences on a couple of those papers.

VICE CHAIR MILLER: Including mine and --

MEMBER MAUNE: Yours and Gary's as well. And, I would need to look at that to see what I could come up with.

Of course, that's -- Kim specializes in that, too. So --

MEMBER HALL: Well, I think what the -- with Gary's paper, I think the issue there is we either go and make it fully nontechnical and we speak to, you know, the general public who don't understand it, or, it's good as it is.

So, I just -- I don't know that there's much more wrangling. I think the sentence that you added, it makes sense. It kind of was in maybe nobody's going to read the technical aspects of it.

But, you know, I'm kind of remiss to continue to play with these papers because we -- they're never going to be perfect.

MEMBER MAUNE: Yes.

MEMBER HALL: Again, I think what we found with the PORTS paper is we finally figured out kind of our thesis statement and what the issue really was. And, it was the vulnerability to the funding mechanisms that we've seen.

So, if there's something else with the datum that we want to have a different way of approaching it, but to continue to try to put, if it truly is a pig, the lipstick on the pig. That's just not something I'm interesting in doing. That's kind of a waste of my time and Dave's time and Gary's time unless we want to do a different approach.

And, then, we'd need somebody, we'd need help with somebody going and who can really do that technical to nontechnical writing. But, that's -- because it's something I know enough about, I don't feel comfortable doing that. Other times, I've been able to do that.

As for Joyce's paper, and I'm not trying to make author's any blame. I think it's fine, again, the way it is. I think there were some great suggestions this morning by Glenn about how to make some comparisons that are compelling.

You know, do we want to do that? That's fine. I think we can do some tweaks there.

And, I think the PORTS paper is just fine.

So, I really am remiss to continue to -- we spend a lot of time on it, we spend a lot of time talking about it. Is there a point where it is good enough? It is the 80 to 90 percent solution. I mean, we're happy with it and it shows what the panel's actually trying to send up the chain.

So, that's kind of where I'd ask is if there really is a question about the datum paper, that's got to be a complete rewrite in a nontechnical sense or it's just fine the way it is.

VICE CHAIR MILLER: Actually, one suggestion I had, I was starting the letter this morning. And, I went back to get the title of that. And, I thought, it's a very technical title that wouldn't necessarily draw in, you know, most people would say, well, I don't even know what those things are, so why would I read this?

And, I was wondering if one tweak to the paper might be to make the title something that datum changes and their impact on everyone or I just thought maybe that would help to make that paper more accessible.

MEMBER MAUNE: I think that's a valid suggestion. And, I can work with Gary on that part of it.

I can also -- it's really one paragraph in Gary's paper that is more technical that, perhaps, I can look at that to see if it can be a little less technical. So, I can work with Gary on that paper.

I've had suggestions that we need a better zinger up front on your paper. And --

VICE CHAIR MILLER: Yes, I've had that suggestion, too. And, I considered that and I thought it was in -- I don't know, I think legislative mandates are compelling to some people and that's the reason I started with them.

I mean, if the general feeling is we should make it bottom line up front completely, the bottom line is in the second paragraph, not the first --

MEMBER MAUNE: Yes.

VICE CHAIR MILLER: -- is the difference.

MEMBER MAUNE: We're trying to have some degree of consistency between all these issue papers so they have somewhat the same look and feel. And, we try to hit them hard with the opening sentence.

But, frankly, I need to take a look at that again. And, like some of -- like she said, sometimes you have to stop. It's not perfect, but it's close to being perfect and we --

One other point I wanted to make was that on the paper on PORTS, I really like that map that had the three colored dots on it. To me, that sends an important message and I'm wondering, do we have way where we can appropriately get that issue paper in the hands of all the Congressmen and Senators who have red and yellow dots in their areas, that they might be able to influence something about, hey, this is unacceptable. We need this stuff, too.

Is there a way that we can get these papers to the Senators and Congressmen so affected?

GB: So, we've talked before on the ethical issues. You know, your job is to advise the Undersecretary, not so much your Congressman.

All the page group papers, when they're finished, should be posted on the website and any organization, including yours, can go and download them and share them with whoever they want.

This is -- don't say, I'm from NOAA's HSRP, this is where NOAA's interests ought to be recommended to anybody's member.

So, those, once they're up and freely available, it's not the panel's job to get them to Congress. It's the panel's job to make sure they're available for people who are interested in these programs to use.

Because your job kind of ends and that, you know, we've had this conversation with them. We need to be careful about that.

But, if the rules are, take your HSRP hat off and now I'm Ed Saade from Fugro or I'm Dave Maune from Dewberry, right? And, we've got these compelling papers that NOAA's Advisory Committee put out.

You're perfect -- there's a line there and as long as you stay on the right side of it, these papers are very useful and they're public, then you recommend to the Undersecretary's public and they are posted and that's kind of the avenue.

And, not just your organization, but any organization with an interest are free to use them and to develop their scheme for getting those to the Congressmen.

But, it's not going to be the agency's job, including you as part of the agency, especially government employees, it's going to be somewhere else, I think, to make that.

Our argument is going to be compel for the transition. That is different than Congress. And, the administration, we can use these documents, you can advise your -- you're advising the administration, they're full cycle with your HSRP hat on.

But, externally, with Congress, you need to be a little bit careful. Because, technically, if you go to the -- if you go to Congress as an HSRP member, you've got to be clear through NOAA and DOC Affairs to do that.

So, it's a -- that's just the line. But, that's -- I think they're very useful. I think these documents are useful in many venues.

And, one final thought, on the kind of the punchy line, I've already talked with Joyce this morning about what's that cover document going to look like. And, that's where in each -- one of these papers, we're going to have two sentences, that are going to be more important than the grab that's going to get them.

Because, there's going to be a paper on top of the six papers that's going to be for the transition. Right? That's going to talk about the importance of each of these. And, that's where you really need to have your strong hooks, I think.

So, that's going to be worked on, not here at this meeting, but I think in between and I think we've got a couple folks on the panel who are going to take a look at that and get that done.

VICE CHAIR MILLER: Yes, Bill and I are going to try to develop just a -- and this should definitely be just a one-sided, one page, one side letter that says, you know, as -- to whomever we are -- the transition team, the incoming permanent team, whoever, you know, we'd like to draw your attention to these papers that the hydrographic services review panel has, you know, has created and the six papers are, you know, title and whatever the zinger is.

So, Carol?

MEMBER LOCKHART: So, Glenn, when these things go up on the website and they're made public, I'm presuming or am hoping that there's some kind of measure there as to how many times they're being viewed or downloaded. Because that would give us a measure of how useful, other than the internal up to the administrator, how useful they actually are.

Because everyone's spending a lot of time on these and if they're not ever downloaded or they're not ever viewed once they're on the website, I think that's a bit of a problem for us. Right?

MEMBER MAUNE: Do you track the hit rate on things like that?

GB: So, I don't track because they're from the Coast Survey's HSRP's site. So, we certainly have our communications division reports on the NOS website and how many hits it gets, so I assume at a program level they can do the same. Admiral, do you know?

RADM SMITH: Yes, I think we have the capability of doing that as part of a larger framework where we're usually counting hit rates in millions for chart downloads and stuff.

I don't think we usually pay as much attention to, you know, single documents and web pages. Do you know how that works?

MS. MERSFELDER-LEWIS: We could check that, but you would have to first point people to that website so that they would actually know that they're there.

So, it's important that I would say to you, think about how you want to distribute that. You could point them to the website. I could give you the hard copies. They're on the web, you know, however you want to do it.

But, no, I don't think that many people are wandering over. So, I'm sorry about that. But, just realistically speaking, we've have to make -- we need to gear up to think about how we want to use that.

MEMBER MAUNE: Okay. And, Joyce, you are putting some final touches on your paper, is that correct?

VICE CHAIR MILLER: I was going to discuss what we should do with you maybe briefly --

MEMBER MAUNE: Okay.

VICE CHAIR MILLER: -- before we adjourn.

MEMBER MAUNE: Okay, fine, thank you.

VICE CHAIR MILLER: Yes.

MR. ASLASKEN: I have one comment on the papers.

Of course, at NGS, we have lots of geodesy translation issues, as one might imagine. So, and, I don't know if we have seen or want to see, but we spend a lot of time on these translating this very issue into very straightforward terms that are two minutes or less.

So, I would point you there in the transcripts, maybe there's some wording there you can use to maybe simplify not only the datums but also maybe reference that in the paper because, you know, what we, you know, going through to -- you know, when we have gone to The Hill trying to explain geodesy and why that's important is very, very difficult to folks who are typically history majors and attorneys. Right?

So, the library of videos, I'll forward that around to the panel, I think you ought to look at those and reference them. And, they gave us transcripts there that go through the entire flow. But, there's -- and, I don't know if CO-OPS and Coast Survey have similar references there, but that -- the visual has been a better way to sell our message.

VICE CHAIR MILLER: Okay, yes?

MR. ARMSTRONG: So, following up on the sort of getting the word out and what Glenn says, I suspect -- I know that I get, you know, score of newsletters every day, maritime, eco, boating.

I would think that one thing we certainly would want to do is when the papers are ready and we post them on the website, then put out a little communications note to all of those kind of daily summaries announcing that the HSRP results and position papers for the panel have been posted and the link. I think that would be one way to --

GB: Well, like the Brian's Maritime?

MR. ARMSTRONG: Yes, Brian's Maritime and EnergyWire or EcoWire or --

GB: And, so, I don't think, you know, that in terms of the administration, in my experience, your job is to advise the Undersecretary once those come in. NOAA's not going to do that outreach, I don't think.

You've got your papers in to the Undersecretary, we're kind of done advertising them because we've got the panel's recommendations there. I don't think we're going to be doing a press release and that kind of stuff. We haven't in the past.

And, I just think internally, there's a little tension there. That you're job -- our job on the panel is to get your recommendations to the Undersecretary.

What happens with it after that, I don't know that NOAA's going to be inclined to do a lot of outreach.

VICE CHAIR MILLER: So, maybe we can send to --

GB: The Science Advisory Committee, and NOAA does not put out, you know, we put out the FYI notice at your meeting, but NOAA does not follow up with releases about what the advisory committees have done, that I've seen and I review every press article we put out and approve it.

And, there's a lot of advisory committees at NOAA. And, I just haven't seen, even the Science Advisory Board, which is the biggest giants in the -- you know, I don't see them putting out a lot press.

So, I don't think you're going to see that push coming from inside. I just don't think that's going to happen.

MEMBER BRIGHAM: But, these are technical kind of informational sheets. So, why are we doing them, I guess is the answer? Just to advise the administrator to read a very basic thing that she would, in fact, know already?

No, they're for outreach. So, how do we -- I've already sent out hundreds of people because of this arctic especially. I never identify myself as HSRP. And, of course, they can read the thing and see that I'm on the committee.

But, it's just, I send them all over as an arctic guy, so to speak. And, it's very helpful informational sheet to the research community, to the Arctic Research Commission, to staffers.

I get feedback that these are great things. So, send them to also to the website. Take a look at a website what this --

So, I don't know, I'm part of their communication machine, but, in my academic specialty. I understand being careful not to identify myself as HSRP but I don't know how we'd use them other than that.

And, we're all experts, supposedly, you know, hydrographic services and that kind of thing. So, maybe in our communities like Ed and his commercial world, how would he use it?

I mean, I don't know. I'm still a little torn on what -- how we use them and how NOAA would use them. Still seems to be a bit of a question from my point of view anyway.

VICE CHAIR MILLER: Well, Dave and I are co-chairs of the Planning and Engagement Committee. Perhaps Planning and Engagement can come up with a strategy on that. I don't know, but, we need to think about it and --

MS. MERSFELDER-LEWIS: I have a very brief comment. The Admiral -- the past Admiral did use some of the issue papers. He actually took one of your letters and an issue paper to The Hill and said, oh, by the way, here is to Murkowski's staff an arctic charting and said look at the recommendations that we have had.

So, he -- there are being used, you know, that's a very, very specific and useful tool to be -- for some leaders to be able to, you know, occasionally use, even if the administration may not love that we did that. But, they -- you were able to -- it was a very helpful to have that in hand.

And, I think for some of the other ones as well, it will be the same kind of thing.

VICE CHAIR MILLER: Okay, so at our next Planning and Engagement meeting, we'll continue this discussion, I think.

Actually, I'm sorry, Kim, I wondered on the PORTS paper if there needs to be a partner's section or would it include the entire world?

MEMBER HALL: Listing who the partners are?

VICE CHAIR MILLER: Yes.

MEMBER HALL: I mean I think we did a -- we tried to put at least all the end users I think but that's a different focus.

And, again, this goes to the right now, we've got partners and how that we're actually looking to actually shift a little bit of a still partnerships but not with the funding.

So, I think it's a smart idea except, for now, the new objective of that paper about the funding.

MEMBER KELLY: And, the partners would be too broad and diverse because we'd have to include all the people that have been wrangled into paying for some of this.

VICE CHAIR MILLER: Yes, okay.

MEMBER KELLY: And, it'd be, you know, and it's a different one in each place. So, if for 28 ports locations, you'd have a roster of some 28 partners plus the users, plus -- it'd be too big, which is the good news.

PORTS is a tremendous product that's very well received. It contributes on a daily basis to the health and well-being of the American economy. It protects lives and property.

And, I think the paper points to the key issue, is it's vulnerable to this very, you know, unstructured and unreliable funding system that can and has turned it dark in several locations.

VICE CHAIR MILLER: Okay. All right, it was just a thought.

Let's -- are there -- is there any more discussion on any other topic except the recommendation letter?

MEMBER SHINGLEDECKER: I have one more thing on the datums paper, I almost hate to go there.

It wasn't until we went around and said our thoughts and Gary mentioned something about the outreach that is needed to educate end users about the changes in the datums.

I didn't take that as a need, I didn't get that when I read the paper. I might have missed it, but I'm worried if that really is a dire need, do we need to communicate that?

Because, I've got a lot of rec boater end uses and I -- now I'm going, oh, what do I need to tell them? What will exactly change for that end user?

And, I'm -- if I'm not aware of it, I'm worried that something might be getting missed.

MEMBER THOMPSON: So, that's one of the recommendations in the paper is to work with groups to educate them.

MR. ASLASKEN: Correct. And, again, a big focus, the focus of the geo special summit, right? So, engaging at all user levels and doing that now. How we do that, again, is a lot like for this video that I just sent you all. It's one of the ways we're trying to do that.

Because, in layman's terms, as much as you can, you know, I have to agree with Gary, some of the stuff, you just can't not say, you know, this is only way to say it.

But, that those videos are part of it but the larger community and educating, that's a message that I think we ought to reiterate back to NGS as well. That, maybe going to nontraditional type outlets, conferences, education, you know, that type of thing might be good recommendations for you guys to push on as well.

MEMBER SHINGLEDECKER: I don't know if there's a way to play that up in the paper a little bit more. Because, a lot of those end users don't even know they're using datums. They don't know what a datum is.

So, it is a really technical paper and if you get to that fourth paragraph and you're like, whoa, I don't know what an ellipsoid is or I, you know, if you don't get down to the recommendation, if that is a really key takeaway, it's in there, I didn't really feel its weight until Gary said it.

So, we might want to -- I'm not saying rewrite the whole paper.

MEMBER HALL: But, the transcript that Mike just sent us is almost exactly what our paper should read like if we want something and I am not anti doing it, but if we read -- if you read through quickly, he sent the video as well as the kind of transcript from it. And, I think that's probably more of what some of us are looking for versus what's there.

I just, again, it's what is the objective of what we're trying to do? Is it to inform technical people, hey, you really have to get this, you need to figure out how to translate? Or, are we supposed to translate for them up to the Undersecretary?

So, there's a kind of an issue here with what is our objective and what are we trying to hope to accomplish?

I think recommending the education is right, we're not the ones who's supposed to figure out what that education looks like.

So, I just, again, it becomes a little bit complicated on exactly what our end goal is.

MEMBER THOMPSON: So, let's do this, let me write a second paper, because I think the one that we've written is very important for NOAA. So, let me do a second paper and plain -- a one-pager. So, let me give a shot at that.

MEMBER HALL: And, like I said, the stuff that Mike just sent us I think is there's some fodder there, obviously. And, I'm happy to help.

MEMBER THOMPSON: Okay.

GB: I think, to some, the paper's already achieved its purpose. The message is being received that the program that's doing these datum changes needs to have a very plain English outreach plan and strategy to do it.

And, some of the materials might, they're already aware of that, but we've gotten your reiterating it. But, the outreach campaign to educate the public is going to come through the program.

We've got that message from you folks loud and clear. To some extent, you've already won on this paper because it's really how to make the public aware.

I've already got it noted for something, how do I make the new Secretary aware this is coming and it's important, it's part of the transitioning. It's already on my list from being here this week.

So, I think we've got the message that we need to have a plain English -- we've got some great people in our plain English communications folks who do work similar to the kind of work Kim's done here this week.

So, I think we've got it and I think the programs are fully aware of it, Mike, and is already keenly aware.

Now, the needs that go beyond the technical experts that need to know, I mean, what's that, you know, Al Roker last week went into the new Gozar satellite, it was on the Today Show. In two minutes, all of a sudden, everyone understood how the satellite was really important.

We need a similar kind of a mechanism for this and we need to work on that. I think I got it, I heard it loud and clear from you folks.

VICE CHAIR MILLER: Okay. All right. Okay.

Yes, and I have just -- I just glanced at Mike's thing and it is plain English. It's very good.

Okay, let's go to the letter in the hopes that we can get out of here in an hour and 15 minutes or so.

I had Lynne put this up but we've each got a copy of it.

Let me tell you the -- or let me discuss the discussions we've had about what this letter should be.

The general feeling of the people that I have talked to or had a chance to talk to is that we heard a lot of valuable information that we, in the Great Lakes area and gained an understanding of its complexities and its uniqueness, I guess I'd say.

And, but, we didn't -- and, we heard four general areas of concern, communications -- concern or congratulations, communications, partnerships.

The title or the heading says PORTS. What I mean is the whole water level issue and multiple use of sensors which we've -- a lot of which we've got in the PORTS paper already.

But, we heard yet again how important that is.

And, then, finally, the last one is mapping needs.

And, we have three strong papers that, in themselves, are recommendations. So, I haven't been able to sort of isolate one or two single driving issues that we heard. We heard a lot of different issues.

And, so, in trying to write the intro to the letter, basically, based upon less or Galveston's letter, I thought perhaps we would introduce --

Well, first of all, the thank yous and the, not boilerplate, but the sort of the introduction up front this was a meeting in the Great Lakes and we saw these, you know, how unique they are.

And, then, basically present our papers up front because we've put so much work into them and they do stand as recommendations on their own. And, so, use those as sort of, I don't know whether I'd call them major recommendations, but just use those.

Because, I think one of the most important things is the work we're doing when we're not sitting here, the papers and so forth.

And, then, in each of these four topics, discuss what we heard. And, a lot of our -- actually, it was Glenn that said it, we don't have any big R recommendations from the Great Lakes panel meeting.

We've got a bunch of little R recommendations, most of which we need to pass on to Coast Survey as, you know, we'd like to hear more about this. You know, this issue was brought up, the stakeholders said, whatever they said.

And, then, and maybe two to four bullets under each one of major topics that -- or -- and to pass along the request for more information.

We also heard a couple, you know, we heard a couple things that really aren't OCS, but we might pass along to other parts of the agency, the environmental sensitivity maps being one example of that.

And, so, I think in the order in the -- in terms of efficiency what would be best is, there's 12 of us here on the panel. There's four topics. We spend say, until 9:30 crafting a paragraph on each of those subjects and then we'll pass that back and review those paragraphs and I'll take the action to put them into a letter form.

Does that work for everyone?

And, I think there's some natural -- so, look at the communications, partnerships, the PORT, this is not specifically PORTS, it's the great need for the water level sensors and the NOAA sensors here in the Great Lakes are and then mapping needs.

And, there's some obvious ones Andy and I will probably do mapping. But, and anybody else.

So, communications, three people to work on communications. Anne?

MEMBER MCINTYRE: We'll be the three.

VICE CHAIR MILLER: You'll be the three?

Partnerships? Susan? You three?

Okay. And, that leaves, let's see, you two -- oh, we've -- hold it, maybe it's only two people per -- let's see, PORTS, well, we've got mapping, the water level sensors, you guys want to work on that, the two of you? Or, no, let's see, communications, partnerships, PORTS and water level sensors.

You two, would you? Yes. And, then the three us can work on mapping.

MR. ARMSTRONG: Okay, that would be current sensors, I mean, the current meters as well as the water level?

VICE CHAIR MILLER: Yes, current meters, water level, the, yes, what we heard.

And, so, I --

MEMBER HALL: I think we summarized --

VICE CHAIR MILLER: Pardon?

MEMBER HALL: We feel actually we should probably take the PORTS stuff on since we've been doing that and then trade with communications.

VICE CHAIR MILLER: Okay.

MEMBER HALL: Potentially.

MEMBER PERKINS: Thank you.

VICE CHAIR MILLER: Okay. You're doing communications.

Okay, and, you might think about some of the -- I was writing things down and you might think of -- we heard from each person what they thought was important. You might just repeat that and see, you know, see what kind of bubbles to the top as the most important item in any one of those.

MEMBER MAUNE: Did you say you want a paragraph from each of us or an opening sentence with several bullets behind it?

VICE CHAIR MILLER: That's -- yes, a third of a page, I guess I'd say.

MEMBER MAUNE: You'd like them for a third of a page however we format it?

VICE CHAIR MILLER: Yes, I think it would be good if they were formatted the same, you know, if -- bullets or not bullets?

I think bullets because in some of the items are kind of diverse under a single category and they might not flow well together.

Okay, guys, what do you think? I can do it here. So, what's our bottom line?

(Whereupon, the above-entitled matter went off the record at 8:56 a.m. and resumed at 9:42 a.m.)

VICE CHAIR MILLER: Okay, once again, was we received inputs stressing the value of the PORTS system to safe navigation and commerce. Great Lakes data reported a regional need for additional water level and current sensors.

However, the establishment and maintenance of regional PORTS system are constrained by the comment cautionary and funding mechanism.

A need was expressed for VHF voice broadcast of meteorological and environmental data information in offshore areas where internet coverage is absent.

Sounds pretty good to me, everybody okay with that?

Partnerships, can you slow down?

(Off mic comments.)

VICE CHAIR MILLER: And, up at the top level, too?

And, we'll put the, what is it, a copyright trademark symbol on it? Yes, okay.

Okay, we witnessed the strong and unique nature of partnerships driving management of the Great Lakes system.

The involvement of groups like the Great Lakes Commission highlight the international collaboration present in the region.

We were pleased to hear that the panel's recommendation from the HSRP meeting in -- for a U.S. Army Corps and NOAA agreement has been finalized.

With a large number of stakeholders and federal partners in the region at times, there can be a concern about overlapping missions and redundancies.

Instead, our stakeholder panels highlighted potential gaps -- well, instead doesn't make sense to me. I would say in addition our stakeholder panel highlighted potential gaps in mission and scope.

MEMBER SHINGLEDECKER: What we're trying to say there was, often times when you have multiple federal partners, there's a concern about redundancies.

Actually, we found the opposite.

VICE CHAIR MILLER: Okay.

MEMBER SHINGLEDECKER: So, that's what the instead was meaning to say. At times, there's concern for redundancies and overlap --

VICE CHAIR MILLER: Okay.

MEMBER SHINGLEDECKER: -- and that's not what we found here.

VICE CHAIR MILLER: Okay.

MEMBER HALL: I mean, I would almost say that, though, that we expected that with a large number of stakeholders and federal in the region there could be concern about overlap in mission, period.

Instead, our stakeholder panel highlighted potential gaps in mission and scope.

VICE CHAIR MILLER: Okay. So, at the first, with -- we say, instead we learned that or we expected that.

MEMBER HALL: Yes, yes. Well, we expect it with the -- or, yes, we expected with the large number of stakeholders.

VICE CHAIR MILLER: That with -- yes.

MEMBER LOCKHART: I don't know if I'm comfortable with saying we expected there to be a lot of overlap, just because there's partnerships.

MEMBER SHINGLEDECKER: I just think there's a tendency.

MEMBER MAUNE: There's a potential for an overlap.

MEMBER LOCKHART: Yes, there's a potential.

VICE CHAIR MILLER: Okay.

MEMBER LOCKHART: But, I think expected it, I didn't come here expecting that.

DR. MAYER: So, you're saying, just say with the large number of stakeholders and federal partners in the region, there is a potential for overlap in mission and scope.

VICE CHAIR MILLER: Okay.

DR. MAYER: However, we found.

VICE CHAIR MILLER: Yes.

There is a potential for. Yes, I'd use a -- I'd do either a period or a semicolon there. Yes.

However, our stakeholder panels highlight potential gaps in mission.

Well, instead's okay there, isn't it? Yes, let's leave instead.

(Off mic comments.)

VICE CHAIR MILLER: I would just say gaps. Yes, yes, so take out the second potential?

Okay, next one?

MEMBER HALL: I don't remember exactly why we made that recommendation. It was a need at this, but that's not good.

VICE CHAIR MILLER: Yes, okay, all right, I'll get to it. Don't worry about it, I'll just review notes. It was a while ago.

There is -- did you guys say anything about the Nav -- not having a full-time Nav Manager? The same one? Oh, okay.

(Off mic comments.)

MEMBER HALL: So, I don't know, is that redundant to what we had in the -- our PORTS one? Because it really relates to that.

MEMBER PERKINS: You know, I noticed that and I don't know how we -- I don't know, do we move it into just into communication? I think because we're talking about communicating that data to users it should be in the communication section. It's not just PORTS. It's not just PORTS data, though.

VICE CHAIR MILLER: So --

MEMBER PERKINS: So, I think you'd take it out of PORTS and you put in communication.

VICE CHAIR MILLER: Okay. All right. Can you just put a note up or can you move that? We'll take care of that.

So, the -- let's see, the director of the CMTS, that does not need a comma. Recommended synchronization of U.S. Army Corps and NOAA data inputs and out, this is one more challenge -- of the more -- this is one of the more challenging issues. So, we need an of, yes. Okay.

MEMBER HALL: I just have a question about that. Does this, in some way then, connote that the panel recognized CMTS waterway harmonization process as something that's worthwhile? And, this kind of goes for anything that we put in here, that the value of that.

I don't want to say it is or it isn't, but --

VICE CHAIR MILLER: No, I don't think that says anything that other than they reported this as one of their challenging issues, yes.

MEMBER HALL: Then, I think I would put it that way. Take out that recommended piece there and just say, noted or something, that synchronization is one of the bigger challenges.

VICE CHAIR MILLER: Okay. So --

MEMBER HALL: Because it almost looks like then we're backing up a recommendation by somebody else.

VICE CHAIR MILLER: Noted that.

MEMBER PERKINS: How about testified?

VICE CHAIR MILLER: Testified? Okay. How about reported?

MEMBER HALL: All right, testimony issues are very specific connotation.

VICE CHAIR MILLER: And, then, I would say the synchronization -- and, then, I would say which is one of the more challenging issues facing the CMTS waterway harmonization process.

So, instead of this is one of the, yes. Yes, delete the --

I would say which comma which is one of the more challenging issues. Change the this to which.

Okay. Yes, comma. Good.

Okay, Great Lakes Mapping Issues, a number of stakeholders and members discussed issues related to mapping. Mapping is needed for a variety of reasons, including navigation, ability to monitor lake levels and ecosystem characterization and monitoring.

NOAA should review Great Lakes mapping needs and incorporate these into its overall mapping priorities.

The HSRP learned about potential issues regarding the detection and charting of isolated dangers to navigation in federally maintained channels and anchorages.

We would like to learn more about the responsibilities of both the Army Corps of Engineers and NOAA with respect to detection and charting of such dangers.

Lake Huron has had changes in lake water levels. These changes cannot be explained without accurate, up to date mapping information in the lakes and connecting channels.

A representative from the Great Lakes Restoration Initiative expressed the need for both bathymetry and lake bottom characterization data. The uses include -- can you go down a little -- down more. Keep going.

Habitat classification, targeting specific depths to capture a range of depositional issues, development of Environmental Sensitivity Index Maps and the need for up to date depth data in order to develop statistics.

That's long, I'll work on it. I'll probably take some words out.

The representative also requested that the data be made available to the public quickly in various products and formats and be available on mobile devices.

The panel was pleased to hear that the mapping data from a commercial cable survey in another region is being given to NOAA and will be made publically available.

MR. ASLASKEN: Joyce, one point in that is this is an opportunity, especially in the ESI, that the foundation data, that this FACA oversees is critical to that data that it exists, it's just that the program that is responsible for that has not used that information in order to do that.

But, in a lot of the cases, what I heard, and I think I made the point earlier that, the foundation data that the three offices provide is a lot of what's used and what's needed in the Great Lakes.

And, I don't know if they were in the letter that you put, but I think that was a good takeaway that I had.

VICE CHAIR MILLER: You mean, in terms of mapping data or --

MR. ASLASKEN: Yes, the foundation data is there, whether it's the water levels, the charting, hydrography or the shoreline, the geodesy. The people appealed and --

VICE CHAIR MILLER: My impression was that, is it not fully mapped?

MR. ASLASKEN: Oh, the Great Lakes from the shoreline perspective has been updated, yes.

VICE CHAIR MILLER: Oh, the shoreline?

MR. ASLASKEN: But, I mean, a lot of the different applications for those data, not just charts. And, that the ESI map is one of those examples where they the NOAA shoreline and they classify it for that.

VICE CHAIR MILLER: So --

MR. ASLASKEN: They don't remap the shoreline completely. They'll take out a mean hour shoreline, in this case, classify it as a shoreline type for their ESI needs and then they move on.

MR. EDWING: You're saying ESI maps should not take an advantage of the --

MR. ASLASKEN: Well, I mean, I'm just using it as an example. There's lots of, you know, I was hearing a lot of what they wanted from a mapping standpoint is being supported by the foundation data of the three offices.

I don't know if that's, you know, a point we want to make or not, or do you want to make?

MR. ARMSTRONG: So I think, you know --

VICE CHAIR MILLER: Go ahead, Andy.

MR. ARMSTRONG: Yes, I think we heard that the bathymetry is not there and not adequate.

MR. ASLASKEN:: So, we have Army Corps LIDAR data that's working through the system of the nearshore, but that's just one component of recent data that have been collected in the last two years.

MR. ARMSTRONG: That's right. But, as I recall, the need was down to 30 meters. I'm sure there's no Army Corps or LIDAR data there.

So, yes, I -- we do have the JALBTCX LIDAR, right? We have that and we have the shoreline. What we're missing is outside the JALBTCX in the areas that are not covered by the JALBTCX LIDAR, we need the bathymetry.

VICE CHAIR MILLER: Should we say in the first sentence of the third bullet should we say, and by -- especially in deeper waters or in --

MR. ARMSTRONG: Well, I guess if we want to get into that detail we can say we're in the nearshore areas where the LIDAR doesn't -- where we don't have LIDAR coverage of the bathymetry or we don't have LIDAR bathymetry available.

MEMBER HALL: I don't think we -- I think it's broad enough at this point, I think we need to -- because we've gone not that deep into other things.

MR. ARMSTRONG: Yes, I agree. I --

MEMBER HALL: I still think it -- I think it doesn't say that you need new data, it doesn't say that you can't use the old data, it just says they need it to be used for that.

So, I just a little remiss to go too deep.

MR. ARMSTRONG: So, if the old data were okay, they'd be fine. So, right? There wouldn't be an issue if the old data were fine.

VICE CHAIR MILLER: So, is there a complete high resolution map of the lakes?

MEMBER HALL: I just have one more question. I know we were talking about that and as we get that up there, with regard to your comments about the responsibilities between -- is that the right characterization? And, maybe, Admiral, you can help us with that when it comes.

I think we know who's responsible for detection and how you chart that of the dangers. It's how you get it done.

MR. ARMSTRONG: I don't think so.

RADM SMITH: No, I think it's not clear who's responsible.

MEMBER HALL: Okay. I just wanted to make sure. Because there seemed to be a problem beyond that, too. Not who is responsible and then how do we actually get the resources to do it if you are?

RADM SMITH: And, that's the next step. And, the other issue is how do we show the fact that that's not getting done on the charts? How do we describe the quality of the data in the channels if it is not, in fact, object detection sort of A-1 data?

MEMBER HALL: Yes, I just wasn't sure if there was some other characterization that needed to happen in that paragraph or if that, if this is a good start and then as we learn more about that, we can tell them that there's not a --

RADM SMITH: I thought it was fine. The use of the word danger in navigation may be too much of a term of art for a general audience, talk about obstructions or something sort of physical sounding because danger in navigation is a little bit of a --

MEMBER HALL: And, also, the idiots on the water?

RADM SMITH: -- process type of description.

MR. KRUMWIEDE: So, Brandon Krumwiede, NOAA Office for Coastal Management, Great Lakes Geospatial Coordinator.

I sent a couple images to Lynne to share here today. So, for folks that may not be aware, our office has actually created a tool called the NOAA Lake Level Viewer. It creates a 3-meter spatial digital elevation, topobathy along the coastal margins using, in this iteration, it is purely topobathy LIDAR data that we're using with this.

And, Lynne, if you can go to the next one?

We are actually in the current process of updating that and releasing it with new data.

And, what this is actually showing is a combination of topobathy LIDAR, bathy LIDAR, U.S. Army Corps of Engineers strategy survey, the one piece that's missing currently from this is the National Parks Service multibeam data that they've collected around those areas.

And, again, we're pulling those all together to create a seamless digital elevation model of the coastal nearshore environment, again, at 3-meters spatial resolution just based on the data.

Some of the challenges, and, again, this is currently undergoing a QA/QC process that we're working on, is some of those things that were mentioned. You know, detection of different objects and talking with Rear Admiral Smith, you know, depending on who the user is, the resolution may or may not be at the quality needed.

But, based on whether it's fisheries management or even talking with our sanctuary folks in regards to archeological site detection and artifacts recovery there.

So, just wanted people to be aware hoping to share this with folks and I meant to send it to Jackie before she presented, but we are currently working on some of this.

And, again, the limitation, though, is, I will point out a couple areas here.

Sandusky Bay down here, you'll notice we don't have good coverage there, reasons being high turbidity, shell water environments.

And, those are the type of issue areas, especially from the environmental side of things when we look at wetlands and restoration efforts, it's nice to have the bathy, it's also one of the most challenging areas to get bathy due to costs and vessel operations.

So, thank you. If there's questions --

VICE CHAIR MILLER: So, is all -- is that all the multibeam data that exists or not?

MR. KRUMWIEDE: There is not -- the only multibeam data that we're going to be including current will be some of the 2004. There is some multibeam data up between the islands. We're actually using that as part of a QA/QC process with the new -- I'm actually --

The reason I was not at the baseball game last night was I was actually working on the topobathy QA/QC for that area. So, yes, Larry?

DR. MAYER: Well, I pointed out to Brandon, there is Canadian multibeam data in not a good part, the western part in Rochester Basin in Lake Ontario and we'll make that available to him.

I just sent a message to the Canadian CHS to see what other multibeam data might be existent since then, since that was collected.

That multibeam data was submitted to NGDC, but --

MR. KRUMWIEDE: Where it's at in the shuffle.

DR. MAYER: And it appears on the NGDC compilation maps but there's clearly communication issues.

MR. ASLASKEN: Ed Saade also mentioned it. Fugro did a bunch of work, LIDAR work on the community side that they're going to provide that data, make that data available as well.

MR. KRUMWIEDE: So, Ed, I talked with Ed about that. Ed Saade is actually this -- right stretch right through here, that was some of the data he collected for us through actually Great Lakes Restoration Initiative funding through Coastal Services Center at the time, to get that completed in 2010/2011.

MR. ASLASKEN: This is data they collected for Canadian hydrographic services.

MR. KRUMWIEDE: On the Canadian side?

And, again, for this tool, we're primarily focused on the U.S. side of things at this time. The Canadians had its own interests and seeing that tool expanded on the other side. Of course, the big thing there for us is you've got to have some type of funding mechanism to work between Canada and the U.S. on that.

DR. MAYER: There is on, I think it's Tom Johnson at the University of Minnesota has a multibeam on his vessel and you get access to those data?

MR. KRUMWIEDE: So, part of the reason for formulating the Great Lakes Bottom Mapping Work Group was to bring all those different agencies together. There's quite a few academia folks.

So, there is a Large Lakes Observatory up in University of Minnesota Duluth, Michigan Tech Research Institute and Michigan Tech University have also got multibeam capabilities.

In Northwest Michigan College, I mentioned this to a couple of folks, Hans Van Sumeren received several millions of dollars from the governor to actually stand up a marine technology program there.

And, they'd have -- what's amazing is they have UAVs, ASVs, ROVs to the point where students are actually learning how to fix hydraulics on ROVs right there at their college.

So, that is expanding across the Great Lakes as far as marine technology.

I know Guy Meadows up at MTU, he would love to have use their university and educational system as a test bed for RA conditions. Because we have ice here on the Great Lakes as well and how do you survey, say, under ice and things like that?

So, I just wanted to share these graphics to let people know that we are working on this as best as we can.

VICE CHAIR MILLER: Okay, let's go back to the mapping or the papers.

So, do we want to qualify our statement, Andy?

MR. ARMSTRONG: I don't think so.

VICE CHAIR MILLER: Maybe I'll put in back of the first sentence of the third bullet, particularly in deeper areas or something. No?

MEMBER LOCKHART: I don't know, Joyce. I mean, you look at that map and there's a lot of black space on it. I mean, I don't think it needs qualification.

VICE CHAIR MILLER: All right, we'll leave it, we'll leave it.

And, so, I mean, the gist of all of this is that, you know, just hopefully things that will help Admiral Smith push forward Coast Survey's mission basically.

I will take all of these hopefully within the next week, put them into a letter, probably Bill and Dave and I will or, I'm sorry, Dave and Bill and I will shove it around once or twice and then send it out to the entire panel for comment.

If you recall, our goal is to have the draft out within two weeks and the final letter within one month. So, that will be our -- we -- I don't know if everyone's aware, particularly the new members, we wrote up a standard operating procedure for what happens so that we could try to keep to some sort of schedule in this rather than taking months to get a letter out.

So, at the next scheduled phone con for the entire panel, we can discuss this. Do you know when that is, Lynne? Early October, okay.

So, please, please, please, I know you're all very busy people, but, you've seen most of this. If you have any comments, get them back to me quickly or to us quickly.

Is there any other comment or business from the panel that we need to deal with?

RADM SMITH: So, we had a couple of offline discussions about presentations during the monthly meetings. And, basically, wanted to ask the panel to guide us on what you would like to hear from us on and, if any, so that we can use that time productively.

We want to be responsive to whatever it is that you think would be useful for between meetings.

I've already taken a note and started arranging it for presentations on unmanned systems and the hydroprocessing for next -- for the next in person meeting.

But, if there are in between presentations that would be helpful. You don't need to answer now, but we will essentially stand by for your guidance on that.

VICE CHAIR MILLER: Yes, okay, one comment I have to make is, since I'm six hours behind you guys, the links to, and I very much appreciate, I think both Lawson and I do, you know, that most of our meetings are in the afternoon.

Some of the recommended webinars are either in the -- are way in the morning and, you know, I'm not going to get up at 2:00 in the morning, I'm sorry, to hear a webinar.

And, there was one or two that I have actually done it because I was interested. But, so, if we do have a topic and there's an associated webinar, you know, give us a lot of forward notice or give me a lot of forward notice if I have to plan on that because, a lot of times, you know, it's just not possible.

So, I mean, I appreciate the webinar links and the notices.

I don't particularly have anything. The only request I would make particularly for those with extremely busy schedules is that we have the business part first and the talk after and that the talks be say no longer than a half an hour including questions.

It just, you know, there's a lot of people with a lot of things to do.

MEMBER HALL: And, it's really hard in those kinds of formats, especially if somebody doesn't have slides and slides don't always work and whatnot, to sit for 45 minutes and be on receive. It needs to be much more interactive they're going to do it.

This probably means more, potentially more preparation on our part which the notice piece is there, but, again, you know, I think all of us get answering emails and other things because it's just so hard and the telephone formats are really keep your attention.

RADM SMITH: So, should we just -- it sort of sounds likes that's not a very useful way of doing things and maybe we should do less of it, too. Is that --

MEMBER KELLY: Admiral, no, I don't think it's not useful, I think that just the reality is that the panel has to frontload the administrative part because if, for some reason, individual members may not be able to sit through the whole thing, it's more important perhaps to deal with the administrative piece and then maybe take a pass and just read whatever's been presented instead of sitting through the presentation.

And, I think that's probably the key thing that we're saying here.

I personally, a lot of this stuff, you know, I find is very interesting. Some of it I get 60 to 80 percent and some of the tech stuff goes over. But, I find it's very valuable to me. I think the presentations are valuable.

MEMBER LOCKHART: Yes, I mean, I think for the working group I've been participating in, it's been really useful. But, I think, yes, there's a lot of stuff to discuss and sometimes those meetings can run kind of long.

So, I think the key maybe isn't so much having admin first or having this second, it's more just sticking to the schedule.

So, if you know the admin part's going to be at 1:30, then dial in at 1:30 if that's the only part you want to listen to. If you know the presentation's going to be from 1:00 to 1:30 and you don't want to hear it, don't hear it.

But, which comes first and second, I'm not so concerned about, I think it's more just knowing what part you want to listen to and if it's going to be on schedule, then you can dial in when it's appropriate.

And, the other thing I would say is, you know, we keep trying to use, you know, technologies to do these webinars, I think it's great. But, I think a lot of times, we seem to be defaulting to a different conference line.

And, what that does mean for somebody like Joyce is, if we were using the technology properly and recording those webinars, she could go back and watch this presentation at a time when she is awake.

And, so, I'm sure there's some technical reason why that's not working, but everybody else in the world is using it, so having a hard time understanding what the problem is.

MS. MERSFELDER-LEWIS: Lawson Brigham refuses to call in. So, we've given him his own line.

So, we never start a meeting that Joyce isn't invited to before 3:00.

VICE CHAIR MILLER: No, no, I'm not talking about your meetings, I'm talking about other webinars that we might join.

MS. MERSFELDER-LEWIS: Oh, I see.

VICE CHAIR MILLER: Yes, you know, there are some of them that are either at noon or in the morning.

MS. MERSFELDER-LEWIS: Well, and NGS and other people have their own things, we just pass it along, I can't influence their timing.

VICE CHAIR MILLER: No.

MS. MERSFELDER-LEWIS: And, we also always have the presentations in advance. So, but, I love the idea of doing the business meetings first, but I just wonder, will anybody stick around for the speaker?

VICE CHAIR MILLER: Okay. And, this -- okay, Lynne has told me that with some missing responses, the best dates for the meeting in Seattle appear to be May 1st to 5th or February 27th to March 3rd.

That's good with me. Through March 3rd, that's a --

Okay, so hold May 1st to 5th on your calendar. That looks like the best dates. That's great, Seattle's really beautiful in May.

All right, we are at 10:15. At this time, I'd like to invite any comments from either the audience here or elsewhere. Are there any folks that would like to make a comment?

MR. CONNER: Yes, Dave Conner, National Geodetic Survey.

I saw a note that -- mentioning concern over Lake Huron water levels and just would like to caution that Lake Huron and Lake Michigan are really all one lake and the Lake Huron was given as an example with concerns over the water levels.

But, really, I think it applies to all the Great Lakes. So, yes, we've had some increased concern on Lake Huron for a couple reasons, but it's not really separate from the same concerns on the other lakes.

Thank you.

VICE CHAIR MILLER: Okay. So, they have all had changes in water levels unexplained? Yes, okay.

MR. EDWING: I think, as I recall, a lot of discussion was to the lack of regular bathymetry along the interconnecting waterways.

VICE CHAIR MILLER: Yes, and, we said that accurate channels.

MR. EDWING: Yes, right, okay.

VICE CHAIR MILLER: Okay. All right, that's noted and I will make that change. Obviously, there is a fair amount of editing to do.

Lynne, do we have any comments on the web? Okay, no comments.

By the way, Glenn left this. These are some copies of the legislative -- the various legislative acts he talked to us about the first lunch and there are extra copies of this if anyone is interested in having a copy of the various documents from the House and Senate and his -- so, I'll leave these up here is anybody wants to pick them up.

That being said, I think we can say thank you to our new DFO. And, for an excellent meeting and to Lynne and all of the NOAA staff that have helped out. I think it's been an excellent meeting.

Admiral, would you like to make any closing remarks?

RADM SMITH: I've been making remarks along the way, but, thank you all. This has been a very, certainly, I've shared your interest in everything we've learned about the Lakes and am newly inspired by the challenges up here, but also inspired by you and I thank you all for sort of joining us in the thinking about the direction we need to go and identifying gaps and opportunities.

So, thank you.

VICE CHAIR MILLER: Okay, and thank you for the -- for those in the audience for their participation. We learned -- I feel like I've learned a great amount.

So, I'd entertain a motion to adjourn the meeting.

MEMBER KELLY: So moved.

VICE CHAIR MILLER: Second?

MEMBER SHINGLEDECKER: Second.

VICE CHAIR MILLER: This meeting is adjourned.

(Whereupon, the above-entitled matter went off the record at 10:19 a.m.)