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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FRIDAY,

JUNE 9, 2017

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The Hydrographic Services Review Panel met via webinar at 1:00 p.m., Bill Hanson, Chair, presiding.

MEMBERS PRESENT:

BILL HANSON, Chair

DR. LARRY ATKINSON

KIM HALL

EDWARD J. KELLY

CAROL LOCKHART

DR. DAVID MAUNE

CAPTAIN SALVATORE RASSELLO

EDWARD J. SAADE

SUSAN SHINGLEDECKER

GARY THOMPSON

NON-VOTING MEMBERS:

ANDY ARMSTRONG, Co-Director, NOAA/University

of New Hampshire Joint Hydrographic

Center

JULIANA BLACKWELL, Director, National

Geodetic Survey, NOS

RICH EDWING, Director, Center for

Operational Oceanographic Products and

Services, NOS

STAFF PRESENT:

REAR ADMIRAL SHEP SMITH, HSRP Designated

Federal Official; Director, Office of

Coast Survey

TATIANA BOWIE, National Geodetic Survey

CAPTAIN RICK BRENNAN, Chief, Hydrographic

Surveys Division

COLBY HARMON, Marine Chart Division

LAURA REAR MCLAUGHLIN, Center for

Operational Oceanographic Products and

Services

RACHEL MEDLEY, Acting Deputy Hydrographer,

OCS

LYNNE MERSFELDER-LEWIS, HSRP Coordinator

ALSO PRESENT:

JOHN HAUSSENER

DAVID HERICKS

SHANA KINSEY-CARLSEN

JOSE MORALES

SOONG NOONIAN

NATHAN WARDWELL

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

1:09 p.m.

CHAIR HANSON: I just want to thank everybody for getting on the call here and putting up with the chairman's difficulty signing in. I do appreciate the Panel members' work since we met in Seattle. I also, again, appreciate the others -- the public calling in as well and welcome their participation.

So with that, Admiral Smith, I will turn it right over to you.

RADM SMITH: All right. Well, thank you all for joining us. We've got -- we called this meeting specifically to provide consensus comments to NOAA on the National Charting Plan, which we didn't quite get done at the last in-person meeting. And because we happen to have a fully constituted group here, we wanted to take advantage of that by adding a few other small things on the agenda, if we have the time. And that is to discuss the updates of HSRP work, to discuss the draft agenda for the September public meeting, and we will have an announcement of a congressional briefing as well.

So, Susan Shingledecker, who is here in person, was kind enough to lead the coalescing efforts on behalf of the Panel in response to the National Charting Plan.

So, Susan, I'd like to turn the floor over to you.

MEMBER SHINGLEDECKER: Sure. I notice that the phone mic is way over there and over there. Can people on the phone hear me okay?

Great. Oh, it's not green. Is that a bad sign?

All right. Thank you to Joyce for starting the process with the National Charting Plan comments and thanks to all the members that did weigh in. I've gotten comments up to a half an hour ago. So, there is a couple of changes to what was sent around but I hope that was useful.

Generally, I'd like to just say first that I'd like to applaud the efforts that went into drafting the plan. I think that this has really raised a lot of attention, certainly in the recreational boating community, but what was interesting to me was, from the recreational perspective, I kind of said okay. But then when I looked at all the diverse comments that came in from other Panel members and it really showed to me the richness of the Panel as a whole because there were so many things that all of the various Panel members raised as a comment that my community, they didn't even know about that part. And so I was kind of laughing when they were all excited about one particular thing. I was like oh, my gosh, there is so much more meat in here that you guys are missing and you are not even aware of how great this is going to be or what a big change this is.

So, it's been an exciting exercise for me. My thought was I have a couple comments from Joyce and she couldn't be here. I was just going to state those. And then my thought was to just kind of quickly -- not quickly -- takes as much time as you all want but walk through the different sections in the draft comments, just kind of quickly summarize those areas and see if there is any further discussion or clarification on each of those issue areas. Then, I will write down those comments, make any changes that are needed, and we will turn this back around to NOAA as fast as possible because I know you are awaiting that. Does that work for anyone or does anyone have any other different approach they would like to take?

(No response.)

MEMBER SHINGLEDECKER: Okay. So from Joyce, in her comments that I have here, she wanted to make sure that we make it clear that this is a charting plan only. I know there was some -- some of the comments that we had in our discussion in Seattle were there are so many other things that we know the three offices are taking on in terms of their future direction and we didn't see that reflected into the plan. And so perhaps something that we comment on that this is the charting plan only, it doesn't include everything that the three offices are focusing on.

And then Joyce also pointed out that there were several issues that were generally agreed upon in the first round of reviews being: metric, definitely sounding should be shown as much as possible, not removed in the channels, and steps to improve and clarify the ENCs and ECDIS displays are critical.

So she also mentioned that the documents should cross-reference other documents and mention the plan to investigate or disprove chart discrepancies using available resources. So, those were just kind of some summary comments from Joyce.

MS. MERSFELDER-LEWIS: Yes, I just want to do a sound check. Is everybody on the webinar able to hear Susan?

MEMBER HALL: We can hear her just fine.

MEMBER SHINGLEDECKER: Phew! I was nervous. It was quiet out there.

MEMBER KELLY: Yes, we hear her fine.

MS. MERSFELDER-LEWIS: Thanks guys.

MEMBER SHINGLEDECKER: So now we have the document pulled up on the screen and, hopefully, you can follow along with me. It is my hope that we can dispense with the proofreading edits; that those are all kind of just minor edits and don't need a whole lot of discussion, unless anyone has any burning desire to dive into proofreading.

And then we will go to Section 2, Sources of Data Used to Maintain Charts: New Chart Source Data.

The comments here, we talked about the document does not address the inclusion of other data sources except from the Army Corps of Engineers and that it should discuss other data sources and then lists a few them and goes on further to suggest that contractors be added as a source of hydrographic surveys.

Any questions or comments or revisions needed for that?

(No response.)

MEMBER SHINGLEDECKER: Okay, hearing none, and if I move on too fast, just speak up and we'll go back.

The New Editions of Paper Charts, 2.2, there was a suggestion that the algorithm for determining when to issue a new edition of a raster chart be explained or at least the logic outlined. I think this was more just the background understanding to help the public understand where we were versus where we're going.

Suggested including a short list of examples of routine chart updates because I agree a lot of people don't understand what triggers that.

An issue not mentioned in the document is the timely transmission of the Local Districts to UKHO for compiling the AIO cells. I will be honest, I don't understand what this means but it is very important to some people.

So, if anyone wants to expand on that further, it's quite possible I didn't capture it correctly.

RADM SMITH: Can I ask about that, a clarifying question? I'm wondering whether local districts they mean the local notices because I think the AIO --

MEMBER RASSELLO: I think I can.

MEMBER HALL: Just one moment. Lynn, just FYI, there are other people on the phone that are definitely being muted by your end, not their end. I was emailing Juliana and so she can hear us right now but she cannot speak. And she used the PIN and everything and not able to get through.

I just wanted to give you a heads up on that.

MS. MEDLY: This is Rachel. Can everybody hear me?

MS. MERSFELDER-LEWIS:  Yes.

MS. MEDLY: Okay. Yes, I --

MS. BOWIE: It appears that webinar is unmuting and muting people on its own. We have unmuted pretty much everyone. So I have just unmuted people yet again. So, hopefully you are able to hear and also participate.

MR. EDWING: This is Rich Edwing, can you hear me?

MS. MERSFELDER-LEWIS: Yes.

MS. BLACKWELL: This is Juliana. Can you hear me now?

MS. MERSFELDER-LEWIS: Yes, we can.

MEMBER HALL: Thank you.

MS. BOWIE: Does anybody else need to be unmuted?

MS. MERSFELDER-LEWIS: Click Larry Atkinson.

MS. BOWIE: So pretty much everybody. Okay. All right.

MS. MERSFELDER-LEWIS: No, not everybody.

MS. BOWIE: He self-muted. So some individuals are self-muted; some individuals I can unmute.

So, anyone else before we move forward?

MEMBER HALL: Thank you, Tatiana.

MS. MERSFELDER-LEWIS: Can you unmute Andy Armstrong and Dave Maune?

MS. BOWIE: Again, some are self-muted. If you need any assistance, please send us a chat. I just unmuted a few that I was unable to unmute. That means you should be unmuted.

If you have any further questions, please send us a chat and I will try to get to that as soon as possible.

MR. ARMSTRONG: Thanks, I'll go ahead and mute myself.

MS. BOWIE: Okay, great.

MEMBER SHINGLEDECKER: Okay, so back to the comments about the UKHO. I think that those actually came from Ed or Sal, if I'm not mistaken -- from Ed Saade or Sal. Is that correct?

MEMBER RASSELLO: I think it came from me and I can explain a bit further.

The local correction, original, are not permitted to the UKHO and, therefore, they are not readable on the electronic charts.

And the way that the UKHO permits this on the electronic chart is a system called the Admiralty Information Overlay.

RADM SMITH: Okay. So I think, if I understand this correctly, it is the clarification that I suggested was right, I think that the Local Notice to Mariners is the source for some of the information that is in the AIO.

And the Local Notice to Mariners is a U.S. Coast Guard publication. So I think this is -- I appreciate you flagging this, Sal, for our attention.

MEMBER SHINGLEDECKER: Okay. So to edit this comment for clarity, changing Local Districts to Local Notice to Mariners.

RADM SMITH: To Local Notice to Mariners.

MEMBER SHINGLEDECKER: Okay, I can do that.

Anything else on this topic?

(No response.)

MEMBER SHINGLEDECKER: Okay, moving on to Section 3, ENC and RNC Chart Updates and New Editions; 3.1 Normalizing ENC Depth Contours. General agreement that standardizing scales and contour values is important; concur with adding additional integer unit contours and a note -- we jumped the gun here but a note about changing to metric as soon as possible comes up here. It comes up again later.

New integer contours should not be added without removing decimal meter contours. And then some examples of importance with the Port of Los Angeles were given.

Any further discussion on this section or clarification needed?

MEMBER HALL: I just want to say I think I know that Sal probably Ed put this in but I this is something I think a lot of us would agree with, especially the moving to metric and not having multiple different values for contour lines.

MEMBER RASSELLO: If I can further explain the metrification, it is not just to translate the fathoms of feet in metrics but also to add identity of metrification in narrow channels and in enclosed waters in order that every operator or user can use the most of the back of that area of that channel.

So if the channel is metrified meter-by-meter, obviously, I can use to be the site of analysis when I do my voyage process plan.

So, it is not just to translate in meters but it is also have a good density of bathymetry in meters.

MEMBER SHINGLEDECKER: Okay, I didn't have a bullet on that.

RADM SMITH: Yes, was that captured in here? I don't see it.

MEMBER SHINGLEDECKER: I don't believe it is.

RADM SMITH: I think that is an important additional point, Sal and Susan is going to capture that.

MEMBER SHINGLEDECKER: Yes. Anything else on the normalizing of the ENC depth contours?

(No response.)

MEMBER SHINGLEDECKER: Okay, moving on to Metrification of ENC and Raster Charts. As I said, it was mentioned earlier but we concur that the U.S. charts should be changed to overall metric format as soon as possible. We further go on to say we would love to know more about soon and pick what soon is with a reasonable fixed date. And then we go on further to suggest a priority of charts to be converted to metric. And then I know I added that significant educational outreach will be needed on the move to metric for nonprofessional mariners.

Are there any other comments on the metrification of ENC and raster charts?

CAPT BRENNAN: I would just say mariners.

MEMBER SHINGLEDECKER: You think everybody needs it?

CAPT BRENNAN: I know that that is going to be the case.

MEMBER SHINGLEDECKER: Yes. I mean from my perspective, I mean my initial thought, we were out cruising just two weekends ago and I know exactly when we stopped moving because we have run aground on my depth sounder. But that's in feet.

If you ask me today, I mean I have done metric conversions a lot but I don't know what my boat draws in meters. I know what it draws in feet.

RADM SMITH: You just have to experiment, Susan.

MEMBER SHINGLEDECKER: Right. I can tell you at 3.8, we're not moving. We found that the other night. I can tell you where that was on the Red River.

Okay, moving on, 3.3, Reducing Unwarranted Alarms/Isolated Dangers. A problem not mentioned in the document is dual compilation scales within one ENC due to an insert and an example is provided. We suggest creating a dedicated ENC for each inset to the chart.

Add metric values to non-dangerous point features of unknown depth and it talks about if the imperial-unit depths of these features are being updated, add metric values at the same time.

When compiling metric values for subsea features on charts, do not forget to compile metric value for overhead clearance.

Any other questions, clarifications, or discussion on reducing unwarranted alarms?

(No response.)

MEMBER SHINGLEDECKER: You guys are easy on me today.

3.4, Channel Tabulations. This came up and it came up in a discussion that I saw I think via email where there was some concern about the Panel's comments on the National Charting Plan if those comments are to NOAA or to the Army Corps of Engineers. And I made a note here, as we start to get into the Army Corps of Engineers related comments. And I thought about that a little bit that as a Panel that it's our job to advise NOAA but since this Army Corps of Engineers is in this document so much, I think we certainly can comment on the plan as it relates to that. But if we need to have broader discussion on that, we can do that.

So anyway, 3.4 Channel Tabulations. At least two U.S. Army Corps districts published disclaimers, stating that their channel condition surveys should not be used for navigation and that mariners should refer to the NOS nautical charts. This conflicts with the National Charting Plan recommendation to refer mariners and pilots to current U.S. Army Corps surveys. If the U.S. Army Corps states that its surveys are not adequate for navigation, why should mariners and pilots rely upon them? And then there are some examples here given.

The document says that NOAA may remove all depths from channels. This was a pretty strong recommendation from a number of Panel members that they do not agree and all channels should have depths.

Do we need more discussion on this part? Okay.

RADM SMITH: Was this -- was that section -- was the -- sorry. In the plan, did the plan propose to remove depths from channels? I thought that was only on the paper charts, paper and raster, so as to concentrate effort on better charting on the ENCs.

MEMBER SHINGLEDECKER: I'm not positive.

RADM SMITH: Does that clarification change the recommendation from the Panel about all channels should have depths? Are you saying on the paper chart as well?

MEMBER SHINGLEDECKER: I'm looking to see where we were getting that from. Does anyone else recall?

MR. ARMSTRONG: This is Andy. It seems to me that Part N did say that we were considering not putting them on the paper charts. I don't recall that they might not be in the ENCs.

MEMBER HALL: Maybe it is worth further clarifying in the actual paragraph where that's found.

MEMBER SHINGLEDECKER: I'm seeing here -- I'm not sure if this is the right --

RADM SMITH: It says page 20.

MEMBER SHINGLEDECKER: Yes, that's where I'm trying to dig in a little bit. I mean we have generally depth values are not shown within chartered channels, however, there are few exceptions, most notably in the Boston area.

Given the other changes and how Coast survey will be portraying channel data, the depiction of soundings within channels is being reevaluated and these depth values within channels may be removed from raster charts and ENCs in the future, realigning these charts with the standard NOAA charting practices. I think that was the line that that was addressing.

RADM SMITH: Okay, so we hear your recommendation loud and clear.

MEMBER SHINGLEDECKER: Okay.

MR. ARMSTRONG: So it sounds like what that meant was that places like Boston, where soundings are shown in the channels, that they would be removed or would be considered for removal, as opposed to changing the situation we have now where we show the channel tabs. We should be sure we get clarity on all of this, I think.

MEMBER SHINGLEDECKER: Would the Panel like to see me revise the comment to kind of cite the area in the plan where that is mentioned? Is there revision needed in our comment to clarify that further or is how it's represented now fine?

MEMBER HALL: This is Kim Hall. I think you do need to clarify that we are saying -- that the blanket statement that those values are needed I think kind of focus what we're talking about here. So I think it needs to be a little clarified with regard to what we're talking about. It's not on ENCs but perhaps the paper charts and that's what we mean so that if Shep walks out of the room today, he doesn't forget what we actually meant by that comment.

MEMBER RASSELLO: This is Sal. If I understand well this matter is that probably what that means is to remove those back where they are not needed but we should still keep the back lines in the channels and not just the single bad spots because they don't do any use -- what we use these, the depth line is to establish the safety contours where the ship or the boat can navigate or not navigate. And there should be no difference between the paper chart, or raster chart, or an ENC because all three are connected and replicate -- I mean ENC is taken from the paper charts. So if we remove that from the paper charts in the channel, we will not have any depth on the ENC. But we should leave the depth lines, the bathymetries.

That's the way I understand. Maybe I am wrong.

RADM SMITH: I don't want to get too deep into this but I will just note for the Panel, just to help with the Panel's discussion that we have switched that. So we are not -- while we did derive the original first generation ENCs from the paper chart, we are now doing it in the opposite direction and revising the paper charts based on changes to the ENC, where we have paper chart coverage that matches the ENC.

Now, the underlying proposal in the national charting plan is that we will be enhancing significantly our ENC coverage but not necessarily developing paper charts that match all of that improved coverage.

And so the switch from ENC --

MEMBER RASSELLO: I understand that we don't want to go back to update the paper charts because paper charts are going to go. So, if you work on ENC directly, you don't need to work on paper chart sites. That's what you mean.

RADM SMITH: Yes.

MEMBER RASSELLO: Okay.

RADM SMITH: So I guess I would ask for clarification from the Panel about whether all channels should have depths refers to the paper chart and the ENC or if there is any caveat in there about where scale can support it, et cetera, or if the recommendation is all channels should have depths, then that means we need larger scale coverage of many channels, which could, in fact, be a recommendation of the Panel but I want a clarification.

And the second clarification is Sal suggested we don't actually need the soundings in the channels, we need the contours, which is not the same as what is written here. So, if there is a clear recommendation there, then I guess I would ask for clarification on that, too, whether we are talking about soundings, or contours, or both.

MEMBER SHINGLEDECKER: I'm going to put this back out to you all on the Panel. Most of my votes, the recreational guys, they don't need to know. I mean 50 feet, 60 feet, it doesn't really matter to them.

Is there someone that -- I mean do we want to discuss it further now here what we want or is there someone that volunteers to write a couple sentences of clarification and send that to me?

MEMBER RASSELLO: I think that John -- what's his last name, I don't remember, the guy from hydrography, he can clarify this.

MEMBER HALL: John Nyberg?

MEMBER RASSELLO: Yes.

MEMBER SHINGLEDECKER: Well, what I heard from Shep was he wanted clarification from us.

MEMBER RASSELLO: I understand but --

MEMBER SHINGLEDECKER: Do we mean that all channels should have depths at what scale? I mean is it all -- every channel on every chart must have depths or is it you must be able to get it if you zoom in enough? And is it contours or is it soundings? That's what I heard from you.

RADM SMITH: Yes.

MR. ARMSTRONG: Or, in fact, is it a channel tabulation? So, it seems to me when I read -- this is Andy again.

When I read the recommendation, what the concern was was the possibility that mariners were being asked to go to the Corps of Engineers for the depth information, as opposed to having it on the chart in some form or another.

RADM SMITH: Okay, I think that's a helpful clarification.

MEMBER SHINGLEDECKER: Yes.

RADM SMITH: If that is the sense of it, then I think that is a very helpful and clear recommendation.

MR. ARMSTRONG: So I guess I would ask the Panel if that is, indeed, what the intent was here.

MEMBER SHINGLEDECKER: That's how I understood it, Andy.

MEMBER KELLY: That sounds clear to me, Andy.

MEMBER SHINGLEDECKER: Andy, would you mind sending me that in a sentence or two, so that I can add that in?

MR. ARMSTRONG: I'll do that.

MEMBER SHINGLEDECKER: Thank you. I'm just writing some notes for a second here, to make sure I get it as fast as I can but that will help me.

Okay, any further discussion on this, and particularly with the earlier comment on kind of the conflict between Army Corps saying don't use this data for navigation and we're saying use it for navigation?

Okay.

MR. ARMSTRONG: Well, I think, yes, that's the point.

RADM SMITH: Very well put.

MEMBER SHINGLEDECKER: How do we resolve that larger issue? Okay, Section 3.5, Reported, Existence Doubtful, and Position Approximate Dangers. This is more of an edit but this section should be its own separate third-level heading. It's not a subsection of Channel Tabulations. Thank you to Ed Saade, again, for the organization of the document overall.

To be consistent with MSC, if the mariner does not specify a safety contour, this should default to 30 meters, we suggest to increase the proposed depth value to 100 feet -- 30 meters -- as 30 meters has been recognized to be a safe depth.

I'm not versed in this comment very well, if someone wants to expand on it more.

MEMBER RASSELLO: Okay, I can. It seems we are talking about to use ENC and ECDIS. The ECDIS default but the ECDIS start going into they say is 30 meters. So from 30 meters going shallower, that is where we should have the work done on bathymetries.

RADM SMITH: Is this a threshold?

MEMBER RASSELLO: Yes, default for all the ECDIS is international citing for ECDIS. They don't read the detail over the 30 meters there. So there is no reason to do any detailed bathymetries metrification of over 30 meters from that. That is more or less what that means.

So, the ECDIS default is 30 meters. From 30 meters going shallower than when all the bathymetries should start showing the density.

MEMBER SHINGLEDECKER: Shep, does that comment ---

RADM SMITH: I guess I want to make sure I understand which part of the National Charting Plan you are referring to here.

MEMBER RASSELLO: This was into the same context of metrification, right? I think. Yes.

MEMBER SHINGLEDECKER: If that's the case, then we need move the comment and I apologize for not understanding what it was referencing.

MEMBER RASSELLO: You can remove it but what I have that with regard to that was 100 feet, up to 100 feet or up to 66 feet, was something limit but this should be 30 meters, 100 feet almost. The detail of the ENC charts should be up to 30 meters. I don't know if that is relevant for the paper.

I will find the paragraph. To be consistent with MSC.232, the mariner does not specify the safety contours. This should be default to 30 meters because that is what the ECDIS default is.

MEMBER SHINGLEDECKER: I guess I don't understand. We suggest the proposed depth value. Which depth value, where?

MEMBER RASSELLO: The value of the depth where it goes -- we discussed before about metrification, about density of bathymetries, correct?

MEMBER SHINGLEDECKER: Yes.

MEMBER RASSELLO: Yes, so these are to be extended up to 30 meters of depth because that is where the ECDIS starts reading. If I cancel open waters and I get into a port, when the keel clearance reaches 30 meters, that's when the ECDIS starting analyzing the precise navigation.

RADM SMITH: Can I ask, Sal, perhaps you are referring to the last sentence on page -- on the section on nondangerous wrecks of unknown depth on page 19, where it says Coast Survey is now undertaking an effort to estimate and populate safe clearance depth value for all wrecks deeper than 66 feet, 11 fathoms. This will eliminate much of the unnecessary display clutter. Is that what you're talking about?

MEMBER RASSELLO: No, I'm talking about page 8. The first paragraph on page 8 -- to be consistent with MSC.232.

MEMBER SHINGLEDECKER: Right. We're referring to page numbers in the National Charting Plan, itself, that triggered the comment.

MEMBER RASSELLO: Yes. Page 8 --

MEMBER SHINGLEDECKER: Page 8, that's our comments, the Panel's comments.

MEMBER RASSELLO: Yes. Is that not clear?

RADM SMITH: Which part of the Charting Plan -- if we were to look at what section I should edit, what am I editing?

MEMBER RASSELLO: I don't think you need to edit anything. This is just you asked me to explain what the 30 meters is, right?

MEMBER SHINGLEDECKER: It sounds like what I can do is move this comment over in the section where we're talking about metrification. I was going to add a bullet on the density of -- let me look at my notes -- on density and I could move this comment there.

RADM SMITH: Yes, this -- it seems to me that this is relevant to --

MR. ARMSTRONG: Admiral --

RADM SMITH: Go ahead, Andy. Sorry.

MR. ARMSTRONG: Yes, I recall this at the meeting, too, and I think Sal brought it up in relation to just the passage that you cited a minute ago about -- I think his concern was, at that time, was that 11 fathoms wasn't enough, that it needed to be 30 meters.

MEMBER RASSELLO: Yes.

RADM SMITH: Okay, so we're talking about the last sentence of the section on Nondangerous Wrecks of Unknown Depth on page 19. So that is the -- I understand what you're trying to get at and it applies to that sentence.

MEMBER SHINGLEDECKER: I will make that citation more clear.

RADM SMITH: Yes.

MEMBER SHINGLEDECKER: And I'll revise it to make that citation more clear.

RADM SMITH: Okay, thank you.

MR. ARMSTRONG: Thank you.

MEMBER SHINGLEDECKER: And I appreciate the clarification. Because like I said, the value of this Panel is that everybody has a different perspective and I certainly don't understand all of them. I have learned so much.

Nondangerous -- just making note.

Okay, from there, we moved into use trusted sources to --

Okay, moving on. So we went into use trusted sources to prove objects near their working areas. So, as Army Corps, Coast Guard, and others are in those areas, use them to prove objects, where they are.

Also use satellite and aerial photogrammetric -- I knew I was going to say that wrong -- photogrammetric -- yes, you know what I mean -- to prove the existence position of objects. And then we go into a few examples.

And further comment that this is a low-cost, low-overhead method of detecting wrecks and obstructions in clear water. It won't suffice for disprovals but it will help declutter the chart.

Any other comments or questions, clarifications in this section?

(No response.)

MEMBER SHINGLEDECKER: Okay, moving right along to Small Craft Charts.

There was a question about do the red arrows indicate north for each chart panel? It is not clear. The orientation of each chart panel does not necessarily mean the chart panel orientation is north up.

And I kind of laughed at this comment because I think that is kind of the whole point of fixing this problem is that that is a problem for everyone and we couldn't even necessarily understand it was depicted in the plan.

RADM SMITH: We need a better caption on that.

MEMBER SHINGLEDECKER: Yes.

RADM SMITH: Okay.

MEMBER SHINGLEDECKER: I think the point of the image was to show how confusing it is and it did, it was successful.

And then someone put why not make small craft chart available in KMZ format. Google Earth has apps for Android and iPhone. It would be an easy way to get charts into georeferenced format that people are already accustomed to using.

Another comment on making an S-series of charts. I thought this was interesting. Make small-scale small craft ENCs and RNCs as insets or overlays to a distinct set of larger scale charts, much in the same manner that BOEM lease blocks in the Gulf of Mexico are overlaid on A-series charts. This would put charts together in a reasonable, logical manner without cluttering up existing charts or distracting commercial vessel masters. And a couple examples were provided there.

Are there any questions or further discussion on small craft charts?

(No response.)

MEMBER SHINGLEDECKER: All right, Section 5. We have a lot to say about U.S. Army Corps of Engineers Data for Ship Channels.

There was just kind of a general comment which I think we have been saying for a number of years was the discussion of Army Corps issues and pleased that the issues are discussed openly in the National Charting Plan. There is no reason these two major government bodies tasked with hydrographic surveys should not consult with one another for improvement and standardization.

And kind of a general call that all Army Corps districts, whose products overlap NOS charts should be part of this National Charting Plan development. They should be committing to timeframes for adoption of eHydro delivery method/schedules. And again, I think this was one of those areas where I know some Panel members were like hey, who can tell the Army Corps what to do here and figuring out our best mechanism for providing the feedback and the importance we feel on this area.

There was an acknowledgment about budget reductions necessitating more cooperation and resource sharing, suggests setting up dedicated points of contact, specific communication protocols between the entities.

Again, further coordination suggested set up site visits and/or virtual tours, including horizontal and vertical datums, and just recognizing the complex task and that multiple sessions may be necessary.

Further, we go on to say that Army Corps Districts must -- that's a strong word -- adopt and adhere to consistent quality standards between districts and within individual districts for the delivery of their products to NOAA, so that NOAA has the confidence in the use of the Army Corps data for charts.

We go into that a little bit further, the concern about being in different datums and I know Gary actually has a comment to add on datums and moving to new datums.

Serious focus will be required to ensure that Army Corps and NOAA data are compatible and of adequate quality for nautical charting.

On the next page, we say given that Army Corps-controlled depth channels are some the most navigationally significant waters in the nation; suggest working with the U.S. Army Corps to ensure better-than-CATZOC B coverage is obtained during all routine channel condition surveys. This may be as simple as collecting sidescan sonar data and sending it to a designated NOAA unit.

If a contractor hired by the Army Corps for channel condition surveys is also a trusted NOAA contractor, then the Army Corps may specify object detection surveying as part of the scope of the channel condition surveys, and that the contractor shall process object detection data in accordance with NOS specifications and submit the object detection data for review, as an effort to save effort on the part of all organizations and be more cost-effective.

For distributing NOAA, U.S. Coast Guard aids to navigation and Army Corps-controlled channel updates simultaneously; suggest linking the distribution website to Notice for Mariners, which is where people already go to look for updates.

Important to recognize that eHydro is an Esri-based distribution format, not a set of survey specifications and deliverables. Incorporating eHydro deliverables must be considered as a separate item and eHydro will not replace serious discussions on survey quality and survey specifications.

Army Corps has declared that only data from eHydro should be used. This is a good step but how will this affect getting data from the districts that do not use eHydro onto the charts?

And need to determine a fixed time line for the eHydro rollout.

That's an overview of a really big section. What do we need to discuss?

I know there's something. Come on, guys.

CHAIR HANSON: So, I'll go ahead -- this is Bill Hanson -- and just offer something I shared by email here. You know as an Advisory Committee to NOAA, I think we have to be careful about advising the Corps of Engineers. It's very easy for the Corps to ignore this or not even pay attention to it.

So, if we can rephrase comments or have them from the NOAA perspective, I think it would be more appropriate.

MEMBER SHINGLEDECKER: How do you all feel about -- I mean some of these things do require change on the part of Army Corps. Is there a better mechanism to get that message over to them or is it just that we need to word it carefully so that it doesn't seem out of place or off-putting?

MEMBER KELLY: Susan, this is Dave Kelly here. I kind of agree with Bill. We can advise NOAA, not the Corps. And I think our instructions should be that we recommend to NOAA to effect the coordination that is necessary with the Corps and just kind of do a work-around a little bit that way.

MEMBER SHINGLEDECKER: Shep?

RADM SMITH: Yes, I guess I think what Bill suggested is very helpful in that these are things that -- you know you are advising NOAA. So these are things that we can do or even more specifically what should be in the Charting Plan. Because we are specifically talking -- it's not that some of these recommendations should not be good recommendations to NOAA in general or in a different context, but in the context of the Charting Plan and how we should handle different types of data, et cetera, I think we should focus on the issues that can be responded to or included in the Charting Plan in this recommendation about the Charting Plan.

MEMBER SHINGLEDECKER: One of the -- I agree. And most of these comments were kind of cut and pasted and put in as they came in from individual Panel members.

So I know that many individual Panel members feel something needs to happen at the Army Corps level. And one of the overarching comments that Joyce had, I think, this is a National Charting Plan, not just a NOAA Charting Plan. And how do we make it a National Charting Plan that includes the other relevant agencies more, possibly, so that we actually can achieve what's necessary for that interagency coordination?

RADM SMITH: Again, I'm trying to -- this is an ongoing conversation.

MEMBER SHINGLEDECKER: Yes.

RADM SMITH: The conversation has moved significantly with the Army Corps, since the last time we spoke about it but I want to resist the opportunity, the temptation to update you on it now because we'll do that in September.

MEMBER SHINGLEDECKER: What would be most helpful to you, in your relationships with the Army Corps --

RADM SMITH: I think not pissing them off would be good.

MEMBER SHINGLEDECKER: All right.

RADM SMITH: We have enough levers to do that on our own.

So I mean you guys can -- you know report whatever -- recommend whatever you want. That's your prerogative.

Those things that are not relevant to the National Charting Plan that are in here may still be good recommendations that we will take under advisement in different contexts and that's fine.

MEMBER SHINGLEDECKER: Okay.

MR. ARMSTRONG: Yes, so there are several fairly significant sections on Army Corps of Engineer data in the plan and I think that the recommendations were sort of all bounced off of those sections but probably worth taking a careful look to make sure that they do, indeed, respond to those sections in the plan, where they're provided as recommendations for the plan.

MEMBER SHINGLEDECKER: Is there a Panel member who feels strongly about this section that would like to take a crack at rewording it?

I'm asking for help because I know we need to get these comments finalized and submitted Monday. I mean as soon as possible.

And if there somebody who has better relations or better insight into Army Corps that could help me with that, that would expedite the process.

CHAIR HANSON: I could try, Susan.

MEMBER SHINGLEDECKER: Thanks, Bill.

RADM SMITH: So as far as the timing, we have officially extended the comment period to July first but you know whenever you are ready to give them would be great.

MEMBER HALL: Yes, because I avoided putting out the thing for precision navigation because I didn't want to undo Susan's good work. So I hope you don't say I owe that paper to the Panel by July first.

So we can say by Monday for Susan, then I can put out my message for precision navigation on Tuesday.

MEMBER SHINGLEDECKER: I mean, honestly, I would like to just -- I don't want to delay until July first. I've got a window of time next week that I can focus on this a bit and I would like to get it wrapped up and move on.

So, thank you, Bill, for volunteering for that.

Next is Section 6, Vision for the Future of --

RADM SMITH: Can I make one comment? Because this has come up with NOAA contractors a couple of times. When we say NOAA survey, we mean NOAA surveys that include our contractors, right, not just by NOAA employees on NOAA vessels.

So just to clarify, when we say a NOAA survey or NOAA source, we make no distinction in our processes between a survey that was done by our own field units and those done by under contract to us for that purpose.

So, I know we have got several comments in here where it says and contractors. Like I said, I just wanted to clarify that.

MEMBER SHINGLEDECKER: Great. Any further discussion there are you going to wait, Bill, and fill in my edits on that section? Because there were other meaty things, if you want to discuss.

Okay, moving on to 6, Vision for the Future of the Nautical Charting. A general comment that came here was the time horizon of this vision is unclear.

6.1 --

RADM SMITH: Do you have a recommendation?

MEMBER SHINGLEDECKER: Perhaps clarifying the time line, I guess. I know this came up with the recreational boaters where people, in absence of seeing a timeline, they invented their own. They said you're making these --

RADM SMITH: Next year.

MEMBER SHINGLEDECKER: -- changes next year!

So you know people see future and to me, honestly, I think sometimes with federal agencies it is so rare to see this vision of the future that people didn't know if this is set in stone. Is this absolutely happening? Is it happening tomorrow or is this happening in ten years? Is this a maybe if things develop in this area or is this a we're laying the groundwork and putting the steps in place?

RADM SMITH: I think it's all of those things and without the firm -- so, we could clarify we don't have firm plans or timelines on any of these things but this is generally the direction we see this happening over the course of the next decade or more.

MEMBER SHINGLEDECKER: Yes, so I mean I wouldn't want to handcuff yourself to specific timelines. I think it's great that you are exploring just a future vision. But maybe if there is a way to clarify over the next decade or --

MEMBER HALL: Yes, I would say at least the next five to ten. There needs to be something there because if it is 20 to 30 years, then it is things that folks will decide never gets done because of changes in administration, changes in people and place. But five to ten is doable, potentially. I don't know how doable it is for you, Shep, but I know that that is an important thing if you will read this to understand kind of you are going to make strides over the next decade, fine, but I think it's important to have that in there.

MEMBER SHINGLEDECKER: Yes, I mean for Panel members that may not know, the recreational boating community was very quiet on the document and in the last two or three weeks, it's like they only read the last section. They missed all the earlier part.

RADM SMITH: Perhaps that was all that was forwarded to them.

MEMBER SHINGLEDECKER: They missed all of the earlier part that talked about all of the immediate changes. And if you had read those, you would understand that RNCs weren't going away next year but they only read the vision and panicked. So.

MR. HARMON: Hello? I don't know if you can hear me. This is Colby Harmon.

RADM SMITH: Hi, Colby.

MR. HARMON: Hi. So I just dialed in a couple of minutes ago and yes, we did get a flood of comments from recreational boaters.

I think we -- well, I know we intentionally left that section vague because it was not as much a prediction as a recognition of a trend. And I don't think there was any call for us to take action. It was just us recognizing that, over time, paper charts will become less and less important and it is something we should think about.

So, you know it would be impossible to predict when paper charts are going to go away, 5, 10, 15, 20, 50 years from now. So, I think we can certainly clarify in the next edition that this is not an imminent decision. We haven't already decided to do -- we have not decided to do away with paper charts but there is a time in the future where that is likely to happen. That's all that that section said and used big words like likely to, et cetera. Because the blogs that quoted or didn't really even quote the Nautical Charting Plan made assumptions about what those words meant, it sort of riled up the recreational boaters.

MEMBER SHINGLEDECKER: I think there is a way to just clarify -- you know you all look at what products get used, at what rate, and you are going to have products that meet the wide variety needs.

That is what the next comment gets to: recreational boating community has had a strong reaction to the concept of sunsetting paper charts. While more and more boaters are accessing chart products online and via digital means, there is still a large user base of the traditional paper chart products. Echoing the HSRP's --

RADM SMITH: Is that true or are they using ESB chart kits?

MEMBER SHINGLEDECKER: When I say traditional paper chart products, that is they may not be using a large format printed print-on-demand NOAA chart but they may be using a chart book or some third-party provider that --

RADM SMITH: So we very clearly mean those official chart products that are suitable for -- that meet carriage requirements that are printed to a performance standard by our POD providers --

MEMBER SHINGLEDECKER: Right.

RADM SMITH: -- period.

MEMBER SHINGLEDECKER: Right.

RADM SMITH: That's what we mean by traditional paper charts.

MEMBER SHINGLEDECKER: Yes.

RADM SMITH: So those paper products that are derived by private sector companies from our digital products are not affected by this.

MEMBER SHINGLEDECKER: Yes, I know.

RADM SMITH: So, I think that's where we need to clarify and that is what keeps getting missed here.

Even the articles talking about how valuable paper charts are, none of them showed the picture of paper chart that would be affected by this.

MEMBER SHINGLEDECKER: Right.

RADM SMITH: They all showed some very nice waterproof chart or a chart kit or something.

So I think we recognize we will need to clarify.

MEMBER SHINGLEDECKER: Yes.

RADM SMITH: So, we take your point.

MEMBER SHINGLEDECKER: The photo in our press release had an actual NOAA chart and, I'm the hand model.

RADM SMITH: Thank you. That was your hand?

MEMBER SHINGLEDECKER: That was my hand. I will tell you that chart is framed and on our office wall. It's not on a vessel because more people use them as art but that's a separate issue.

RADM SMITH: Okay, so maybe we can just take a quick break.

So Colby Harmon, I wanted to introduce, is the main -- the lead editor on the National Charting Plan and is day job is on staff at the Marine Chart Division.

Oh, and Carol, welcome. Carol Lockhart is a Panel member.

MEMBER SHINGLEDECKER: So just ending this section --

MR. HARMON: Good afternoon.

MEMBER SHINGLEDECKER: -- ending this section here, the main message on the recreational boater perspective, and I think Shep has heard it loud and clear but to have it in there is that data for recreational boaters must continue to be available in a variety of formats, including paper charts.

And when I say paper charts, I mean a way that people can have a chart printed on paper. It doesn't have to be the large format, traditional print on demand vendor product. We just need to be able to have a way for the person that wants a paper printout to get the data onto a piece of paper.

RADM SMITH: I think my father is the last one that uses official NOAA charts on a recreational boat.

MEMBER SHINGLEDECKER: No, in some of the interviews I did last week I said, okay, Memorial Day I was out with my family. We had three references onboard. We had a cruising guide. We had our chart book, and we had an app on our phone. And all were third-party products. All served us very well but none of them were a paper chart in that traditional sense.

RADM SMITH: So we are looking to optimize -- I mean so we don't need to clarify again but we're looking to optimize our production system to serve those products that are actually in use.

MEMBER SHINGLEDECKER: Yes.

Moving on to 6.2, Port ECDIS/Port ENC. The future of nautical charts should reflect the discussions of the Port ECDIS/Port ENC, which comply with the latest international standards for metrification and bathymetry density, at least every meter, starting from 30 meters inland. Additionally, this product should have a real-time weather data overlay. These elements are the foundation of precision navigation in ports and channels.

This is Sal's comment and I am wondering if does this, here, cover what we were talking earlier about with regards to density and the 30 meters.

MEMBER RASSELLO: Yes, this is correct. This is Sal.

I would remove that starting from 30 meters inland, probably, because that is the thing that confuses.

So yes, I think this is reflecting the same thing we see on page 8.

MEMBER SHINGLEDECKER: Okay, do you want me to move it? We had put it here because we thought it was more vision -- it was more future-looking. I just want to make sure I'm not being redundant. Tell me where to put it.

MEMBER RASSELLO: Yes, just -- I think it should stay as a future chart status but please remove that starting from 30 meters inland, that part.

MEMBER SHINGLEDECKER: So remove ‑‑

MEMBER RASSELLO: Remove the part saying starting from 30 meters inland.

MEMBER SHINGLEDECKER: So just have the sentence say, which comply with the latest international standards for metrification and bathymetry, period?

MR. ARMSTRONG: So after meter, period.

MEMBER RASSELLO: Yes, after every meter.

Okay, remove the part which says ‑‑ after density at least every meter; up to there that's fine. And then you remove the part says, starting from 30 meters inland.

MEMBER SHINGLEDECKER: So, it ends with density every --

MEMBER RASSELLO: No -- every meter, yes.

MR. HARMON: So what that is saying now is that we would have one meter density to the bottom of the ocean all the way out.

MR. ARMSTRONG: No, all the way in is what he means.

MEMBER RASSELLO: What it means for the ECDIS to work on a precise navigation, the ECDIS needs to have bathymetries at every meter in closed water, not in the open ocean.

MR. ARMSTRONG: Yes, for port ENCs, right?

MEMBER RASSELLO: Yes, for port ENCs.

CAPT BRENNAN: I thought that there was internal discussions at least about that but I think the intent to address contour intervals was going to be addressed in the next version of the National Chart Plan. But I know that internally that was discussed and that we were going to follow IHO. There is an IHO specification that talks about that interval which addresses I think what Sal's concern is. I mean that's esoteric, as far as your comments go.

MEMBER SHINGLEDECKER: And this is in that forward-looking part of the plan.

Section 7, Open Data and Marine Spatial Data Infrastructure. Is the MSDI a bathymetric database for all data submitted to NOAA, all data from NOAA sources only or only OCS? Would suggest a wider field than just OCS data. Database is critical for Marine Spatial Data Infrastructure.

Any questions or comments on that?

I have one additional comment from Gary which I think is an excellent one and represents the diversity of the Panel. Gary had a comment on the change in datums in 2022. His comment was in 2022, the National Geodetic Survey will replace NAD 83 and NAVD 88 with new horizontal and vertical datums. I recommend that the plan include information, how this change will impact the charts, and an overview of a transition plan utilizing the new datums.

We were debating where to put this in our comments and we think in the Vision for the Future, it probably could go there, unless we think it needs to be more in the immediate time, as opposed to the time frame unknown section.

Does anyone have comments on that or thoughts on where it should go?

RADM SMITH: For your comments, if you have overarching things like that, then you don't have to decide. You can let us figure out where it should go. Just make note of the datum change.

MEMBER SHINGLEDECKER: All right, we can do that.

That wraps up going through the comments as we had summarized them.

Are there any comments that anyone had that they didn't send to me or brilliant thoughts that came up while listening today?

(No audible response.)

MEMBER SHINGLEDECKER: Okay, I have that Andy is going to help me on a section on --

RADM SMITH: Before we go to wrap-up, should we turn the floor back to Bill, who can open the floor for public comments?

MEMBER SHINGLEDECKER: That would be wonderful.

CHAIR HANSON: Yes, I think we are supposed to open for public comment now. And so Gwen or Tatiana can tell us do we have any requests for public comment.

RADM SMITH: So we may have some written or we may, if we unmute everyone --

MS. MERSFELDER-LEWIS: So, currently there is nobody in the chat who has comments but if you have one, would you please go ahead and send one there?

So we have I think that there are four or five public people on the call. So Shana Kinsey-Carlsen, if you have comments, would you let us know? And if you don't, could you just send a chat that says no comment?

And Nathan Wardwell, the same thing. And James Haussener, welcome, by the way. We're glad to have you on. And John Mongoven, if any of you guys would like to make a comment, we would welcome you.

And if I missed any other public folks, I apologize.

But Carol, if you wanted to say anything, I know you're on. If you want to self-unmute, you are welcome. We would welcome your comments.

So, Shana Kinsey-Carlsen, if you are on the -- if you have logged in through the webinar, you would make a comment at this point. And Rachel, also, if you had a comment you wanted to make, that is, I think later.

Okay, I see no chats. I see no questions.

RADM SMITH: Wait we had a question or something.

Jim Haussener has a question that we are going to try and make bigger so we can read it.

I wanted to see if there were any questions.

RADM SMITH: I thought there was some --

MEMBER SHINGLEDECKER: I thought there was one.

RADM SMITH: I saw one from Jim but now it's gone.

MEMBER SHINGLEDECKER: I thought there was one, too.

RADM SMITH: Go back to the top?

MEMBER SHINGLEDECKER: Go back to the attendees and we will unmute anybody else who wants to be unmuted.

RADM SMITH: Jim, we can't figure it out but I think you sent a question or a chat. Are you now able to talk?

MR. HAUSSENER: I am able to talk. Whether or not you can hear me is always the difference.

RADM SMITH: We just got you unmuted. So, please say what you were going to say. Welcome.

MR. HAUSSENER: Thank you. There is just a lot of stuff in there but a couple of questions. One is I didn't see anywhere reference to crowdsourced data and I know that Admiral Glang and I talked about that several years ago but, since that time, the makers of the hardware, et cetera, have been doing a lot to collect data from their customers, their recreational boaters or commercial boaters, in order to provide that. I didn't see any references to if NOAA is going to be using any of that material after you do the appropriate QA/QC or not.

RADM SMITH: Okay, thank you for your comment. I think we should address that in some fashion in the Charting Plan.

MEMBER SHINGLEDECKER: I know that the Panel members, I think we briefly discussed it in Seattle. There was some confusion about what elements were part of the Charting Plan and what elements are part of other documents that we have seen early drafts of. And I know that crowdsourced data was part of some other efforts as well.

And Joyce made that comment, too: We should make it clear that this is the Charting Plan only, unless it would make sense to combine this with other documents.

MR. HAUSSENER: And then the other question or comment I had was you talk about how NOAA is doing weekly updates of ENC and RNC products. And the question was what is a mechanism to get the third-party vendors then to push that out? I mean if NOAA is doing your weekly updates, how is it getting to the ultimate consumer of that data, if the vendors -- and say I have got an Android phone. The vendors don't always provide all the updates that Google provides. How are you guys going to create a mechanism to get that information out to the end user?

RADM SMITH: That's a great comment and one that we are very concerned about. And I don't know how much we have about sort of dissemination issues or downstream issues in here. I think not much.

MEMBER SHINGLEDECKER: Yes. I can say I'm not sure exactly which users you are most concerned with but I know BoatUS has asked that question a couple of times and we are actually contemplating a couple activities to investigate who is using the latest data and how old is the data that is being used, to see if we can get a better understanding of that.

As I understand it, NOAA is not able to see or maybe not able to share who pulls the data how frequently. Because I would absolutely love to know which third party products are using the latest data that is available. It's a very good point.

RADM SMITH: Yes, I don't want to answer -- I don't want to get too deep into this now but we don't control that.

I would say the people that are in the driver's seat on that are the consumers of those unregulated products.

MR. HAUSSENER: Thank you.

RADM SMITH: But can we -- we'll take a note to comment on for both crowdsourcing and dissemination as potential areas to touch on in the Charting Plan, if only to refer to say that we're not dealing with that in this plan because there are other documents afoot as well.

So, thank you, Jim.

MR. HAUSSENER: Thank you.

RADM SMITH: Are there any other ‑‑ sorry to jump on you, Bill, here. We seem to have the technology going now to have other people chime in. Is there anyone else that would like to comment?

MS. MERSFELDER-LEWIS: Also I know we have a couple of members who haven't said anything and may want to comment. I think Ed Saade, he might be muted or self-muted, and Carol, and Larry Atkinson is on the line, too. We have a bunch of people on.

MEMBER SHINGLEDECKER: Any other comments?

I have notes that Andy is going to help me on Section 3.4, clarifying -- under Chart Tabulations, clarifying having not to go to the Army Corps of Engineers to get channel depth data. So, Andy, I will follow-up with you on that.

And then, Bill, we can work together to tackle how to reword the Army Corps sections more diplomatically.

CHAIR HANSON: Fair enough.

MEMBER SHINGLEDECKER: Any other comments, at this time?

RADM SMITH: Thank you, Susan for taking us through that. That was great.

CHAIR HANSON: Yes, thank you, Susan. And if I was there with you, as I promised I would be, I would give you a high-five. So I will give you a virtual high-five and a standing ovation for all your hard work on this so far. Thank you.

So, obviously, the Charting Plan is extremely important to NOS and NOAA and the public. So, it is good to see this progress and also the participation of the Panel and the public.

I guess it's okay now to go ahead and jump into our updates on other HSRP work. And if I could briefly just talk about some things that have happened since I -- things we have been working on since our Seattle meeting. We have submitted our letter to the new administrator or the person acting in a very, very long title of Mr. Friedman right now. But as it gets sent down, along with the three issue papers, total of 11 recommendations. We had five recommendations coming from our Recreational Boating Issue Paper. We had three recommendations from our Surveying and Charting in U.S. Channels paper and three more from the Improving Access for U.S. Nautical Charts.

So, again, I really appreciate a lot of participation and input on those documents, some of which we have been talking about for quite some time. So, it's good to get those done.

We have several other issue papers in the works and I'm glad to ask some of the authors to weigh in and give a brief summary. The first one is precision navigation. Kim, do you have an opportunity to just give us a quick update on where that stands?

MEMBER HALL: Yes, the Planning and Engagement Group talked about this last month. And my annotated or other built-out outline is soon to be accessible to most and I got some comments back from Lawson, and Andy, and a couple of others.

I was going to put it out right after that meeting but then I did not want to, very truthfully, Susan, I didn't want to co-op the time that people were putting into the

Charting Plan.

So my plan is as soon as we decide that we are going to sign-off on all those comments, I will put it back out for comment. It is a little bit more meaty now, looking a little bit more final. But I didn't want to be a rah-rah person. So, I didn't want to get too much into it if there was somebody who really had some heartache about what it looked like.

So, I will get that back out to the group next week, hopefully, and hopefully, we will be able to talk about it at the next Planning and Engagement Work Group meeting, which will be in July, on July 14th, I believe. So, hopefully, we will have this ready to go and it will be a pretty easy sign-off when we get to our meeting in September.

CHAIR HANSON: Terrific. Thanks, Kim and thanks for deferring to our Charting Plan Group as well.

Certainly, yes, you have noticed over your time on the Panel that we can handle quite a few things at a time but not everything at once. So, I appreciate that.

We have a Technology Issue paper underway. Ed Saade or -- I know Lindsay's not on. Ed, are you able to update us on that?

MS. MERSFELDER-LEWIS: So, Ed wrote us a note that he thought you guys did a great job and, for some reason, Ed, you are self-muted. I have tried to unmute you but I'm not able to and I believe that that is what that is. Tatiana is sitting here and nodding at me.

So, if you could try to unmute yourself or you could call my cell phone and I could put you on the speaker. But he actually had some comments for us.

Sorry, we're just not able to get him. He said he could hear us perfectly well.

CHAIR HANSON: Okay. Well, we know that it has still got some work to do and it's being developed. So we will get the update from Ed at the next opportunity.

We also have other items of interest that may or may not end up in papers but are certainly part of discussion. There is interest in a possible P3 paper, that being a public-private partnership and it's applicability to NOAA and NOS products.

And there has also been some discussion and something I think will probably develop over time as well is interest in autonomous systems, externally-sourced data, as we just discussed, and then continued discussion of surveying in harbors and channels in partnership with the Corps, which, getting updates on that on a frequent basis from Admiral Smith, who has been quite helpful to see the progress in that relationship, as important as it is.

So, where we are at, our next meeting is September. And I think, Admiral Smith, do you want to update us on the agenda there?

RADM SMITH: Yes, Lynne, do you have that up?

MS. MERSFELDER-LEWIS: Yes, I do.

RADM SMITH: Does everyone have the -- can everyone see it or have a copy of the draft agenda?

MEMBER KELLY: Yes.

RADM SMITH: Okay, great.

So we have --- there are a few things to -- I don't want to go through this line by line but I think there is a few things to highlight here.

One is that we, instead of having one day of sort of field trip activities, we are proposing to do that in two half days, to do one trip up to the University of New Hampshire for an afternoon tour there; then do another half day of meetings and panels; and then do an on-the-water demo of unmanned systems. And so that, I think we were reacting to what felt like perhaps a bit of meeting fatigue from some really long days. And I think this is a nice way to sort of break that up.

And on the day of the on-the-water tour, we will end that day down by the water, where we often have a -- when we're up in New Hampshire for the annual review, we often do a waterfront picnic. And so we can end the day with a cookout and a picnic in a beautiful spot on the coast there. So that's one thing to note.

I am interested in your feedback on a Panel -- on a session on unmanned systems. We proposed this as timely because of the University of New Hampshire's new sort of research focus on control and other research topics associated with unmanned surface vehicles for hydrography and the fact that we will be doing a demo there. So we put together a block to have that be a theme, overall, for the -- one theme overall for the meeting but would welcome any guidance you have on, one, the scope of that; whether we keep it fairly narrow to hydrographic systems, do it more broadly to include user applications, or other types of unmanned systems. A buoy, after all, or a satellite is also an unmanned system. So we can do this at any level.

So maybe we can have comments on that now. Any thoughts?

MEMBER HALL: Hi, it's Kim. I just saw that they put the Arctic Panel or the other update there. I think it's really important for this, one, to be at the top and I will speak for Lindsay as well because we talked about this. It has been a subject that has been on our minds. We had hoped to do it in Seattle and it didn't make the cut.

I think it is important to do it here, especially if we are going to see a system later on, that it is great to have an intro for those folks who aren't aware. Because if we see the thing zoom around on the water, that might not mean much to folks until we understand what the applications on it are. So I think it is really important to try to do this the first day at the time that is noted here. So, I just wanted to put that out there.

And I think that maybe we could -- it sounds like you can go wide and far or you can got a little bit in depth with the hydrographic one. I would assume, and I know Ed can't speak up right now, but I know that at least Lindsay has interest in kind of all the ways that NOAA could use the autonomous boats.

But there is also the concern, and I don't think Lawson's on, about the future where ships will be autonomous.

So I think we should probably try to limit what we talk about here and I think right now I think it is a great opportunity, especially if the demo we are going to see is a hydrographic boat, then maybe leave it to that, so that we don't get a little bit inundated and maybe our next meeting we can do the next subject on autonomous systems.

RADM SMITH: All right, any other comments?

MEMBER LOCKHART: This is Carol. Can you guys hear me okay?

RADM SMITH: Yes, we can hear you, Carol.

MEMBER LOCKHART: Okay, good. Sorry, I don't have my headset so I wanted to make sure.

I think this is going to be good, as Kim just said. I think it will be interesting for folks that aren't as familiar with these systems, if we can have somebody talk, like Thomas Chance, who is using a bigger system. And then if we can have the NOAA Z-Boat or something smaller more explained.

And then I think TerraSond has a really great presentation on how to use data from your guys' surveys up in Alaska last year. And I think that's a really compelling presentation because they talk about some of the issues they had but they also talk about why it was quite a success and why they want to keep doing it. And I think that might be good for folks that don't understand, necessarily, the technology as well, but it's a good exploration of why you would want to do this.

So, I would only suggest maybe we can't see if Andy Orthmann or somebody wants to give that presentation.

And then lastly, I think also hearing about the software, or vaporware, or whatever I think is important because when your stockings run autonomously, the software part is important as well.

MEMBER SHINGLEDECKER: I would agree with Carol that kind of that summary overview perspective, to make sure everyone's on the same page but I do love to see the practical applications. While I think the depth is nice, breadth is also nice, too, to really get the full understanding of the possible.

RADM SMITH: So if you talk about unmanned maritime systems then we could go -- I mean there is a lot of different things. There's gliders, sort of sail -- many of those things don't have application to the -- don't have clear application to the part of NOAA that we are trusted to discussing.

MEMBER SHINGLEDECKER: Keep it specific to the Tri-Offices, I would say.

RADM SMITH: Yes. And that's sort of where --

MEMBER HALL: That's what I was trying to say, Susan, yes.

MEMBER SHINGLEDECKER: Yes. Yes, as cool as it would be to hear about all of it, let's keep it specific to the applications for the Tri-Offices. But if there is a way to show breadth or some diversity in application, specific examples, that can be really exciting to see.

RADM SMITH: Sure. So, I'll just flag for you all that the TerraSond example is the same technology and probably the same example that Thomas Chance would use. So one was from the surveying company under contract to NOAA that used an ASV Global unit. The other would --

So I think for sort of fairness to the industry, I think it might be good to break that up some. Now, it could be that we would rather hear from TerraSond than from Chance and we don't need to decide that right now. But if anyone has any thoughts on that, you could pass those along to Lynne.

And we heard also a suggestion on a smaller unit from Carol, whether that is a Z-Boat or otherwise.

MR. ARMSTRONG: Yes, we actually have some small boats here as well. So we could potentially add that into the UNH demo.

RADM SMITH: Okay, great. Thank you.

And Leidos is a contractor that they are a contractor for NOAA doing survey work and also a systems developer for the Navy doing unmanned systems. And they were the ones that put together the Sea Hunter and that was with the ACTUV. So, it is more of a ship scale with sort of ship scale issues, integration, and engineering that is a little bit on the other end and maybe may start to scratch the itch a little bit about what the challenge and opportunities are for unmanned shipping.

So any -- I think I'm hearing that we keep it focused there.

So the third application that we flagged was and maybe RSD would like to chime in here is that the Remote Sensing Division of National Geodetic Survey has been experimenting with a small aircraft for doing small photogrammetry projects that has some potential for our applications, particularly in response.

Juliana, did you think that is something promising or is there something else that you would like to suggest?

MS. BLACKWELL: Hello, can you hear me?

RADM SMITH: Yes, we've got you.

MS. BLACKWELL: Hello.

RADM SMITH: Yes, you are online.

MS. BLACKWELL: Okay, I'm trying to unmute all the different things. Okay, great.

So the Ebee system I think that you are referring to, Shep, is a pretty small system and it is being used now in a research mode to capture imagery for small areas. I'm not sure that it fits into what the group is looking for but I'm really trying to understand a little bit better what types of systems and is this something that is in place now or something that is more futuristic as far as autonomous systems.

So, I'm not sure that the Ebee, from the Remote Sensing Group here is ideally what we're looking for because I don't see it being used for much from a charting perspective because it's just not really economical for that reason right now.

But I am really trying to understand if autonomous systems is much broader and would it encompass anything having to do with autonomous vehicles and the role that geodesy perhaps would play in ensuring that information is accurate from a baseline perspective to an able autonomous transportation economist system beyond maritime.

RADM SMITH: Any comments from the Panel?

CAPT BRENNAN: Can we see if Ed was able to get himself unmuted?

RADM SMITH: Ed, are you on now?

MEMBER SAADE: Yes, can you hear me?

RADM SMITH: We've got you. Welcome.

MEMBER SAADE: Great. You guys couldn't hear all the things I said about you.

RADM SMITH: Well, you can repeat the sanitized version now.

CAPT BRENNAN: Yes, we could feel you cursing on the other end, though.

MEMBER SAADE: So anyway, don't forget we have a Tech presentation on Monday and some of these topics could easily be included in this Technology Working Group presentation on Monday.

So whatever other things you want to talk about relative to the Plan for the autonomous presentation, let's remember we have that opportunity to summarize this and Lindsay should be involved as well.

But I agree, we want to make as much of this applicable to what we're talking about with NOAA, and charting, and coastal mapping. And there are autonomous aircraft sensors that we can include in the discussion that are relevant to coastal zone mapping, and shoreline mapping, and that sort of thing.

RADM SMITH: Okay. So, I think I heard the Technology Working Group volunteer to mature this section of the agenda.

MEMBER SAADE: Correct. That's correct.

RADM SMITH: Thank you.

CAPT BRENNAN: Lindsay, in particular, right?

RADM SMITH: Lindsay in particular. Thank you, Lindsay.

MEMBER HALL: I'm sure he won't have a problem with that, though.

RADM SMITH: So there were a couple of other suggestions that I think we wanted to get more clarity on. One was Lawson had suggested that we have an Arctic priorities focus in this meeting. Do we have any input on what form that should take?

MS. MERSFELDER-LEWIS: So, Lawson sent a note saying maybe somebody from Murkowski's staff might come; maybe somebody from UNH could talk about the work they're doing in the Arctic; we could talk about the surveys that we're planning for next year or out. And he had his own things that he wanted to update about.

MEMBER HALL: Does it need to be a full panel -- those usually take longer. I don't want to cut out Lawson's topic or anything like that but I know sometimes we are wanting for time. Can it be a presentation where somebody does a little bit about everything or it gets updated, or let Lawson run the show?

I'm just conscious of our time and where some of the interest this time, especially when it came to the unmanned systems for the majority of the group.

MEMBER SAADE: I can make a recommendation. There is an Arctic Ice Conference of some sort in the middle of July that some of us are going to be attending. And it would be probably pretty straightforward to do a summary of what is discussed at that meeting, as opposed to an entire panel.

MEMBER HALL: I like where your head is at.

RADM SMITH: So we have --

CHAIR HANSON: Since this is Lawson's last meeting, I want to make sure he gets a wrap-up.

MEMBER HALL: Yes, and that is why I want to find the most kind of effective way to do it. And I'm not sure a full panel but I want to make sure that we are hearing about the latest and greatest.

So maybe we ask Lawson, give him our recommendations on what we would like to see and ask him to put it together, with a time frame in mind.

RADM SMITH: All right, thank you. Right now, we have an hour on there. Does that seem about right, more or less?

MEMBER SAADE: I think that, myself, I am a big proponent of Alaska things, I think an hour dedicated is plenty to get all the points across.

MEMBER HALL: I agree.

RADM SMITH: Okay, thank you.

And then the next --

MS. MERSFELDER-LEWIS: Could I --

RADM SMITH: Yes.

MS. MERSFELDER-LEWIS: I just want to ask you guys to give your input to him and I will tell him that you guys, we discussed it at this meeting and he's going to hear some input from Kim, and from Ed, and maybe others about what -- you know so he has some idea about that.

MEMBER HALL: Sure thing. Not a problem.

RADM SMITH: So a couple of other questions on the agenda. We had a request at the last meeting to do a deep dive on datums. And as I recall, it was both sort of terrestrial and tidal datums but I don't think that we've actually kind of framed that very clearly yet.

Does anyone have any clarification or input on what they would like to see on that?

CAPT BRENNAN: Well, I think it was intended that --

MEMBER HALL: This is Kim Hall. I know that we asked for that and the VDatum specifically. And what I brought up in Seattle, I really wanted a presentation like what we saw from Carol. So, a little bit of mostly 101 and a little bit of in-depth, but something to kind of give everybody the same lexicon on the topic and then we are seeing kind of just general understanding without boring the folks that really, really know it. So somewhere in-between but not kind of hitting us over the head with too much information. And the best thing I can point to is Carol's presentation to us in Seattle, something similar to that.

RADM SMITH: Okay, who should do that?

MS. MERSFELDER-LEWIS: We tentatively put Juliana and Rich; Rich doing some time on that.

RADM SMITH: Okay. So --

MEMBER HALL: Well, I would assume, between Rich and Juliana, they would be doing it, right? It would be by request.

MEMBER SHINGLEDECKER: I might be able to get Gary or a state person to weigh in also, just for a different perspective, have a Panel member. I don't know how Gary feels about me volunteering him but --

(Simultaneous speaking.)

MEMBER HALL: -- in very technical terms. So I was hoping for something where somebody gave us that kind of general understanding and then would love to hear from Gary on kind of the application and how they are dealing with it, especially in light of the paper that we did last year.

But I would hope that somebody from the staff because I think you guys kind of know how to teach us all that, where it is not completely elementary but it is also not completely grad school level.

MEMBER LOCKHART: Oh, this is Carol again. If somebody from the staff can't do it, I would think, I don't know if Dave is online, but Dave or myself could probably do that for you.

But it seems like we should have somebody that can do this. I don't think it should be that hard.

MEMBER SAADE: I think one of Larry's students can do it.

MEMBER LOCKHART: Oh, there you go.

MEMBER SHINGLEDECKER: I was just going to say that Larry is an UNH professor that teaches datums for non-geodesists.

MEMBER SAADE: There you go.

MEMBER LOCKHART: That would be awesome.

MR. EDWING: This is Rich Edwing. Me and Juliana had discussed this. Like I said, it seemed to us that you were guys were looking for a Datums-101, just kind of a general definition and kind of some of how we generate these datums.

Certainly, a student can explain to you what the datums are. We can give you a little bit of behind the scenes of how we get -- you know how we kind of from here to there with providing those. And then we also talk about kind of where we see things going in the future, surveying on the ellipsoid, things of that nature.

But if that's not what you're looking for, I mean, you know let us know.

MR. ARMSTRONG: Yes, this is Andy. I have to agree that Rich and Juliana are probably in the best place to do that.

MEMBER MAUNE: I agree, and this is David speaking.

MS. MERSFELDER-LEWIS: Oh, I'm so glad you could get on.

RADM SMITH: All right. I think that clarifies that. I appreciate that.

So we're having a little bit of trouble cramming everything in, as usual.

One of the topics that we discussed, as we were working on this agenda was do we need to have the director's update or should we do it more topical-based, rather than -- and so if you want to hear an update on our efforts to work with the Army Corps on improving how we survey and chart channels, that would be a theme. Rather than having that be one thing that you would hear from me, we would talk about that as a specific topic, or if we want to talk about the NEEA Study or if we want to talk about -- so, we could have more specific, narrower, specific briefings, rather than directors' updates.

I know for myself, I put a lot of things on the table in the last meeting. And those are not -- most of those are still on the table. So, I don't really want to put anything else on the table but I would continue to like to work with you on those topics.

And so for me, I am happy to sort of forego my section of the director's update in lieu of giving more time for specific discussions on specific topics.

Any other directors have any comments on that or any comments from the Panel?

MEMBER MAUNE: This is Dave Maune. Can you hear me?

RADM SMITH: Yes.

MEMBER MAUNE: Okay, you mentioned the NEEA Study. We have just completed a study for the State of Florida in which we evaluated both the requirements and benefits of topographic lidar, as well as bathymetric lidar. And it's going to be seen as lessons learned from that as what will be used to evaluate the 3D Nation Study, which will include both topographic and bathymetric lidar.

I could get a status briefing on the lessons learned from the Florida Study on both topo and bathy lidar, if that would be of interest to the group.

RADM SMITH: I think that would work very well with maybe an update from Ashley. And I do know that the scope of work for the NEEA Study was informed by that Florida Study. And so I think that would work well to have you and Ashley tag team that update.

MEMBER MAUNE: Okay.

RADM SMITH: Thank you.

MEMBER SHINGLEDECKER: I would say, Shep, to your question to us, I would be curious if Rich and Juliana had additions to add, I think that the topic-specific-driven organization is more effective than just the general office updates. I love the general office updates. Perhaps if we could get like a little one-page summary in advance of the meeting to look at so that if people have questions about specific things, we can follow-up so that we don't exclude that altogether. But I have found that the specific topic, organization, or specific request to be -- it seems to motivate us more effectively.

RADM SMITH: Okay.

MEMBER HALL: I agree.

MEMBER SHINGLEDECKER: Does anyone also have similar or opposing thoughts?

MEMBER HALL: No, I completely agree and it is helpful for us to say what can HSRP do for you or what do we need to be aware of as things move forward with some of the other documents that we've seen and looking forward.

Obviously, for NGS 2022 could be important in just kind of understanding how we're tracking towards that.

MS. BLACKWELL: This is Juliana. Well, we can provide you know, if you want a one-page handout with information, especially with NGS and the 2022 update, we put out a quarterly newsletter on it. So, that would be easy to do.

The other thing that our office is involved in doing is providing a read-ahead highlights of that region, wherever we're meeting, and try to highlight the activities that are ongoing there. So, that's a little bit more information in a broader sense, programmatically. But that also describes the activities and then, in this case, it would be in the New England area that are ongoing. And again, we have been doing those updates for a while now. So, I'm sure that we will have it for the September meeting as well.

So, I think we can cover what you all would like to hear without actually giving an in-person presentation. So, I'm fine with that.

MEMBER SHINGLEDECKER: Yes, the regional-specific information is always great. It was amazing to me, personally, in Seattle, I was getting an email to join a working group from one of the panelists that was in the room at the time and he didn't know I was there and I didn't know he was there. Now, I'm on a Vessel Incident Working Group for the Olympic National Marine Sanctuary and we were just there. So, it really did inform that regional-specific information. That was very ironic.

RADM SMITH: Lynne, what did I leave out in my highlight of the --

MS. MERSFELDER-LEWIS: So just logistics-wise, it is going to be a little bit harder. Airport stuff is going to be just a little harder because Boston is a little farther. So we might authorize rental cars and people to share them back and forth a little bit more. And we will look into, again, like shuttles and, if you are flying into Manchester, shuttles for that.

MEMBER SHINGLEDECKER: Is Manchester closer than Boston?

MS. MERSFELDER-LEWIS: Oh yes, Manchester is a lot closer.

RADM SMITH: Closer, sometimes cheaper.

MS. MERSFELDER-LEWIS: It depends.

RADM SMITH: It just depends on where you're coming from whether it is convenient.

CAPT BRENNAN: If you are driving, you avoid driving through Boston, too, which is --

MS. MERSFELDER-LEWIS: So just please put the dates on your calendar, if you haven't already, September 12th through 14th. And I'll put a calendar hold as well through Google Calendar for those of you who use Google Calendar.

Andy Armstrong and Larry Mayer are going to give us a bunch of suggestions about what they think in terms of demos and tours, and presentations. And then you are going to get to see their really cool Gulf Surveyor Research Vessel and have an ASV demonstration. So, I think that's pretty neat.

I think one of the things we did is we put -- we tried to really listen a lot to what you said in Seattle about recommendations about not really topics but time for discussions. So, we put in one morning discussion, where you guys would have a breakfast and a discussion for two hours on whether it's the -- you know your comments on the autonomous systems roadmap or your comments finalized -- trying to finalize or develop new or old issue papers or whatever other things you want to talk about that you can talk about as a quote, unquote working group. So that's your cover to have a separate meeting. You can have a working group meeting and then you can come back to the bigger group and report out with anything you want to report out. That's one of the sessions.

And then you put in three sessions of an hour to an hour and a half or two hours for different discussions under the header of the Planning and Engagement Working Group but it is everybody, everything you want to talk about on the agenda, itself. So you have a lot of time to hash through the different topics or new topics.

One thing we didn't talk about that Bill had mentioned from Seattle was a P3, potential P3 paper. So, Bill, I know you wanted to mention that and I know you also wanted to mention your interest in the Army Corps of Engineers coming to the meeting. So I was going to leave that with Bill.

CHAIR HANSON: Yes, well the P3 paper I think is something we need to talk about a little bit and just see what the interest is and where that leads.

As far as getting somebody from the Corps there, since we have talked so much about this, I thought it might be convenient to get somebody from the Corps and their headquarters, possibly, to join us.

Admiral Smith, I know you had had some thoughts as well about maybe getting General Jackson.

RADM SMITH: I think it would be entirely lucky if we could get on his calendar and he would be willing to have a boondoggle to New Hampshire. But if we timed it right and maybe had the adjacent activity, whether it is the unmanned systems or the UNH tour, we may be able to entice him to come for a day trip. I mean it is possible to do a day trip, early flight to Manchester, day trip, and back, or a one overnight.

So, I think that is not out of the question, Bill, and he would be fabulous.

Second, the next level -- his main lead for responding to our concerns on surveying and charting issues is Tony Niles. And I think that that -- I would suggest Tony as a backup from General Jackson.

MEMBER KELLY: This is David Kelly. I think that would be a great idea to get a senior guy from the Corps.

RADM SMITH: Great. Now, the other thought we had is --

MEMBER HALL: Just real quick --

RADM SMITH: -- we are a little ahead on this and you don't know about this yet, but one of the things that we're working on with the Army Corps is a bit of a pilot project to show what is possible in one area. And the Philadelphia Army Corps District is very anxious and their user base is very anxious to do that.

So another possibility is that we may have a really willing and engaged Army Corps District that could -- we may even have something to show for it by then. And so we could potentially invite them in addition or instead of larger leadership.

MEMBER HALL: I just wanted to say one key thing because I think we can -- I mean I have only been on the Panel for what, a year and a half now -- is to make sure that we talk, if it is going to be the General, that we talk with his folks who write his talking points and ensure that it's not U.S. Army Corps 101. I think we all get that now. We seem to get the same presentation from those folks. No offense to them at all. I think it just helps to do some prep. And if it is something that our team can help with, somebody from the Panel can actually help and talk to what we're looking for, I'd love to do that.

But Philadelphia if that is more fully baked by then, I mean that is a really interesting one to hear about. As much as senior leadership is good to see, I think seeing how it applies to what we're doing and how things are moving forward would be very much value-added to our meeting.

MEMBER SHINGLEDECKER: I would say I get where Kim is coming from with that but I would say shoot for the top first. I think that it seems we have had pretty good representation in a number of meetings from Army Corps individual districts.

One of the biggest challenges I see with the Army Corps is there is just so little consistency district to district, to district. And that is one of the biggest challenges we face is that that inconsistency is hard for you guys to deal with.

And so if there is any way we can get somebody from the top, that would be where I would shoot for.

RADM SMITH: All right. I'll just shoot for Jackson. He's a good guy. And in fact, if we got him to agree to it in principle, we could use it as a bit of milestone for making some progress.

MS. MERSFELDER-LEWIS: Since our next meeting is going to be in DC after this, like you know March/April kind of time frame, and the Philly guys, if we can't fit them into that -- to our New Hampshire meeting, they could easily come down to DC and talk to us.

RADM SMITH: We could probably even do a panel with some of the stakeholder folks up there, too, who are really interested in these issues. So we could maybe make it a port-specific thing. I was talking about the port of DC. We could talk about the Philadelphia one later.

CAPT BRENNAN: Well, Jackson came up. I mean there is the Boston District is there. Maybe we could get some of his own people to come up to that, too. It might make it a little more enticing.

RADM SMITH: All right, did we get enough on that, Lynne?

MS. MERSFELDER-LEWIS: Yes. Yes, I think we are good on that.

Go on to other business.

RADM SMITH: Okay. So, if we are going to shift away from the agenda for -- the meeting agenda for the September meeting now, of course, this is never done until we get close to being there but Lynne will send out a new version with your input included from this meeting here in the next few weeks and we will keep moving from there.

So, if I may, Mr. Chairman, may I call on Rachel Medley, who is going to announce an all-interested staff brief?

CHAIR HANSON: Please do.

RADM SMITH: Rachel, are you on?

MS. MEDLY: Yes, I am. Can you guys hear me?

RADM SMITH: We can.

MS. MEDLY: Okay, great. I'll take you all off speaker. Everything is being slow on my computer. But hi, everyone. I think a good meeting.

I just wanted to make you all aware, and some of you already have this, that the NOAA Nav Services are going to do our first all-interested staff briefing for the Hill on June 27th from 1:30 to 2:30 p.m. And we have a flyer that we're going to send out. This is really geared toward getting Hill staff, particularly those that might be new to the Hill and don't know what NOAA Nav Services is all about. We're asking that, as HSRP members, you may have connections yourself to congressional staff or maybe you are part of associations that interface with staff, but Lynne will send you out the flyer and we are just asking that you pass it on to the appropriate level people so that we can get increased participation and visibility.

And really it is just all about an educational campaign here, just to get the Hill more informed on NOAA Nav Services and what we do and why it has value.

So, I will take any questions on it. Hopefully, some of you have gotten the flyer already and it will be in the Rayburn Building from 1:30 to 2:30 p.m. on June 27th.

Speakers will include Rep. Alan Lowenthal from California. He is co-chair for the Congressional PORTS Caucus and they are offering cooperation in hosting this event. So, the PORTS Caucus was able to host it for us.

Dr. Callender was the first chairperson to NGS, CO-OPS and Coast Survey and the value that we bring to the waterways. And then Rich Edwing will speak, and then Admiral Smith will speak.

And we will top it all off with one of our business partners that we have in NOAA Nav Services, which is the pilots. And so we have Captain Jorge Viso, who is the President of the American Pilots Association and he will not only talk about using the space but how NOAA data will help in terms of just giving support on the waterways, such as when you get increasing draft.

So, I will take any questions but will really suggest that just passing of this flyer on could really help get more support.

Thanks.

RADM SMITH: Thank you Rachel.

Any questions? I guess we can send out a flyer if we haven't already, to the Panel, that you could forward. We have already. Great.

MS. MERSFELDER-LEWIS: Yes, but we will send it out again because there is a slight update.

CHAIR HANSON: At this time, I just want to point out the importance of something like this. The PORTS Caucus has been particularly effective in advocating for port funding, maintenance dredging, freight funding, those types of things. So, it's good to get NOAA on that menu. So, well done.

RADM SMITH: Thank you, Bill. I think we are at the end of our agenda. Unless anyone else has any other business, we can start our wrap-up.

Bill, would you like to kick us off?

CHAIR HANSON: Sure, I'll kick us off and then turn it back over to you because I think we have been, as usual, not been very bashful about voicing our opinions. So I don't have much more to say. And I will leave it to you, sir.

RADM SMITH: All right. Well, thank you all. This has been a very productive meeting. I think we got some really great comments on the National Charting Plan; some that are challenging to us, which is exactly what we're looking for. And I'm feeling pretty good about the agenda for the fall meeting, as well.

And I am really pleased with the issue papers that are coming together. I think they are important topics and I expect that they will be useful to us.

I would like to go around the room, starting with the Panel members. Or why don't I start with the other directors and then we'll shift back to the Panel?

Rich or Juliana, do you have anything to add?

MR. EDWING: This is Rich Edwing -- go ahead Juliana.

MS. BLACKWELL: I was just going to say I don't have anything additional. Thank you.

MR. EDWING: This is Rich Edwing. Actually, I would like to send around to the Panel a notice of an Emerging Technologies Workshop that is going to be coming up in August.

Last year, NOAA held its first ever Emerging Technologies Workshop. It was really an internal affair. It was the very first -- again, it was kind of a baby step in that direction. The next time around, we are opening it up to other federal agencies, as well as the private sector.

I am going to send around, I can provide right now, a kind of a save the date outreach one-pager that provides the details of where and when and kind of the purpose of the workshop. Pretty soon, they are going to be opening the registration as well.

So, I will get that one page to Lynne and she can send that out. Thanks.

RADM SMITH: Thanks, Rich.

Well, why don't we start with Susan, since she's here in the room, made the big trek to Silver Spring?

MEMBER SHINGLEDECKER: I just thank everybody for your input on the charting plan and I will follow-up with Andy and Bill. And my aim will be to get you all back a revised draft early next week, with the aim of quick turnaround. Read it. If you have got more comments, let us know so maybe we can have it wrapped up by the end of next week. I mean quick.

But if anybody has a problem with that time line because of travel or anything, I don't think the changes were that substantial. But if there is a problem with that time line let me know.

Other than that, the only question I had was I looked recently on the website for the link to the most recent issue papers and the letter from Seattle and I didn't see it on the website.

MS. MERSFELDER-LEWIS: They weren't public yet.

MEMBER SHINGLEDECKER: Okay, when will a link be available?

MS. MERSFELDER-LEWIS: Bill, did that go out, officially by email? We don't post it until the administrator gets it. They don't have it yet.

MEMBER SHINGLEDECKER: Okay.

MEMBER HALL: I thought Bill said that they did send it.

MS. MERSFELDER-LEWIS: He sent it but it is not received yet.

MEMBER SHINGLEDECKER: Email's really slow.

MEMBER HALL: Okay.

MS. MERSFELDER-LEWIS: He didn't send it by email. He sent it by Express Mail or something. So I feel very loath to put up a letter that they haven't seen.

MEMBER SHINGLEDECKER: Right.

MS. MERSFELDER-LEWIS: The issue papers, no problem.

MEMBER SHINGLEDECKER: Yes, my main concern was with the issue papers. I was really excited to have someone ask for one of our issue papers. And I was like I want to give it to you but I don't know if I can.

So, and I need to -- I can't hand deliver it to this person. So, if there is a way to get it electronically --

MS. MERSFELDER-LEWIS: Yes, yes, you guys have it.

MEMBER SHINGLEDECKER: -- the final formatted electronically.

MS. MERSFELDER-LEWIS: Yes.

MEMBER SHINGLEDECKER: I wasn't sure if that was final, final or not.

MS. MERSFELDER-LEWIS: I'm assuming -- Bill normally sends out the letter or I will send it out but usually Bill sends out a letter and attachments to the HSRP. So, I'm just waiting to see.

So, Bill, if you want me to send it, I'd be happy to.

CHAIR HANSON: That's correct. Actually, the stuff that happened last time, I was wanting to make sure they get received.

MS. MERSFELDER-LEWIS: Okay.

CHAIR HANSON: So, if you can confirm that, when it is received. I mean I have got the FedEx tracking slip but I want to make sure I get the right people this time.

RADM SMITH: Great, thank you. And then following up on the issue papers posting to the website, when can we get that done?

MS. MERSFELDER-LEWIS: Soon, really soon. But we just literally got the last one updated and finished last night at 9:30 at night.

RADM SMITH: Okay, so end of next week type soon?

MS. MERSFELDER-LEWIS: Oh, no, I'll send it to them. Yes, by end of next week, probably a lot sooner.

RADM SMITH: Okay, great. And then can you send out an announcement to the Panel when they are posted? Thank you.

RADM SMITH: Other Panel members -- I don't have an easy way to go around the room -- on the phone.

MS. MERSFELDER-LEWIS: Well just, why don't we -- we've got two Eds. Start with the Eds.

RADM SMITH: Okay.

MS. MERSFELDER-LEWIS: I'll give you the list.

RADM SMITH: Why don't we start with an Ed? Kelly.

MEMBER KELLY: Two Eds are always better than one.

This is Ed Kelly. I've got nothing right now.

RADM SMITH: Okay, thanks, Ed.

Mr. Saade? I don't think we have Ed Saade.

Carol Lockhart.

MS. MERSFELDER-LEWIS: I think they have to unmute themselves again.

RADM SMITH: Do we have people muted by accident again?

MS. MERSFELDER-LEWIS: No, they have to unmute themselves.

RADM SMITH: We may have lost them. No Carol. Gary?

Dave Maune.

MEMBER MAUNE: I have no further comments.

RADM SMITH: All right. Larry, are you still there?

(No audible response.)

RADM SMITH: All right, how about Sal?

(No audible response.)

RADM SMITH: Sal, I think you are self-muted.

I know Kim is going to say something.

MEMBER HALL: What? That's not fair.

I already said my piece, actually, just a reminder that you are going to see precision navigation, I call it my meaty outline. It's going to go out to the rest of the group. I think you might have seen it last month but I will make sure it gets out to you with comments -- for comment. And if I could get those back within a few weeks, I'd appreciate it.

And that's it.

RADM SMITH: Great. Thanks, Kim.

I think I skipped Andy Armstrong as well, earlier.

MR. ARMSTRONG: Yes, thank you, Admiral. I don't have any other comments.

RADM SMITH: All right, thanks.

Who else did I miss?

MS. MERSFELDER-LEWIS: I think you got everybody.

RADM SMITH: All right. Well, thank you all. It's been a great meeting.

Bill, do you have anything last for the good of the order?

CHAIR HANSON: No, I think just again, I thank the public and also thank the Panel members. A lot of hard work goes into this and I appreciate your time and efforts. It proves there are some really nice products that NOS can use and we can all use. So, I appreciate that.

And do I need to get out some type of a hammer and adjourn?

RADM SMITH: Please do.

CHAIR HANSON: Well, I guess I'll have to do it virtually again. So, the meeting is adjourned.

(Whereupon, the above‑entitled matter went off the record at 3:12 p.m.)