

U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC  
ADMINISTRATION (NOAA)

HYDROGRAPHIC SERVICES REVIEW PANEL

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PUBLIC MEETING

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THURSDAY  
SEPTEMBER 18, 2014

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The Hydrographic Services Review Panel met in the Courtyard Marriott Grand Cypress Room, 125 Calhoun Street, Charleston, South Carolina, at 8:30 a.m., Scott Perkins, Chair, presiding.

PRESENT

SCOTT R. PERKINS, HSRP Chair  
WILLIAM HANSON, Vice Chair  
RDML KENNETH BARBOR  
RDML EVELYN FIELDS  
DR. DAVID A. JAY  
DR. GARY JEFFRESS  
ED J. KELLY  
DR. FRANK KUDRNA  
CAROL LOCKHART  
JOYCE E. MILLER  
SUSAN SHINGLEDECKER  
MATTHEW WELLSLAGER

NON-VOTING MEMBERS PRESENT:

ANDY ARMSTRONG, Center for Coastal and Ocean  
Mapping, University of New Hampshire

JULIANA BLACKWELL, Director, National  
Geodetic Survey

RICHARD EDWING, Director, Center for  
Operational Oceanographic Products and  
Services

ALSO PRESENT

RDML GERD F. GLANG, HSRP Designated  
Federal Official

MICHAEL ASLAKSEN, Chief, Remote Sensing  
Division, National Geodetic Survey,  
NOAA

PAUL BRADLEY, Policy Advisor, National Ocean  
Service, NOAA

CAPTAIN (sel) RICK BRENNAN, Chief, Coast  
Survey Development Laboratory, NOAA

RUSSELL CALLENDER, Ph.D., Deputy Assistant  
Administrator, National Ocean  
Service, NOAA

TIFFANY HOUSE, Project Analyst, Remote  
Sensing Division, National Geodetic  
Survey, NOAA

RACHEL MEDLEY, Chief, Customer Affairs  
Branch, OCS, NOAA

LYNNE MERSFELDER-LEWIS, HSRP Coordinator  
CAPTAIN (USCG ret) RUSS PROCTOR, Chief,  
Navigation Services Division, OCS,  
NOAA

KYLE WARD, Southeast Navigation Manager,  
NOAA

KATHY WATSON, HSRP Coordinator

DARREN WRIGHT, Maritime Services Program  
Manager, Center for the Operational  
Oceanographic Products and Services  
(CO-OPS)

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

	Page
Day 3 Agenda & Recap of Day 2 Panel	4
Discussion - Mr. Scott Perkins	
NOAA/NOS Congressional & Budget Update	22
Dr. Paul Bradley	
NOAA Navigation Services Office Updates	73
RDML Gerd F. Glang	
Mr. Rich Edwing	
Ms. Juliana Blackwell	
HSRP Committee Discussions and	186
Deliberations - Mr. Scott Perkins	

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

2 8:32 a.m.

3 DAY 3 AGENDA AND RECAP OF DAY 2 PANEL

4 DISCUSSION

5 CHAIR PERKINS: Good morning.

6 Well, as we enter into the third day of the  
7 HSRP here in Charleston, I'll take a few  
8 minutes to recap on yesterday's presentations  
9 and our charge in front of us to work towards  
10 concluding with some solid draft  
11 recommendations.

12 Margaret's remarks yesterday and  
13 her challenging us to think about shallow  
14 water and the national mapping strategy, Mike  
15 and I talked a little bit about that there is  
16 a plan for a coastal mapping strategy. So  
17 when Mike gets back in the room, I asked him.  
18 He's got a few slides that I think will be  
19 informational for us on the framework for the  
20 coastal mapping strategy.

21 Lynne and Tiffany and Kathy are  
22 working to either send to us email or to have

1 for us handouts encapsulating the output from  
2 the breakout sessions yesterday as well. Then  
3 we'll have that in front of us to work from  
4 and to consider in our deliberations.

5 Mike, are you plugged in? Almost?  
6 I gave him a few minutes. I requested it two  
7 minutes ago.

8 Does anyone have any initial  
9 comments they want to make regarding a recap  
10 of yesterday? Good, bad, ugly? All of the  
11 above?

12 Okay. I did get some email  
13 traffic last night from people that were  
14 listening as well. So it's good to know that  
15 the webinar piece, that piece of technology,  
16 has been working and there have been people  
17 listening and paying attention. I thought  
18 that was encouraging.

19 MEMBER WELLSLAGER: Scott, while  
20 they're doing that, what did some of the  
21 conversations in the email indicate? Were  
22 they happy with what was being done? Did they

1 have any positive?

2 CHAIR PERKINS: Yes, positive.  
3 Nothing succinct that I can report in other  
4 than they've been enjoying listening. It  
5 sounds like you're working hard which I think  
6 is true. We have been working hard.

7 MEMBER KELLY: Scott, just quick  
8 as we're waiting for Mike.

9 CHAIR PERKINS: Yes please.

10 MEMBER KELLY: This is his first  
11 rodeo. I guess I'm one and a half. So I'm  
12 allowed to ask questions that might seem a  
13 little bit inappropriate or naive. As far as  
14 it goes with the public sessions is it  
15 primarily our objective for us to see them or  
16 for them to have a chance to see us or  
17 something in the middle?

18 Because frankly, part of yesterday  
19 there was a certain amount of duplicity that  
20 was going on that we saw from the Port  
21 Authority and from the Corps. We saw the very  
22 same slides from some other people. And I'm

1 wondering if maybe did we need to see that or  
2 was it a good idea to let those people see us  
3 at that level, not just say the Jim Newsome  
4 level or working level so that they could  
5 understand what we can do for them.

6 I felt some of that time for our  
7 purposes may have been better used either with  
8 internal discussion or perhaps reaching out to  
9 some other folks in the community. I'm just  
10 throwing that out there. Just very frankly,  
11 it was good to hear the Salty guy. But if I  
12 ever in my life really know where the Ashepoo  
13 Cutoff is, I'm going to shoot myself. I don't  
14 know if I needed to get that.

15 CHAIR PERKINS: We may still be on  
16 the public webinar.

17 MEMBER KELLY: Okay. I'm just  
18 saying I don't know if -- Just as far as the  
19 meetings themselves and just to clarify  
20 perhaps for me coming relatively new, if it's  
21 our intent to see or to be seen or some  
22 combination thereof.

1                   CHAIR PERKINS: The intent is both  
2                   bi-directional in that regard. It's to give  
3                   the opportunity to observe and see how the  
4                   panel is composed, what we're charged with and  
5                   then the complete visibility through the  
6                   website and the reporting out for them to see  
7                   what our work product is.

8                   The action item in what we  
9                   attempted to do and what Kathy and I tried to  
10                  put in place was that request in what maybe  
11                  should have been a hard requirement to get  
12                  those presentations in our hands and in a  
13                  Board book or to have the opportunity to  
14                  preview them and then have editorial control  
15                  or censorship and eliminate the duplication.

16                  With this many presentations, we  
17                  recognize that there was a risk of having that  
18                  crossover. And we did request that all of the  
19                  presenters submit their materials in advance  
20                  so that we could review them and try to avoid  
21                  that if we put it out as a request and not a  
22                  requirement. I think maybe there's an after-

1 action or an item we can learn there. Lynne  
2 and I have already discussed that of trying to  
3 change that mechanism so that we can filter  
4 that and hopefully solve that duplication  
5 item.

6 The time allotted for the  
7 presentations I think is very valuable. But,  
8 yes, as long as the fidelity of the content  
9 isn't the same thing. Point well made.

10 VICE-CHAIR HANSON: And I would  
11 add if we could ask the presenters to include  
12 a slide particularly at the end explaining  
13 what their request of the HSRP is, in other  
14 words, why you're here and what can we do for  
15 you. That serves two purposes. One is it  
16 focuses their presentation and also it  
17 requires them to look up a little bit about  
18 how NOAA HSRP actually is and our mission and  
19 focusing the work of the presentation other  
20 than pulling something out of their back  
21 pocket that they give every day.

22 CHAIR PERKINS: Good point.

1                   VICE-CHAIR HANSON:  And by the  
2                   way, Ed, when you probably make the cutoff,  
3                   you'll probably be in pretty good shape, hand  
4                   behind your head, and just relax.  So it might  
5                   not be a bad thing.

6                   (Laughter.)

7                   CHAIR PERKINS:  All right.  The  
8                   floor is yours, Mike.  Thank you.

9                   MR. ASLAKSEN:  This was mentioned  
10                  a couple of times yesterday.  Of course, I'm  
11                  not Jennifer Wozencraft.  But this is a  
12                  presentation that was put together for the  
13                  briefing to the IWG, Ocean and Coastal Mapping  
14                  group.  Next slide please.

15                  And what this really is as what I  
16                  mentioned yesterday to Margaret, the national  
17                  coastal mapping strategy which has been worked  
18                  on pretty heavily for the last year and a half  
19                  and in fact unfortunately Dr. Chris Parrish  
20                  has left NOAA and went to Oregon State.  But  
21                  this was most of his leadership to pull this  
22                  together.

1                   But why was the IWG going after a  
2 national coastal plan? One was basically  
3 because we were from a national mapping  
4 standpoint and are the best organized at that  
5 time. So we leveraged that. But we did have  
6 the legislative mandate under the Ocean  
7 Coastal Mapping Act in 2009.

8                   There is clearly a growing need  
9 for coastal mapping which really was kick-  
10 started with Sandy and the realization that we  
11 don't have this data that supports a lot of  
12 modeling. If you look at our charts, one of  
13 the biggest areas where we don't have data are  
14 shallow areas.

15                   And then it leverages a lot of  
16 federal resources. And there are three main  
17 entities within this. It's USGS, NOAA and  
18 Army Corps that have these coastal mapping  
19 programs, but again, the map used many times.

20                   The approach, again built on our  
21 current mapping coordination activities and  
22 this is really through the JALBTCX. You heard

1 that horrible acronym. But it is what it is  
2 and it works.

3 I'm the lead for NOAA as far as  
4 that relationship with the Army Corps who is  
5 the chair of that group as well as the Navy  
6 and USGS. And our activities are very well  
7 coordinated in the data sharing. Much of the  
8 data the JALBTCX goes to the digital coast  
9 that you heard from Nicki yesterday. So  
10 there's some really good established  
11 relationships and procedures that are relayed  
12 that we take advantage of.

13 This is basically an aircraft that  
14 shows the acquisition type.

15 Again, run over the established  
16 relationship. We have very clear federal  
17 responsibilities. The Army Corps' mission is  
18 more about sediment transport. NOAA's is  
19 navigation. The GS is research and the Navy  
20 is from a defense standpoint. But  
21 collectively we've worked out day-to-day data  
22 collection standards that we can try to use

1 across those requirements. And then again  
2 there's a high priority data need. But  
3 pulling all the resources together, we do a  
4 pretty good job of trying to collect in this  
5 area.

6 Again, this speaks to why the IOCM  
7 folks really targeted this. It's all these  
8 players both private sector which is an  
9 important partner as well as the Federal  
10 capability. We've not only collected the data  
11 ourselves as a Federal capability or DoD  
12 capability, but also we leverage contract  
13 capability and have encouraged and grown that  
14 capacity.

15 I would say that as much  
16 collection is done by the Federal partners as  
17 is done by our private sector partners. And  
18 in some cases, we have really good models of  
19 go-co where we have government owned sensors  
20 operated by contractors and visa versa.

21 This is the last slide. This is  
22 the four main components of this plan. This

1 plan is out and I'll send it around to the  
2 membership for review to take a look at. But  
3 you've got the coordination activities.  
4 There's a common specification matrix kind of  
5 broken down to virtual response, environmental  
6 mapping and then charting.

7           And it does have a whole life  
8 cycle approach. Under Ashley Chappell's  
9 leadership with the IOCM within NOAA, she's  
10 really pushed, really pushed, on how often do  
11 we need to resurvey, what type of moneys would  
12 take to do surveys and what the target really  
13 is of resurveying at least the lower 48 on a  
14 five year cycle, but then also approaching  
15 using this to do places like Alaska and Hawaii  
16 that are mapped less frequently.

17           And then again continuing what  
18 we've always done at JALBTCX is look at what's  
19 around the corner, what are the technologies  
20 out there that we need to be evaluating and  
21 then investing in. That's something that this  
22 group has done pretty well. In fact, it's

1 what led NOAA to actually getting and  
2 purchasing and flying and contracting  
3 topography LiDAR. I went a little fast, sir,  
4 but I think that's what you wanted.

5 CHAIR PERKINS: Yes. No, I just  
6 thought that might help fill in the gaps. We  
7 heard about the coastal mapping strategy and  
8 we didn't know what to do with that time slot  
9 on the agenda this morning.

10 Yes, Gary.

11 MEMBER JEFFRESS: One of the  
12 things that I failed to mention yesterday  
13 afternoon after my little presentation looking  
14 at the poor quality of the FEMA flight  
15 insurance rate maps. Why aren't they using  
16 digital coast? Why isn't FEMA using digital  
17 coast to make those maps look at least like  
18 they're accurate rather than the childish  
19 style that they use for the coast line?

20 It would appear to be an  
21 opportunity for the map used once many times.  
22 So to leverage that.

1 CHAIR PERKINS: Yes. And I'm not  
2 prepared to answer for FEMA.

3 MEMBER JEFFRESS: Well, now that  
4 Juliana is a member of the TMAC. So there's  
5 an opportunity.

6 CHAIR PERKINS: In a macro level,  
7 I know they're moving away from flood mapping  
8 to risk mapping. And in the process of moving  
9 to risk mapping from the flood mapping, the  
10 cartographic requirements for those maps have  
11 changed and in their approach to delineating  
12 risk. In my part of the country there's been  
13 a lot of push and pull about the removal of  
14 uncertified levees in flood or risk. They're  
15 not flood protection structures. They're risk  
16 reduction structures. At the removal of risk  
17 reduction structures from the maps.

18 So highway embankments and  
19 railroad grades and things that look and act  
20 like levees or risk reduction structures, if  
21 they're not certified by a civil engineer,  
22 they're off the map. And the new risk

1 inundation contour, it's just like the  
2 structures don't exist.

3 MEMBER JEFFRESS: It's just a  
4 topographic accuracy. It's just not there.

5 CHAIR PERKINS: Well, I think that  
6 in the new product it may be risk map. Do you  
7 know Juliana?

8 MEMBER BLACKWELL: Juliana  
9 Blackwell. This whole technical mapping  
10 advisory council is just getting underway.  
11 And it will be an opportunity to learn more  
12 about what FEMA's plans are and to make these  
13 recommendations to the FEMA administrator  
14 about the best way to establish mapping  
15 procedures and guidelines and how to improve  
16 the accuracy, the quality and the metrics for  
17 flood insurance rate maps as part of the  
18 charge to the Federal Advisory Committee to be  
19 able to do that and talk about things like map  
20 maintenance.

21 I think in the past from my  
22 experience with NGS and working with FEMA is

1 that they were using whatever data was  
2 available. And what I have heard from them in  
3 managing the height modernization program and  
4 working with FEMA through their map  
5 modernization initiative was more of the it's  
6 not their job to do that base mapping. It's  
7 their job to take whatever data is available  
8 and make it accessible to users so that they  
9 can use that information.

10 I think with the events that have  
11 occurred over the past several years the  
12 understanding is more of we really need to  
13 have these things updated. But how do we do  
14 that? How do we coordinate it if it's not  
15 FEMA mission to do the base mapping per se?  
16 But how do we coordinate that so the new flood  
17 insurance rate maps and things that are  
18 produced are done in the most effective way  
19 and give you up-to-date heights rather than  
20 things that are just digitized, modernized and  
21 put out there even though the data itself is  
22 not accurate?

1                   I think as we get into this  
2                   Technical Mapping Advisory Council charge and  
3                   look at these different components of it I  
4                   think a lot of these different types of things  
5                   are going to get discussed and hashed out.  
6                   Then there will be the recommendations that  
7                   come forth from the group from a private  
8                   sector perspective as well as from the  
9                   federal, state and local governments  
10                  perspective.

11                  The group is made of 20 different  
12                  individuals, four Federal designees and then  
13                  the other 16 members are either state, local  
14                  and other Fed representatives. And then there  
15                  are eight basically private sector folks.  
16                  Maybe private sector is not exactly the right  
17                  word, but outside of the government entity  
18                  that will be coming together to help formulate  
19                  these recommendations with FEMA.

20                  I'll be happy to give you more of  
21                  an update after we get more into the meat of  
22                  it. But I think it certainly is great

1 questions and things to continue to look at  
2 how it's being done and what recommendations  
3 can we as a group or as NOAA put forward to  
4 FEMA to help make this a better program.

5 CHAIR PERKINS: Yes and maybe  
6 that's part of a national mapping strategy  
7 that Margaret mentioned to try and use the  
8 best data available for all applications.  
9 Okay.

10 MEMBER BARBOR: Juliana, do you  
11 have a time frame where you think you'd like  
12 to bring that forward? Would the next meeting  
13 be too soon?

14 MEMBER BLACKWELL: The TMAC is  
15 meeting for its first in-person the end of  
16 September. So that's a pretty advanced  
17 timeline as far as they plan to meet six times  
18 in a year. There is a report, at least one  
19 report, due annually and there actually may be  
20 two reports that are due.

21 So I think it's going to be very  
22 aggressive and a lot of work being done

1 getting up to speed on a lot of the background  
2 that will be presented. I think by next  
3 meeting I'll certainly be inundated with  
4 information about TMAC and mapping. So I'll  
5 be happy to share that next time.

6 CHAIR PERKINS: Great. I think we  
7 look forward to that. Frank.

8 MEMBER KUDRNA: Mike, I guess when  
9 you listed the Federal agencies involved I  
10 recognized one you talked about were the ones  
11 that actually do the mapping. But I would  
12 imagine the EPA and Interior use an enormous  
13 amount of shoreline maps for their properties  
14 and regulatory functions or contractors. Is  
15 that the case or is there involvement from  
16 them?

17 MR. ASLAKSEN: Correct. They're  
18 primarily from the USGS and the coastal  
19 program within the USGS that centers itself  
20 out of St. Pete. They do a lot more with the  
21 contracting to collect those data for their  
22 purposes. They do have a research level

1 system.

2 I think Interior is well  
3 represented from the standpoint. And of  
4 course all big users of our shoreline product  
5 as well. And there's been a lot more depth in  
6 interagency for using a consistent shoreline  
7 primarily to NOAA because lots of folks are  
8 doing different things.

9 But EPA, again we do reach out  
10 from the intercoastal mapping standpoint to  
11 other agencies as much as we can. But I've  
12 not seen or really had table from the coastal  
13 mapping standpoint. Doesn't mean I'm not  
14 using the data. But as far as requirements,  
15 I don't think we hear too much from them.

16 CHAIR PERKINS: All right. Paul,  
17 are you prepared to roll early?

18 DR. BRADLEY: Yes. Thank you.

19 CHAIR PERKINS: I see nothing  
20 wrong with getting ahead of the schedule.

21 NOAA/NOS CONGRESSIONAL AND BUDGET UPDATE

22 DR. BRADLEY: Good morning. It's

1       been I guess about a year and a half since my  
2       last budget and congressional update. So I've  
3       got a bit of talking to do. But I'll try to  
4       keep it to the highlights and leave time for  
5       questions.

6                       We have two budget years to talk  
7       about and Fiscal Year 14 is about to come to  
8       a close. But I don't know that you've really  
9       seen a lot of the numbers that we've been  
10      looking at for what we actually received in  
11      14. So we'll talk about that.

12                      And then what's happening with FY  
13      15 which as you know starts in a couple of  
14      weeks. And we get to have funding for that  
15      year.

16                      And then there's been a lot of  
17      activity on the Hill despite inactivity in  
18      terms of an actual outcome. But we've been  
19      busy up on Capitol Hill. And there's a bit of  
20      legislation out there that you should be aware  
21      of. I've talked about it last May, but I'll  
22      just do a little recap.

1                   Then we've also been busy working  
2 with other Federal agencies in D.C. So you  
3 should be aware of some of those activities,  
4 too.

5                   Here is the budget trend for the  
6 National Ocean Service between Fiscal Year  
7 2010 and FY 2015. Everything except 2015 is  
8 what we actually received or what we provided  
9 for in our spend plan after we got an  
10 appropriation.

11                   The orange bars represent our  
12 operations, research and facilities or ORF.  
13 And the blue is PAC which is procurement,  
14 acquisition and construction. Don't worry too  
15 much about the difference there between the  
16 two.

17                   But the obvious trend here is life  
18 was pretty tough for NOS between 2010 and  
19 2013. It's not atypical of the rest of the  
20 Federal Government. But it's a 20 percent  
21 decrease in the NOS budget over those few  
22 years. That's kind of a tough hit for the

1 agency.

2 And then you see since 2013 which  
3 was the sequestration year we've started an  
4 upward trend again which obviously speaks to  
5 a recovering economy. The Federal budget is  
6 doing a little bit better than they were in  
7 that sequestration year.

8 But I think it also speaks to the  
9 messaging the NOS has been doing both within  
10 the agency, within the Administration and on  
11 the Hill. We're doing a good job telling the  
12 story and they're recognizing the value of  
13 NOS.

14 I believe my boss, Glenn, briefed  
15 you on the new NOS budget structure in that  
16 May meeting. And if you don't recall, the  
17 National Ocean Service budget is broken into  
18 three subprograms.

19 The one that you're most  
20 interested in is the Navigation, Observations  
21 and Positioning which includes the three  
22 offices that you know of as Navigation

1 Services. And it also includes the Integrated  
2 Ocean Observing System or IOOS. There's also  
3 Coastal Science and Assessment which includes  
4 things like our National Centers for Coastal  
5 Ocean Science (NCCOS) and the Office of  
6 Response and Restoration which do oil spill  
7 response and other hazardous spill responses  
8 as well as things like marine debris.

9 And then Ocean and Coastal  
10 Management and Services, you're familiar with  
11 Coastal Services Center. Margaret spoke here  
12 yesterday. The Office of Ocean Coastal  
13 Resource Management, those are finally  
14 completing a merger and they'll now be called  
15 the Office of Coastal Management (OCM). And  
16 this also includes sanctuaries.

17 It looks like the right of this  
18 might get a little bit cut off. If you could  
19 move that over to the left side, we might be  
20 able to see those numbers a little bit better.

21 These are three buckets broken  
22 out. Within that NOS budget restructuring, we

1 used to have 20 individual budget lines or  
2 these white individual lines here. We used to  
3 have 20 of those in the NOS budget.

4           And we went through this budget  
5 restructuring so that we could provide a  
6 little more focus on the true priorities  
7 within NOS so that it didn't seem like we were  
8 just a collection of disparate parts. The  
9 goal is to reduce the size of our budget  
10 structure so that we could provide that focus.  
11 And then we also could provide some  
12 flexibility to the agency so that in tough  
13 budget years like 2013 we have a little bit  
14 more flexibility to make sure we're meeting  
15 our highest priorities and goals.

16           A few things I want to point out  
17 here. The first column is 2014. I couldn't  
18 squeeze 2013 on here so you could see the  
19 change from the 13 sequestration to 14. But  
20 the difference was somewhere in the ball park  
21 of \$20-\$25 million for all of NOS that we got  
22 back in 2014.

1                   Congress has supported the budget  
2 restructuring. From this point forward, this  
3 is the budget structure that you'll see from  
4 the National Ocean Service.

5                   In general, 2014 was a better year  
6 for NOS than 2013 because we didn't have  
7 sequestration to deal with. And I'll get into  
8 the one exception to that.

9                   There was the budget deal in  
10 Congress. The Congress finally could come to  
11 some agreement in terms of how they wanted to  
12 set the overall funding cap for the Federal  
13 Government. And they agreed on a number for  
14 2014 and 2015.

15                   So that provided us the window of  
16 opportunity to actually get an appropriation  
17 in 14. And that's the still the magic number  
18 going forward for 2015. We'll see how that  
19 plays out on the Hill.

20                   Let's see. I'll move. That's for  
21 all NOS. I'm not going to get into all the  
22 numbers here because I just want to focus on

1 the one program that you're most interested  
2 in, Nav, Obs, and Positioning, said program.

3           You'll recall that the former NOS  
4 budget had mapping and charting base. It had  
5 shoreline mapping. It had hydrographic  
6 research and technology. It had addressed  
7 survey backlog. All of those were the budget  
8 lines that more or less got wrapped up into  
9 this, geodetic services, tide and currents  
10 base. All of those are now kind of wrapped up  
11 into this Nav, Obs, and Positioning line.

12           The exception were things that go  
13 out the door. So this also includes the NOAA  
14 IOOS program budget. The money that goes out  
15 the door, big pots of money that go out the  
16 door, were identified separately. So Hydro  
17 Survey Priorities is our new name for Address  
18 Survey Backlog. And IOOS Regional  
19 Observations are the money that the IOOS  
20 program puts out the door to the 11 or 12  
21 regional associations.

22           The one exception I talked about

1 between the Fiscal Year 13 to Fiscal Year 14  
2 is the Hydro Survey Priorities or Address  
3 Survey Backlog. In FY 13 with sequestration,  
4 that number was just a little over \$25  
5 million. And it's the one budget line in all  
6 of NOS that actually saw a decrease from FY  
7 13 to FY 14 instead of about a five to ten  
8 percent increase.

9 So I think that's notable even  
10 though we haven't seen a rebound really since  
11 then. It's crept up a little bit, but for the  
12 most part that \$25 million is now the new base  
13 number for Hydro Survey Priorities. In 2010,  
14 it was \$31.2 million. So that line has gone  
15 down 20 percent since 2010.

16 I wanted to point out that take  
17 that as a contrast for this external funding  
18 for the IOOS Regional Program. In 2010, that  
19 line was at \$14.5 million. So in the same  
20 amount of time that the Hydro Survey  
21 contracting line has gone down 20 percent, the  
22 IOOS Regional Observations funding has

1 doubled. I have some thoughts on that, but I  
2 point it out more as an observation than  
3 anything else.

4 Let's look at 2015. The  
5 President's budget was held to -- Because of  
6 that budget deal, the President couldn't put  
7 forward to Congress some big fat budget after  
8 the Congress had just said, "Okay. Here's the  
9 number that we're working with for 2014-2015."  
10 So the President was working with a limited  
11 ceiling.

12 That's why basically OMB funded us  
13 at roughly the same level that we got in 2014.  
14 There were a few increases and a notable one  
15 is a \$4 million increase for Topography LiDAR  
16 and a \$1 million increase for Marine Sensor  
17 Development under the IOOS Regional  
18 Observation slot.

19 There were some other NOS  
20 increases in the 2015 President's budget. One  
21 of them was resilience grants. There was  
22 another one that looked at extramural coastal

1 research under the NCCOS program.

2 Looking at the House CJS, not bad  
3 really. I mean normally the President's  
4 budget goes to the Hill and the House says,  
5 "Yeah, that's nice." And they drop it down  
6 \$20 or so million.

7 This time they actually funded us  
8 -- at least for this line, for all of NOS, I  
9 think they were about \$20 million under the  
10 President's budget. They didn't like things  
11 like the resilience grants that go out to the  
12 regions. And they weren't crazy about the  
13 extramural research we wanted to put out to  
14 universities.

15 But they did like our Nav, Obs and  
16 Positioning programs. So you see that funding  
17 held pretty close to what we requested. And  
18 I don't know that the difference there is  
19 anything noteworthy.

20 This bill, the House Commerce,  
21 Justice, and Science Subcommittee, put it  
22 through the committee back in the spring. It

1 passed the full committee. It passed the  
2 House in May. And then it just sat there  
3 because they couldn't work their way through  
4 all 12 Appropriations bills. So that's there.

5 I meant to say before getting into  
6 the budget this is a bit of historical  
7 fiction. So I give you all this stuff that  
8 actually did happen, but the outcome is that  
9 we don't really know if any of it will come  
10 true.

11 The Senate mark on the Commerce,  
12 Justice, and Science side of the Senate, they  
13 tend to really look favorably on NOS. Their  
14 budget tends to be higher than what the  
15 President requests or at least higher than  
16 what the House provides. And that held true,  
17 although it's all really close which is a good  
18 thing for us.

19 They essentially met the  
20 President's budget with a few exceptions that  
21 I wanted to point out. There's a perennial  
22 earmark and I know it's not truly an earmark

1 now that those don't exist anymore. But  
2 there's a \$4 million regional geospatial  
3 modeling grant program that was added. And  
4 that for the most part comprises the  
5 difference you see there between the \$192  
6 million and the \$196 million.

7 That tends to be \$4 million every  
8 year. \$300,000 of that was set aside to  
9 establish a new ocean coastal mapping center.  
10 So there was some report language within the  
11 Senate CJS bill that says, "NOAA shall use  
12 \$300,000 to establish a new ocean coastal  
13 mapping center in another part of the country  
14 and it should be established at an institute  
15 of higher education."

16 Then I believe it's Senator  
17 Murkowski that put that extra \$250,000 very  
18 generously into the hydro survey priorities  
19 line. There is some report language in the  
20 CJS bill as well that calls for a report, NOAA  
21 to put together a report on its Arctic  
22 Hydrographic Surveying Program.

1                   And we've briefed -- as I'll  
2 mentioned in a minute, we briefed Senator  
3 Murkowski's staff on the work that we've been  
4 doing up in Alaska and the Arctic. Too bad  
5 Lawson can't be here to tell us about how  
6 important that is.

7                   The only other thing I'll mention  
8 from the Senate was there were PORTS language  
9 in there. So I know some external partners  
10 put a big push on the Senate side to try to  
11 get PORTS funding in there. The best they  
12 could really do was some language that said,  
13 "Within these numbers the tides and currents  
14 program gets \$5.5 million for PORTS," which is  
15 sort of what they spend on the in-kind  
16 services that 24/7 data management, quality  
17 assurance, product development, technology  
18 development, things like that.

19                   The bill did recognize PORTS as an  
20 important program. We recognize that some  
21 funding is already provided. And the bottom  
22 line was we encourage the President to request

1 funding for the full operational costs  
2 associated with PORTS in the future.

3           So the reality - that's all the  
4 fiction, the reality is that the Congress  
5 although they have all this great work leading  
6 up to actual appropriation in the spring and  
7 summer they couldn't get any of it over the  
8 finish line. So they're faced with having to  
9 do another continuing resolution that passed  
10 the House yesterday. They expect it to pass  
11 the Senate today. So it will be signed into  
12 law by the President probably by the end of  
13 this week.

14           Basically, we just get the same  
15 amount. If you're not familiar with budget-  
16 speak, continuing resolution just means you  
17 get what you got last year. They put in some  
18 anomalies, very few anomalies, to that.

19           For example, the satellite part of  
20 NOAA gets a free card to spend their money at  
21 their leisure as opposed to at a pre-  
22 determined rate. So we tend to not be able to

1 spend as quickly as we want to. This  
2 continuing resolution will give the satellite  
3 program the flexibility they need to maintain  
4 their launch schedule. That's an example of  
5 how they work some tweaks into it.

6 But we'll get what we got last  
7 year at least until December. The continuing  
8 resolution runs until December 11th. And then  
9 it's anyone's guess what they'll do from  
10 there.

11 One option is a full-year  
12 continuing resolution that will just keep us  
13 at what we've got until the end of 2015, next  
14 September. Another option is that they just  
15 kick the can down the road to the new  
16 Congress. We've got a big election coming up.  
17 So who knows how the Congress will change in  
18 November. And the new people coming on might  
19 feel like, "Well, I'd kind of like to wait and  
20 have my crack at the budget. So let's push  
21 this continuing resolution until March and  
22 then we can think about how we want to fund

1 the Federal Government in March."

2 Of course, another option is that  
3 they do an omnibus sometime in December.  
4 That's been thrown out there as an option,  
5 that the Appropriations staff work hard over  
6 the next couple months.

7 Congress is on break at the end of  
8 this week by the way so they can focus on the  
9 election. So they'll be back sometime in the  
10 middle of November. And then they get a few  
11 short weeks before the holidays to figure out  
12 what they want to do for funding for the rest  
13 of 2015. So stay tuned. It should become  
14 interesting.

15 Then I don't have a good track  
16 record for how the other parts of NOAA do.  
17 And I know you're interested in that. It's  
18 something I can work on and get back to you.  
19 But I want to at least show you how NOS does  
20 within the NOAA pie and you see it pulled out  
21 there in blue.

22 The biggest chunk is obviously the

1 satellite program. And then the weather  
2 service, OAR, the research component of NOAA,  
3 and then fisheries and then program support  
4 which are things like OMAO and the  
5 Headquarters operations.

6 So legislation - how am I doing  
7 on time? I want to leave time for questions.  
8 I know I had 10 minutes extra. So that's  
9 good.

10 CHAIR PERKINS: Yes. No, you're  
11 great.

12 DR. BRADLEY: Okay. Good. So  
13 legislation, I've mentioned these things  
14 before but I'll run through them quickly.

15 Hydrographic Services Improvement  
16 under the foundational authority for the  
17 programs that you're familiar with expired in  
18 2013. What that means is that we still have  
19 the authority to do the work. It just means  
20 we don't have an authorization of  
21 appropriations.

22 I think the Coastal Zone

1 Management Act authorization expired 20 years  
2 ago. So it doesn't mean a whole lot that your  
3 authorization lapses. It's fairly common.  
4 It's nice to have, though. So we continue to  
5 work with the Hill to pursue that and make  
6 sure they're aware of the authority and make  
7 sure they're aware of the importance of the  
8 program. We care more that they recognize the  
9 value of the programs than they focus on the  
10 legislation anyways.

11                   Congressman Young from Alaska  
12 introduced a reauthorization bill for HSIA in  
13 the spring of 2013. Admiral Glang testified  
14 on that and IOOS reauthorization bill in June  
15 of 2013.

16                   The bill is fairly simple. It has  
17 a couple of changes. So it reauthorizes the  
18 programs for four or five more years, puts  
19 some strict funding caps on that. It doesn't  
20 give us this great head room to get more  
21 appropriations, although that really doesn't  
22 mean much. It's kind of monopoly money when

1 you talk about authorizations.

2           There were a couple of changes in  
3 there. They called for GAO to do a cost  
4 comparison study between NOAA's fleet,  
5 hydrographic surveying and the private sector.  
6 It set a limit of overhead on the hydrographic  
7 survey priorities or the address survey  
8 backlog line of five percent. So we can't  
9 spend more than that on any in-house needs we  
10 have in order to support contracting and apply  
11 data to charts and that sort of thing and then  
12 the reauthorization of appropriations.

13           Those were the three changes there  
14 we testified on and shared some of our  
15 concerns with those provisions. And it hasn't  
16 moved since then. They haven't done a mark-  
17 up. It hasn't made it out of subcommittee.  
18 So there hasn't been a whole lot of momentum  
19 to push that or the IOOS Reauthorization Act  
20 over the finish line.

21           No activity in the Senate.

22 They're kind of aware of it, but not really

1 that motivated to take it up.

2 Ocean and Coastal Mapping  
3 Integration Act, I'll call it the IOCM Act.  
4 It's a little easier than the acronym. That  
5 authorization expires next year. So we're  
6 starting to mention to the Hill that we've got  
7 this really good IOCM Act that expires next  
8 year. We look forward to working with you and  
9 would be happy to share some thoughts for what  
10 we see for that program going forward.

11 We had a good briefing with the  
12 House Natural Resources majority staff to make  
13 them more aware of some of the IOCM's success  
14 stories. This is what we've been working with  
15 in the interagency world. This is what we've  
16 been doing within NOAA. We think that we've  
17 got some really good progress to show.

18 I was there and they were  
19 concerned if we're doing enough in terms of  
20 Federal coordination of geospatial activities.  
21 And our story was yes, especially considering  
22 the funding for IOCM program.

1 I think we've made some good  
2 progress. It's not a sprint. It's a  
3 marathon. And that was the message that we  
4 shared with them. But we'll continue to look  
5 at that for next year.

6 Digital Coast Act, you learned  
7 about Digital Coast yesterday. There is an  
8 act that received a lot of support from the  
9 external Digital Coast partners, the National  
10 Association of Counties, the Nature  
11 Conservancy and the other partners. The MAPPS  
12 group pushed it as well on the Hill. They were  
13 involved.

14 They've got a lot of folks aware  
15 and interested in Digital Coast which is  
16 great. It got a lot of support on the Hill.  
17 There was some interest in introducing  
18 legislation. Congressman Ruppertsberger from  
19 Maryland introduced it in the House side. We  
20 had some concerns with that.

21 The Senate side took it up and  
22 Senator Baldwin is reported to be introducing

1 it today in the Senate. And they made some  
2 good changes to it from the House side so that  
3 some of those concerns were relieved.

4 But I see it as a great  
5 integration into the IOCM Act. It's a good  
6 example of IOCM at work. You heard from  
7 Nicki. It's about taking data that are out  
8 there being collected for primary missions and  
9 building it into a repository or providing  
10 access so that those data are -- anyway you  
11 can find the data -- discoverable. Yes, it  
12 sounds so much better. And it provides some  
13 great integrated decision support tools.

14 So that's one where it's a great  
15 example of IOCM at work. I think that we can  
16 work with the Congress next year to maybe  
17 integrate those two pieces of legislation so  
18 that we're working in tandem. We don't have  
19 a Digital Coast Act telling us to do these  
20 sorts of things and then IOCM Act telling us  
21 to do the same sorts of things, but in a  
22 different way. Then it's not really clear how

1 the two work together. So that's been our  
2 focus. Let's make sure that we're moving  
3 forward smartly on both of those efforts.

4 Then the last one I'll just  
5 mention briefly, Map It Once, Use It Many  
6 Times Act. This is something that MAPPS'  
7 organization supports. It would call for  
8 wholesale reorganization of Federal geospatial  
9 activities. Much of NOAA's geospatial however  
10 you define those would move to a new agency in  
11 DOI, as would geospatial activities of USDA  
12 and USGS. They would move to this new entity  
13 within DOI.

14 So it's a concern for us right off  
15 the bat. It has about four committees of  
16 jurisdiction. They did have a hearing in the  
17 House Natural Resources Subcommittee, not the  
18 one that has jurisdiction over NOAA, but a  
19 separate one.

20 But the folks in our subcommittee  
21 were kind of interested in our thoughts on it.  
22 I think they wanted to take a look at that

1 versus IOCM Act and figure out how we're doing  
2 it now and would this be better than what we  
3 have. And our sense was a resounding, "No,  
4 I think we're making good progress." We  
5 haven't seen any more activity on that since  
6 the House hearing.

7           Again, legislation is out there.  
8 Folks are interested in NOAA's programs.  
9 They're just not really pushing anything over  
10 the finish line.

11           We've been up to the Hill a lot.  
12 I've talked about the legislation. We've done  
13 a number of briefings just to make folks on  
14 the Hill more aware of what NOS does and what  
15 the navigation programs in particular do.

16           So just to run through some of  
17 those things in particular. Senator Murkowski  
18 recently after I mentioned the Appropriations  
19 Bill and the report language, his staff was  
20 really interested in getting a briefing on the  
21 hydrographic surveying that we do in Alaska  
22 and the Arctic in particular. Admiral Glang

1 and Jeff Ferguson from Coast Survey went up  
2 there and gave her staff a really good  
3 briefing of these are all the activities which  
4 are actually pretty impressive considering the  
5 funding that we do have for those programs and  
6 diversity of priorities that we have to  
7 balance. Gave a briefing on all the work that  
8 we have up there and that we have planned for  
9 the next year or two.

10 And we gave a similar briefing to  
11 Senator Begich, the staff from Senator  
12 Cantwell, and staff from Senate Commerce  
13 Majority. I think they really appreciate that  
14 information and recognize that NOAA is doing  
15 the best it can in the Arctic with the  
16 resources we have.

17 Senate Commerce Minority, we sent  
18 them a press release on the awarding of  
19 contracts to the eight contract organizations  
20 for hydrographic surveying. This was the five  
21 year contract award that was notified some  
22 time in the summer. They are interested in

1 learning a little bit more about the work that  
2 we do with hydrosurvey -- with private sector  
3 contractors, on hydrographic surveying.

4 So we went up there and talked to  
5 them a little bit about this is the process  
6 that we use in order to evaluate contractors  
7 who apply for those contracts. And this is  
8 how we award those contracts, how we work with  
9 them to award task orders and kind of that  
10 whole soup-to-nuts process.

11 We also provided some  
12 informational briefings to Senate Commerce  
13 Majority, House Natural Resources Majority, as  
14 I mentioned already, and Senator Baldwin on  
15 HSIA, the IOCM Act and Digital Coast Act.  
16 Just to talk a little bit more about what  
17 these authorities do, why they're so important  
18 to NOAA. Digital Coast Act is kind of a  
19 newbie in there, so thinking a little bit  
20 about the things that I have already mentioned  
21 in terms of integrating those together. And  
22 then the House Natural Resources briefing that

1 I mentioned already.

2                   These are Holly and Russell  
3 briefings I want to talk about. All the other  
4 ones were me going up there with Admiral Glang  
5 or other staff from Coast Survey, for example.  
6 So these are some briefings that Holly and  
7 Russell have done. There's a Senate Oceans  
8 Caucus that was really interested in our Ocean  
9 and Coastal Observing programs and where those  
10 are now and where we see them going in the  
11 future. Holly gave them a really good  
12 presentation to that Oceans Caucus staff on  
13 that issue.

14                   And then my office has gotten  
15 Holly and Russell up to the Hill a few times  
16 over the year. We reserve a chunk of time on  
17 their calendars. Then we go through an effort  
18 to identify some of the members of Congress  
19 that we think we can really build a  
20 relationship with and can be champions for  
21 NOS. So we've made an effort to get up to the  
22 Hill and visit with some of these key members.

1                   I threw some of those on there. I  
2 think there are more. But these are some of  
3 the big hitters. You can see them there.  
4 They're all coastal districts, coastal states.  
5 They tend to be key members because they're  
6 either on our Authorization Committee or  
7 they're an appropriater.

8                   For all these briefings the format  
9 that we tend to go with, Holly and Russell  
10 wanted to go up there with their priorities.  
11 We have coastal intelligence, coastal  
12 resilience, place-based conservative and talk  
13 to them about these priorities and the work  
14 that NOAA does in support of those priorities.  
15 And that's the main focus.

16                   But in doing so, they bring up a  
17 short list of activities in the district or  
18 the state that they want the member to be  
19 aware of that helps tell that story. Within  
20 my office, we really put a big effort into  
21 providing some of those stories.

22                   With Congresswoman Bonamici from

1 Oregon, for example, who is the Ranking Member  
2 of the House Science Subcommittee, we sent her  
3 up there with some information about the  
4 Columbia River PORTS system and how that  
5 system really works well with the local  
6 stakeholders to provide high efficiency of  
7 cargo loading. And the same for Senator  
8 Booker.

9           There is a recurring theme. A lot  
10 of these places tend to have a port. So we  
11 went through the effort to develop a one-pager  
12 that's kind of standard template on the front  
13 page. And on the back side we can customize  
14 it to show them the individual systems.

15           It's got a map of all the  
16 different stations and sensors. It's got some  
17 data plots to show you what you saw from  
18 Captain Cameron yesterday, what water levels  
19 are actually doing versus the predictions.  
20 And in instances where that's high, that means  
21 you've got more draft than you expected. So  
22 maybe you could load a little more cargo.

1 When it's low, you've got to be careful you  
2 don't hit the bottom.

3 Air gap data, the story there is  
4 obvious. So we try to bring some of that data  
5 up to the Hill to say, "This is what's  
6 actually existing in your state and your  
7 district and this is how your stakeholders are  
8 using it in order to support maritime commerce  
9 in the state and in the region." I think it's  
10 a really powerful message.

11 We've talked about chart updates,  
12 hydro surveys, shoreline mapping work, any of  
13 the activities that you can think within these  
14 programs. We go up there and try to tell  
15 those stories.

16 And then October 9th, Holly and  
17 the Director of the National Weather Service,  
18 Louis Uccellini, will be going up to meet with  
19 staff from the Congressional Ports Caucus and  
20 any other staff we can manage to round up to  
21 sit in on that briefing. I think PORTS stands  
22 for Ports Opportunities Renewing Trade and

1 Security or something like that. They swiped  
2 the trademark from CO-OPS.

3 PARTICIPANT: We still have the  
4 trademark.

5 DR. BRADLEY: Stomping over the  
6 trademark. Yes, we're going to sue him for  
7 it. Fund PORTS. So we're meeting with those  
8 staff.

9 It's a great opportunity to reach  
10 out to a whole new crosscut of Congressional  
11 offices. There are a lot of members that are  
12 on that Congressional PORTS Caucus that I  
13 think they have about 80 members in total.

14 And we haven't had a chance to  
15 talk to them yet. Some of them might be the  
16 same as the ones you see here. But there are  
17 a lot of new faces there, too. So it's a  
18 great opportunity. They're going to be  
19 talking very briefly about the program's  
20 products and services that NOS and The Weather  
21 Service provide in support of maritime  
22 commerce. A lot of the things you know about,

1 the storm search work that we're doing with  
2 Weather Service, the weather forecast. They  
3 provide things like that.

4 My ask to you guys is I'd  
5 appreciate your thoughts on this. We're  
6 trying to find ways to make that presentation  
7 really engaging. You all know and are  
8 familiar with death by PowerPoint. I'm  
9 subjecting you to it here.

10 We're thinking of ways of how can  
11 we get Holly and Louie to really make that an  
12 engaging and interesting presentation. Not a  
13 question for you right now, but think about it  
14 and get back to me on email over the next week  
15 or so and if you have any ideas of this is  
16 what's really exciting.

17 We love it when you can present  
18 this type of data in this format. So we're  
19 thinking a little bit about do we bring in  
20 pilots. Do we present quotes from pilots  
21 about how they use NOAA's products and  
22 services? Do we do a little video blurbs or

1 hands-on things? How can we make that more  
2 engaging for the staff?

3 I'll just run really quickly  
4 through these last couple of mentions. FEMA  
5 pre-scripted mission assignments, we talked  
6 about that. Back in the spring, we submitted  
7 a request for six or seven pre-scripted  
8 mission assignments to FEMA.

9 The initial response had a couple  
10 of those moving forward. The final response  
11 which came about a month ago denied five of  
12 those six pre-scripted requests. As Mike  
13 pointed out, the one exception to that was the  
14 coastal advisor, coastal advisor on response,  
15 coastal advisor on recovery. That's different  
16 from a navigation manager. That's more  
17 thinking about coastal resource management  
18 issues. That's the one that's moving forward.

19 We're still working with them as  
20 Russell mentioned. We're still working with  
21 them to try to resolve this and have a  
22 discussion about this.

1                   Within the Hydrographic Services  
2           Improvement Act there's authority for NOAA to  
3           do a lot of these response activities. But it  
4           also has authority in there for us to obtain  
5           mission assignments. So we want to have the  
6           lawyers talk about that and figure out what  
7           does the mean. Does that mean we're still in  
8           the running for some of these mission  
9           assignments or not?

10                   So that's still ongoing. We'll  
11           see what happens. Their response as I  
12           mentioned was if you have the authority to do  
13           the work then you don't need a mission  
14           assignment. We're not going to issue a  
15           mission assignment. It's your responsibility  
16           to get out there and do the work. So that was  
17           the response. And we'll see how it plays out.

18                   The Committee on Marine  
19           Transportation System, Holly is the Department  
20           of Commerce representative to its working body  
21           which is the Coordinating Board. It meets  
22           every three to four months. We get some

1 things done, but there's a lot of room for  
2 bigger, higher priority discussion. We get  
3 some working staff level projects and  
4 interagency efforts in place that are good  
5 efforts, good government sort of things. But  
6 there's a lot of room for bigger picture  
7 discussion.

8 We're working to get the  
9 principles of that CMTS -- that's the Cabinet  
10 level body. It's the Secretary of Commerce,  
11 the Secretary of the Army, really big picture  
12 guys. The Secretary of Transportation is the  
13 chair.

14 We're trying to get that meeting  
15 set up for the middle of October. It will be  
16 the first time they meet in six years. Kind  
17 of a big deal.

18 And we're trying to tee up some of  
19 those big picture issues. A lot of the big  
20 things you hear about here, port and harbor  
21 expansion, resilience, coastal resilience.  
22 We're pushing hard to make sure that's in

1       there.

2                   Department of Commerce obviously  
3       is big on the Natural Export Initiative.  
4       That's another one we're pushing.  
5       Infrastructure investment. So those are some  
6       of the big national issues that we want to try  
7       to get these Cabinet level officials in the  
8       same room to talk about. It's a big issue for  
9       us.

10                   And then lastly we're working with  
11       Army Corps and the National Academy of Science  
12       Marine Board to develop a resilience workshop  
13       that's going to help the Army Corps and NOAA  
14       really -- it's something that we've been  
15       interested in doing -- to develop some  
16       resilience metrics. How do communities, port  
17       communities, yes, but adjacent coastal  
18       communities evaluate their resilience? How  
19       well are they doing? Not really a report  
20       card, but some kind of performance measure of  
21       resilience.

22                   We're looking at doing a workshop

1 with the Corps down in Mobile sometime early  
2 spring next year to bring in a lot of  
3 stakeholders and have a conversation about  
4 that and start to really put some ideas on the  
5 table with how that would actually work. And  
6 then bring it back to the Marine Board and get  
7 their input as to this is what we heard, this  
8 is what we're thinking, what do you guys think  
9 and push that down the road a bit.

10 I think that was it. So my wife's  
11 been a trooper the last couple of days dealing  
12 with this hell-raiser. And so I conclude with  
13 that. I appreciate her holding out.  
14 Hopefully gave her a better night last night.

15 I don't know if I have time for  
16 questions, but I'm happy to take them.

17 CHAIR PERKINS: Frank.

18 MEMBER KUDRNA: A comment and two  
19 questions. Over the years, we worked hard to  
20 have NOAA use the expression "Ocean and Great  
21 Lakes" because it implies -- ocean implies to  
22 a lot of people that the Great Lakes are

1 included. And I encourage you to do that more  
2 and bring that back.

3 It's noticeable that you didn't  
4 have any Great Lakes representative on the  
5 list of contacts there. And Senator Kirk from  
6 Illinois is really an advocate for the Lakes  
7 and a Republican. And he'd be a great party  
8 to add to your visits along the way. You'd  
9 better mention Great Lakes along the way to do  
10 that.

11 But the two questions. One,  
12 concerning reauthorization, we had the  
13 discussion of how the Sea Grant FACA Committee  
14 provides a report back to Congress. And the  
15 discussion was that would be a really good  
16 idea to include something like that for HSRP  
17 in a reauthorization to have such a vehicle.

18 What would you suggest as a way of  
19 doing that? Would that be a logical  
20 recommendation for us to carry forward to the  
21 administrator to have NOAA include that in  
22 recommendations? Or what would you suggest?

1 DR. BRADLEY: I don't know. If I  
2 gave the impression that I thought it was a  
3 really great idea then I misspoke. I haven't  
4 thought about it enough to have an opinion  
5 whether it's a really good idea.

6 If it was my idea, then I think  
7 it's fantastic. But I think it's certainly  
8 something that the panel should consider. And  
9 I don't think that something like the most  
10 wanted report, just using an example that's  
11 already out there that this body has put  
12 together, would be the right approach.

13 As you all have pointed out,  
14 that's kind of a pie in the sky wish list.  
15 These are all the things that we'd love to get  
16 funding for. It has to be something a little  
17 more realistic, a little bit more this is  
18 what's actually out there.

19 I'd have to put some thought into  
20 what the content of that would look like. And  
21 obviously it can't be something that's  
22 terribly burdensome on the committee to put

1 together. It would require significant effort  
2 on your part.

3 I know those most wanted reports  
4 took a lot of effort and batting around  
5 between folks and a lot of effort on the NOAA  
6 side, too. So it really has to be something  
7 that's going to serve the agency well in  
8 addition to informing Congress.

9 I think that's probably, like  
10 you've mentioned in other moments, Frank, that  
11 informing Congress really is kind of the goal.  
12 This is what the programs are doing.

13 We have a number of other reports  
14 out there like we have two IOCM reports that  
15 go to the Hill. So we have other ways that we  
16 do communicate Congress.

17 And the early returns on those is  
18 that no one on the Hill seems to pay a lot of  
19 attention to them unfortunately. That's where  
20 I'd want to be real careful with what are we  
21 providing and how are we going to make sure  
22 that they pay attention to it.

1                   MEMBER KUDRNA: But I think Scott  
2 mentioned being on the Hill and concern  
3 expressed during our early session. I think  
4 that might be a way to respond.

5                   My second question, your numbers  
6 were very interesting where you talked about  
7 the large bump in mapping funding. I think  
8 nine or ten that occurred. And that  
9 coincidentally is in the time range of that  
10 most wanted report.

11                   Do you think there's a  
12 relationship between that report and I think  
13 on your early slide you talked about a fairly  
14 dramatic increase in the mapping element of  
15 the NOS funding?

16                   DR. BRADLEY: I don't think there  
17 were -- Are you talking about the increase  
18 here between --

19                   MEMBER KUDRNA: No, I'm talking  
20 about in the particular line item for mapping  
21 revisions. And on this slide you didn't show  
22 the number. But you described how it took a

1 20 percent bump or something very significant  
2 in the nine or ten area.

3 CHAIR PERKINS: Yes, from the 2008  
4 levels.

5 DR. BRADLEY: Right, so it  
6 decreased from 2010 to 2013, 2014, 2015. It's  
7 all kind of the same from there, 20 percent.  
8 So it went down 20 percent.

9 CHAIR PERKINS: Right. So I guess  
10 the question if I may, Frank, is can we draw  
11 a correlation that the most wanted report help  
12 drive that number up from 2000 to 2006?

13 DR. BRADLEY: Oh, I see what  
14 you're saying. I don't think it went up from  
15 2000. It kind of stayed around the \$31-\$32  
16 million mark up until 2010 where it started to  
17 drop off. I think looking back and I don't  
18 know how far back I could really think of the  
19 numbers, but I think it was mostly around the  
20 \$31-\$32. So I'm not sure we ever had upward  
21 trend on that. It's mostly been kind of --

22 CHAIR PERKINS: I don't know if

1 this is accurate, Frank, but I can draw the  
2 observation that about the time the Ferdinand  
3 Hassler got funded is about the time that the  
4 money for the hydro survey backlog changed.  
5 Are those two related or not in how Congress  
6 treated funding?

7 RDML GLANG: No, they're not  
8 related.

9 CHAIR PERKINS: That's not  
10 related?

11 RDML GLANG: No.

12 DR. BRADLEY: I don't think that  
13 I'd agree. I think there were some tough  
14 years between 2010 and 2014 where either  
15 Congress or the Administration had to make  
16 some cuts. And maybe just being called  
17 address survey backlog, I recall a comment  
18 from then Lieutenant Governor Schatz in Hawaii  
19 and now Senator Schatz who said if Congress  
20 doesn't know what a line is, then they're not  
21 going to support funding for it.

22 I think the name change from

1 Address Survey Backlog to Hydro Survey  
2 Priorities was probably a smart one. And I  
3 don't know that that necessarily means that  
4 we're going to have an increase. But at least  
5 it helps Congress identify that maybe the word  
6 priority is magic somehow in a budget. Who  
7 knows.

8 That will hopefully help avoid any  
9 similar instances where it takes a hit because  
10 it's maybe seen as a pot of money that goes  
11 outside the organization and isn't critical to  
12 its fundamental authorities and missions which  
13 I would disagree with. Juliana.

14 MEMBER BLACKWELL: Paul, this is  
15 Juliana. Contrary to that, you did mention  
16 that the IOOS Regional Observations did get a  
17 plus up or an increase.

18 DR. BRADLEY: Yes.

19 MEMBER BLACKWELL: Can you share  
20 any of your thoughts as to what you think  
21 maybe made that possible?

22 DR. BRADLEY: Yes. The big

1 difference there that I would note and I think  
2 this speaks a little bit to Scott's point is  
3 IOOS has a really strong external body, the  
4 IOOS Association which used to be called the  
5 National Federal of Regional Associations that  
6 advocates for IOOS regions. There are 11 of  
7 them. There's another body called the  
8 Alliance for Coastal Technologies that does  
9 sensor testing and validation.

10 And so that body is really active  
11 on the Hill with OMB, with NOAA, with the  
12 Department. They put a big effort into making  
13 sure that people realize these regional  
14 associations are out there and the work that  
15 they do. To be honest with you, we don't have  
16 that for the Navigation Services part of this  
17 NOS budget.

18 CHAIR PERKINS: Joyce.

19 MEMBER MILLER: You talked about  
20 the IOCM Act and the Digital Coast Act  
21 possibly mergering which makes a lot of sense  
22 to me. But is there any chance on either of

1       them? I mean is there any horizon of funding  
2       for either of them?

3                   DR. BRADLEY: The funding aspect  
4       is an interesting one for Digital Coast. The  
5       MAPPS' involvement in Digital Coast Act was a  
6       bit of a sticky point for the Hill because in  
7       the House version of that bill it included an  
8       authorization of appropriations of \$80 million  
9       to collect data because that's a component of  
10      Digital Coast Act is that it identifies that  
11      a set of coastal data that are priority for  
12      the program. So it authorizes \$80 million to  
13      go out and collect those data.

14                   There's no chance they would ever  
15      see, NOAA would ever see 80 million new  
16      dollars to do data collection. And that was  
17      a problem for the Senate. So the external  
18      partners have to back away from that issue and  
19      be willing to come take that off the table.

20                   Is there a chance that we could  
21      see funding for that or for IOCM? I'm sure  
22      there's always a chance. Digital Coast Act

1 did get a pretty -- we've got a lot of  
2 interest. When it comes to actually writing  
3 a bill and introducing a bill, Senator Baldwin  
4 took the pen and ran with it, from Wisconsin.  
5 And there are other members, too, and  
6 committee staff that were interested in that.  
7 So if you get a certain amount of political  
8 will, then anything is a possibility.

9 But I have a hard time seeing any  
10 new money for those activities. I think it's  
11 going to continue to be out of the thing. I  
12 mean we have money for Digital Coast, but in  
13 terms of new dollars for that or IOCM, it's  
14 going to be an uphill battle because it's got  
15 to come from somewhere.

16 I mean obviously the bottom line  
17 is not increasing by a whole lot. So it's got  
18 to come from somewhere. And NOAA wants to be  
19 very careful that we're not robbing Peter to  
20 pay Paul.

21 CHAIR PERKINS: Great. Last  
22 question.

1                   MEMBER SHINGLEDECKER: This one  
2                   may be specific and maybe we need to move it  
3                   to our later discussion. And from New York  
4                   when we made the recommendation about going  
5                   after pre-scripted mission assignments, I  
6                   believe the intent with that recommendation  
7                   was to improve the efficiency through which  
8                   NOAA resources could be accessed in an  
9                   emergency situation through the ICS structure.

10                   It seems like that has kind of by  
11                   FEMA been put aside. From NOAA's perspective,  
12                   do you guys still feel strongly that that's  
13                   something that's needed? I mean they're  
14                   saying you're already authorized to do that  
15                   work. Go do it.

16                   But I believe we made the  
17                   recommendation because we felt that maybe it  
18                   could be done more efficiently if you had that  
19                   prescriptive mission assignment. Do we need  
20                   to keep pushing on that or do we just say  
21                   "FEMA, okay. We'll wait"?

22                   RDML GLANG: I think it's clear

1 that NOS is going to keep pushing on this. I  
2 think that's what Paul described yesterday.

3 MEMBER SHINGLEDECKER: Do you want  
4 us to keep pushing on it?

5 CHAIR PERKINS: Would it be  
6 beneficial for us to speak to that topic again  
7 to the administrator?

8 DR. BRADLEY: I think Dr. Sullivan  
9 is aware of the issue. When we got the notice  
10 from FEMA on August 22nd or so, Holly sent a  
11 heads-up to Dr. Sullivan because she was  
12 meeting with the FEMA administrator either  
13 that week or the week after. She's aware of  
14 the issue.

15 I think she's aware that NOS is  
16 continuing to push it at a high level. Holly  
17 has met with the No. 2 from FEMA and has  
18 expressed to him this disappointment that not  
19 just the response itself but that we didn't  
20 have an opportunity to really have a dialogue  
21 between the legal counsel into whether we  
22 think the mission assignment is warranted or

1 not.

2           There is definitely some  
3 continuing efforts at a high level. And I  
4 think mentioning that in a letter will  
5 recognize that the HSRP is keeping an eye on  
6 this and is interested in the outcome. But we  
7 can't do any more than what we're already  
8 doing.

9           RDML GLANG: Let me just add this  
10 to answer your question, Susan. I think that  
11 if NOAA having prescribed mission assignments  
12 with FEMA helps add flexibility so that we can  
13 bring resources to bear for national response  
14 effort, then that's a useful thing.

15           DR. BRADLEY: I started ten  
16 minutes early and I'm ending ten minutes late.  
17 That's good efficiency.

18           (Laughter.)

19           Thank you very much.

20           CHAIR PERKINS: Thank you, Paul.

21           (Applause.)

22           CHAIR PERKINS: Next on the agenda

1 is our briefings from the triservice offices.  
2 How is everyone doing? Do we need a short  
3 break? Everybody is okay.

4 MEMBER ARMSTRONG: If I can just  
5 make one comment to the Chairman. We do have  
6 to check out by 12:30 p.m. Some of us may  
7 want to somewhere in the schedule between now  
8 and 12:30 p.m. want to have a chance to run up  
9 to our rooms and grab our bags.

10 CHAIR PERKINS: Okay. How about  
11 if we do that at the conclusion of the  
12 triservice office updates? We'll take an  
13 unscheduled break for the hotel logistics.

14 MEMBER ARMSTRONG: Thank you.

15 CHAIR PERKINS: Is that okay with  
16 everybody? Great. Triservice Office updates  
17 and, Admiral, you're first because you're the  
18 most important.

19 NOAA NAVIGATION SERVICES OFFICE UPDATES

20 RDML GLANG: All right. Good  
21 morning. I'm Gary Glang. I'm the Director of  
22 Coast Survey and the Designated Federal

1 Official for this panel.

2 The panel asked us to report out  
3 on them. They provided some guiding  
4 questions. They wanted to hear how the -- I'm  
5 paraphrasing here. I don't have the words in  
6 front of me. They wanted to hear from the  
7 programs who we do our outreach with, how we  
8 reach our stakeholders and our users.

9 What I've constructed is a  
10 presentation to describe to you what I view as  
11 my priorities and how we've changed our  
12 thinking and how we've made progress in our  
13 roadmap that we've developed internally. In  
14 how we changed our thinking, I sort of sliced  
15 into our different sectors to describe to you  
16 who we're listening to and what we're hearing  
17 and seeing from those folks.

18 Last year, I asked our folks to --  
19 we've been doing these strategic retreats for  
20 several years now and we've come up with very  
21 big and complicated strategic plans. Last  
22 year, I basically said, "Look. I've got four

1 priorities for Coast Survey for our  
2 organization."

3 And the first is we must transform  
4 our charting. And the second is we need to  
5 innovate how we collect our data, where it  
6 comes from and what those sources are. The  
7 third is we're going to change navigation.  
8 We're going to change the experience that  
9 users have of how they use our charts and how  
10 they navigate. And the fourth is we have a  
11 unique value proposition in Coast Survey and  
12 that is our expertise. There is no other  
13 national program that does what we do from end  
14 to end.

15 So transform charting is about  
16 improving our internal processes and our  
17 infrastructure and our organizational  
18 structure so we get our charts out more timely  
19 and with a better quality on them. And we're  
20 also working very hard to provide our product  
21 in multiple convenient formats. That's what  
22 transform charting is all about. It's been

1           probably the most significant amount of effort  
2           that's gone into that priority right there.

3                       The second one has to do with  
4           innovating hydrography. We talked yesterday  
5           about different technologies that can be  
6           brought to bear. We talked about crowd  
7           sourcing. We also looked at satellite  
8           bathymetry. We also have some advanced  
9           research projects underway that look at x-  
10          band, marine band radar for extracting  
11          bathymetry.

12                      All these other sources don't  
13          necessarily lead you to get data that can be  
14          put on the chart. But they certainly do help  
15          inform where your chart needs more work or  
16          where there are certain hazards that could be  
17          brought through.

18                      Changing navigation, this is about  
19          us leading the future of navigation and  
20          changing the experience. And we do that both  
21          here at home, and I'll have some examples of  
22          that here in the United States, but also

1 internationally.

2 A significant part of my personal  
3 portfolio is I serve as the U.S. National  
4 Hydrographer. And I interact with the  
5 International Hydrographic Office through the  
6 several bodies underneath that. There's a  
7 long list of working groups that our program  
8 supports. And many of those are involved in  
9 developing new standards for electronic  
10 charting systems in particular.

11 And the fourth I mentioned is our  
12 expertise. So our hydrographers and our  
13 cartographers are a unique workforce. They  
14 have a unique skill set. It's acquired in a  
15 unique way. And you'd be very hard pressed to  
16 reproduce that elsewhere and still have a  
17 skill set that can build charts from end to  
18 end.

19 In the international definition,  
20 hydrography really is the whole thing. It's  
21 everything from collecting the data all the  
22 way through building the products and

1 delivering them.

2 The leading question from the  
3 panel was that they wanted to understand how  
4 we interact with our stakeholders. We've been  
5 doing for the last several years a deliberate  
6 effort to go and reach our customers and  
7 understand how they use our products, what  
8 kinds of decisions do they need to make and do  
9 they have the right tools, the right NOAA  
10 navigation products, to do that.

11 Actually, I've been on the road  
12 quite a bit. I've been to San Diego. I've  
13 been to Seattle, Tacoma. I was in New  
14 Orleans. So I'm certainly making an effort to  
15 get out and go meet with locals. And we'll  
16 have some more discussions on that.

17 What I wanted to describe to you  
18 was how do we view our customers, our  
19 stakeholders, our users. And we broadly bin  
20 them into six categories. We have the  
21 traditional, SOLAS class. These are the big  
22 deep draft guys who have to comply with the

1 International Maritime Organization. They  
2 have to have a certain kind of navigation  
3 system on the bridge of their ship.

4 These are the guys where ECDIS,  
5 the Electronic Chart Display Information  
6 System, started to come into force. So they  
7 have to go electronic here and transition in  
8 the next several years.

9 We separate out the pilots who  
10 although they operate on solar ships. The  
11 pilots really use our navigation information  
12 in a different way. Frankly, they only use  
13 our paper chart for reference.

14 They're not walking up or climbing  
15 up the Jacob's ladder with a chart rolled up  
16 under their arm. They've got some kind of an  
17 electronic device or you still see several  
18 pilot organizations where the pilots rely on  
19 the more traditional.

20 They've been in and out of that  
21 waterway. They've passed their license. They  
22 know that body of water by memory. And they

1 don't use any kind of additional tool.

2 And then we separate out  
3 government and military because they are a  
4 different creature and we serve them in  
5 different ways. And it did take some focused  
6 effort to make sure that we're delivering what  
7 they think they need.

8 We separate out the recreational  
9 users. The commercial I include in that the  
10 fishing vessels and the tug and towing  
11 industry. They have some different  
12 requirements.

13 And then certainly in the last ten  
14 years we've recognized that there is a very  
15 heavy demand for aeronautical charting  
16 information by non-navigation users in the GIS  
17 context. So we've also worked hard to address  
18 their needs and make sure our products deliver  
19 them.

20 What this slide shows, I call it  
21 the Cloud Slide. It's really our value chain.  
22 I'm going from the top down. Traditionally,

1 we don't interact with those end users. And  
2 that's what you all have done here by going  
3 over to the port.

4 But our charts, our navigation  
5 information, is not being used by those end  
6 users in paper form. They're actually using  
7 a product that gets our charts to them in a  
8 different way.

9 And that's all in our value chain.  
10 So you've got the Furunos with their chart  
11 systems, the electronic chart systems, the  
12 ECDIS. And then there's a whole variety of  
13 other users who use our chart information in  
14 different ways to provide end users a  
15 different experience for them to make  
16 decisions.

17 Increasingly, we recognize that  
18 that's where we need to be going to talk. But  
19 that's a huge ecosystem out there of many,  
20 many different companies and software  
21 developers that operate in different ways. So  
22 I have some examples on that.

1                   At the bottom, that square box,  
2                   that's really where we sit. So we've  
3                   envisioned that our data, pulled out of a  
4                   database, has to be formatted and distributed  
5                   in particular ways. And I'm showing five of  
6                   those here.

7                   RNCs are the traditional Raster  
8                   Nautical Charts that are available for free  
9                   download. Then we've got the Electronic  
10                  Navigation Charts, the ENC's, that fuel the  
11                  ECDIS. That's the vector-based product.

12                 So the Raster and the vector-based  
13                 product are two different things and will give  
14                 you two different experiences. But they both  
15                 can serve the same purpose.

16                 We have our print on demand  
17                 product which we've significantly changed.  
18                 We've got the PDF portable document format  
19                 charts that are available for free and come in  
20                 a couple of flavors. Then more and more we're  
21                 putting our data through web services so that  
22                 other users, both in the navigation and non-

1 navigation communities, can grab that data.

2 I've broken the next few slides to  
3 show you in those different sectors, those  
4 different market sectors, to give you some  
5 examples of how we interact with those folks.

6 The SOLAS guys, the deep draft  
7 vessels who typically have to sail with ECDIS  
8 systems, we've brought in professional  
9 mariners, sat them down in front of ECDIS  
10 system and said, "Okay. Take us through the  
11 process of when you make arrive into, in this  
12 case, Port of Los Angeles and Long Beach." We  
13 had them take us into Cherry Point and we went  
14 into San Francisco.

15 We just sat there and watched what  
16 they experienced with our ENCs. And we had a  
17 group of our cartographers on our side and  
18 they got to interact with professional  
19 mariners. And this was the captain and the  
20 first mate in the one case from Alaska Tanker  
21 Company.

22 They bring in a 1,200 foot crew

1 carrier from Alaska into Long Beach. They had  
2 some real experience in using our charts. And  
3 there are a lot of things that mariners don't  
4 know about our charts that are frankly stupid.

5 So our conclusion, our takeaway,  
6 was that in a lot of case our ENC's are really  
7 not that well suited for ECDIS. But our ENC's  
8 are fully encoded to meet standards. They are  
9 correct. But it's the information content.

10 And it turns out that the way  
11 people use our chart has really changed. And  
12 the information content that they need to make  
13 decisions isn't rich enough.

14 Yesterday we had some great  
15 presentations and the day before about the  
16 size of the ships. And I'll get into that a  
17 little bit more. But what we're envisioning  
18 is sort of a focused effort to improve the  
19 content of the ENC's in ports and harbors.

20 There's an ENC 2.0 we're calling  
21 it. But the ENC 1.5 version if you will is  
22 really about looking at our ENC suite in a

1 holistic sense. As you travel from cell to  
2 cell, ENC's are divided into cells and not  
3 individual charts, to really improve the  
4 quality of those transitions.

5 We know we need additional depth  
6 areas. We hear that firsthand. I was in Ft.  
7 Lauderdale last year with the visiting cruise  
8 line companies. And they were complaining  
9 that our charts were broken when they came in.  
10 They couldn't get the 10 meter contour to turn  
11 on.

12 The ENC was built from the paper  
13 nautical chart. The U.S. paper nautical chart  
14 when you come into Ft. Lauderdale does not  
15 have a 10 meter contour. So here's an  
16 understanding that the mariner has that isn't  
17 quite right. And yet clearly they have a  
18 requirement.

19 Those cruise ships draw 9.3 meters  
20 I think when they come in. And they want the  
21 10 meter safety contour. We should be able to  
22 offer them that.

1                   The way the ENC's are encoded, a  
2                   lot of dangers show up in this really large  
3                   red X. And it's a symbology that meets the  
4                   standard, but we can probably improve that  
5                   because it's not constructed to keeping  
6                   situational awareness on the chart.

7                   We had a problem for a while where  
8                   in our production system where we essentially  
9                   had four different production systems,  
10                  production lines, in parallel to produce our  
11                  charts; the Raster and the vector product were  
12                  not synchronized closely enough. So we worked  
13                  very hard in the last two years to fix that.  
14                  And it is fixed now.

15                  And then we also hear from the  
16                  cruise line industry that they have trouble  
17                  getting NGA charts at certain ports of call.  
18                  And so we worked hard through our colleagues  
19                  at NGA and with the international community to  
20                  try and resolve that. That's very slow going.  
21                  In most cases, that involves actually getting  
22                  the country that has the charting authority to

1 build new ENC's. We've got a couple of small  
2 cases of success. But we know there are quite  
3 a few ports that aren't adequately charted for  
4 the cruise industry to meet the ECDIS mandate.

5 Pilots. I mentioned this was a  
6 special case. They really don't use our paper  
7 nautical charts. We interact with them  
8 through our navigation managers at the  
9 Regional Harbor Safety Committee meetings or  
10 the Area Maritime Safety Committee or they've  
11 got different acronyms but essentially serve  
12 similar purposes.

13 Our navigation response teams when  
14 they're in a region will work with the pilots  
15 on emergent survey issues. And we certainly  
16 visit with the pilots. As I've mentioned,  
17 I've gone to different ports and I always  
18 visit the pilots and spend time with them.

19 We have made a deliberate effort  
20 to interact more with the pilots through the  
21 different American Pilots Association venues  
22 and have established a good relationship

1           there. I think NOAA signed an MOA with the  
2           APA two years ago, three years ago, Rachel.

3                       MS. MEDLEY: Two years ago.

4                       RDML GLANG: So what are we  
5           hearing and also seeing from the pilots? I  
6           mentioned this once and we've talked about it  
7           yesterday. There is clearly a difference  
8           between the precise navigation that they have  
9           to do when they're coming into ports where  
10          meters and feet count versus coastal  
11          navigation where miles are really sort of the  
12          envelope that you're operating in.

13                      So the ships are getting larger  
14          and essentially the sea rim is getting smaller  
15          in ports. They really need better decision  
16          support tools.

17                      What is it that they use? These  
18          portable pilot units in many cases that they  
19          do use whether they're Pilot Mate, whether  
20          they're Raven Software, several other firms  
21          out there in commercial software that they  
22          use.

1                   Those software packages don't use  
2                   the full range of NOAA data. And we have  
3                   examples where pilot organization are already  
4                   starting to develop improvements to those  
5                   through those software vendors to bring in,  
6                   for instance, PORTS data through AIS and  
7                   similar things.

8                   We want to make a more deliberate  
9                   effort to get into that ecosystem and  
10                  understand all the vendors and build a  
11                  relationship with them so that we can offer  
12                  them awareness and improvements in the product  
13                  that they deliver to help support the pilot's  
14                  decision making.

15                  And then the other thing that we  
16                  learned and it's not just the pilots who tell  
17                  us this is that lots of NOAA data is out on  
18                  different websites. But it's not necessarily  
19                  available or put together in a context where  
20                  it's useful for their particular kind of a  
21                  decision.

22                  Government and military sector.

1 We interact with these folks a lot more than  
2 I can ever remember. The picture on the right  
3 is our new Chief of the Marine Chart Division,  
4 John Nyberg. On the left is Captain Mark  
5 Eckert; he's the Deputy Hydrographer for the  
6 Navy.

7 We have a monthly phone call, a  
8 monthly teleconference, that lasts about two  
9 and a half to three hours with NGA and Navy  
10 and NOAA. We're reviewing our international  
11 issues as well as coordinating on interagency  
12 issues.

13 And these are monthly meetings.  
14 We rarely miss one. And we spend a lot of  
15 time and energy in these relationships.

16 Our managers are also involved  
17 with through NGA the Allied Maritime Subgroup  
18 which is component under the Five Eyes, the  
19 five allied nations. We're also supporting  
20 NGA. They've set an advisory group that was  
21 an outcome of their assessment of the  
22 circumstances that led to grounding of the USS

1 Guardian. And this advisory group is going to  
2 help transition the military to all electronic  
3 navigation.

4 And, of course, you know that our  
5 navigation managers are involved with the  
6 Coast Guard on different levels, but in  
7 particular at their Maritime Transportation  
8 System Response Units and their Incident  
9 Command Centers when we've got circumstances  
10 there.

11 Military transition away from  
12 paper charts is years. It's going to be a  
13 long time coming. And this is why we treat  
14 them in a special category.

15 Hopefully, you all recall that we  
16 ended production of paper lithographic charts.  
17 The military was our largest consumer. So  
18 they chose to solve their problem by going to  
19 DLA. So we've been engaged at the technical  
20 level extensively with NGA and DLA to make  
21 sure that we deliver a product that DLA can  
22 then reproduce.

1                   And many of the NGA charts of  
2                   foreign waters are being withdrawn. And this  
3                   has to do with NGA's bilateral agreements with  
4                   those other countries. And then those that  
5                   are available are not being updated.

6                   This matters because it's our  
7                   print on demand chart printing agents that are  
8                   also wanting to provide NGA charts. So we're  
9                   in that relationship for better or for worse.  
10                  So we're finding we have to manage the  
11                  expectations more and more because NGA does  
12                  not spend a lot of time interfacing with the  
13                  public.

14                  Recreational boaters. So this is  
15                  another sector that we spend a whole lot more  
16                  time on in the last year and a half certainly.  
17                  And we reach them and we reach all our  
18                  customers to the extent they participate  
19                  through a once-every-two-years customer  
20                  satisfaction survey. And we've got that  
21                  scheduled for a separate information briefing  
22                  in the near future.

1                   We got to the Boat Shows. We go  
2                   to the Recreational Association meetings. We  
3                   interact with the power squadrons and the  
4                   Coast Guard Auxiliary. We just signed new  
5                   agreements with the power squadrons and the  
6                   auxiliary. The power squadrons we've had a  
7                   relationship with for over 50 years now.

8                   I mentioned that we're now also  
9                   listening through an arrangement with  
10                  ActiveCaptain. We're paying attention to  
11                  their navigation hazard reports and we use  
12                  that as information source for improving our  
13                  charts.

14                  And then last year we went through  
15                  two separate Federal Register Notice processes  
16                  to get comments from the public. The one  
17                  topic had to do with the Magenta Line. And  
18                  the other one had to do with transitioning  
19                  away from litho charts.

20                  The takeaway here is that we hear  
21                  and what we see, of course. There are more  
22                  and more folks using apps and we've certainly

1 heard that and seen that from the pilots  
2 whether they're on their tablets or their  
3 smartphones.

4 Last year we did have a beta  
5 version of an app which was really to  
6 understand if people would be interested in  
7 using a digital coast pilot. But the  
8 programmer who built it did a tremendous job  
9 of linking the coast pilot with the chart.  
10 You could jump back and forth and look at the  
11 coast pilot in context. It was really a good  
12 app as far as navigation apps go.

13 However, I don't want to be in the  
14 app business. There's that whole cloud  
15 ecosystem out there. So we ended that,  
16 collected some information. And that's  
17 informed how we're going to move ahead on  
18 this.

19 Boaters are looking for more tide  
20 and current info. They don't like vector  
21 charts generally as a rule. They want the  
22 Raster charts which if you think about our

1 product evolution we're still going to have to  
2 maintain a Raster product line because it's  
3 still being used. It's a preferred product  
4 for many of these customers in the electronic  
5 environment and it also still fuels a paper  
6 product.

7 Boaters who use charts are often  
8 buying the third party chart kits. And if you  
9 think about that, those chart kits can run  
10 around \$126, those big spiral bound. It's a  
11 beautiful format. But they're only good for  
12 the moment that they buy them maybe or maybe  
13 they're already outdated when you buy them.

14 Our objective is to make sure  
15 recreational boaters have access to the latest  
16 and most correct navigation information. So  
17 a lot of our effort, especially to the app  
18 building and the industry outreach we're  
19 doing, is to focus on that opportunity. And  
20 I'll talk some more about that.

21 On-screen charts for planning and  
22 reference. And then, of course, their

1 response with the Federal Register Notice  
2 process on the Magenta Line was overwhelming  
3 keep it. And we will be rescheming that  
4 directional guidance for the AIWW on our  
5 charts.

6 Light commercial vessels, the  
7 towing industry, we haven't spent a whole lot  
8 of time on these folks. We're painfully aware  
9 that they're caught between the old and the  
10 new. By regulation, they have to maintain  
11 paper charts and paper publications.

12 Yet most of them are savvy on the  
13 electronics. We visited Harley Marine in  
14 Seattle. A fantastic outfit. They have  
15 several companies around the country. But in  
16 this case the focus of their business out of  
17 Seattle we're really talking about their  
18 service up to Alaska and what their  
19 experiences were.

20 But they're using Rose Point  
21 software. It's an excellent software package.  
22 And it works really well for them. And yet

1           they still have to maintain paper. We can't  
2           help with that; that's a Coast Guard  
3           rulemaking issue. But we're looking forward  
4           to that being resolved for them.

5                        So the six of that final market  
6           sector is the non-navigation. And we spend an  
7           awful lot of time thinking about this because  
8           in the GIS enterprise that we're building it  
9           plugs in directly to the rest of the world.

10                      So our GIS enterprise and our  
11           information infrastructure, the databases that  
12           we're building, are all geared around modern  
13           GIS technology. And those are also in the  
14           commercial world or in the private sector.  
15           Most of the users are grabbing our information  
16           through, for instance, web mapping services  
17           which is really the way you share information  
18           in a GIS enterprise.

19                      They're interested in and they  
20           understand our observations and our modeling  
21           capabilities and especially the Reinsurance  
22           Association of America. It's a much different

1 group of users. But they are interested in  
2 our data and our products to help them in  
3 their work.

4 I've just recently started a  
5 contact with the American Institute of Marine  
6 Underwriters to see if they care about  
7 navigation charts and about navigation  
8 information. So we'll see where that  
9 conversation leads to.

10 In the picture is Shepp meeting  
11 with Jack Dangermond, the President of Esri,  
12 and we have a really good relationship with  
13 Esri in particular. And we interact with them  
14 at a whole range of levels, at the technical  
15 level. I was at a senior executive conference  
16 a few months ago.

17 So we're learning a lot from them.  
18 And what we're learning from them is how we  
19 can better serve up our data to make our  
20 business more efficient, not just to the non-  
21 nav communities, but also to the navigation  
22 communities.

1                   A couple of points I wanted to  
2                   make about inside that cloud of ecosystems in  
3                   our value chain and how we're addressing  
4                   those. So one thing that's coming up very  
5                   quick is an Industry Day on October 10th.  
6                   We've invited the industry, app developers,  
7                   software developers who serve and also the  
8                   folks who make the systems like Farinos and  
9                   the Garmins that boaters use to a one-day  
10                  seminar where we've invited from NOAA speakers  
11                  to come and talk about the whole range of NOAA  
12                  products and services.

13                  We'll have the Weather Service  
14                  there. We've got IOOS coming. We've CO-OPS  
15                  coming, I'm pretty sure we've got NGS coming.  
16                  I can't even think. There's the satellite  
17                  folks will be there. And they're all going to  
18                  talk about their products and services. The  
19                  Weather Service I mentioned. And we're going  
20                  to try and see if we can't get the industry  
21                  excited, these app developers, about being  
22                  more innovative and delivering better data to

1 help make better decision support tools for  
2 the whole range of end users and in this case  
3 in particular the recreational boater.

4 How am I doing on time? I'm  
5 almost done. Okay. You guys have to hold up  
6 a time sheet.

7 All right. So we mentioned some  
8 of our new traditional products that these are  
9 a direct result of what we hear from our  
10 users. We have the New Charleston chart which  
11 we've talked about quite a bit. But we also  
12 produced a new chart for the St. Mary's River  
13 up in the Great Lakes. Great Lakes shout-out,  
14 Frank.

15 (Laughter.)

16 And then we also received very  
17 extensive short line updates from RSD, which  
18 was applied to the chart -- the Great Lakes  
19 charts -- in the last year. And those were  
20 pretty significant. Those had to do with a  
21 lot of datum shifts which was the main reason  
22 our shore line was off.

1                   So if you go back into the history  
2                   of -- I may as well go over time in a big way.  
3                   If you go back in the history, there used to  
4                   be Great Lakes Charting Service, Andy. The  
5                   Great Lakes. It was a different organization.

6                   -  
7                   MEMBER ARMSTRONG: Lake Survey  
8                   Center.

9                   RDML GLANG: The Lake Survey  
10                  Center, right. And their charts were on a  
11                  datum as I understand it. I think we finally  
12                  --

13                 MEMBER ARMSTRONG: 1912.

14                 RDML GLANG: Yes, finally after  
15                 many decades, I think we've gotten all that  
16                 straightened out. This is important because  
17                 the mariners and the shippers are operating up  
18                 there with GPS. So if our charts are on a  
19                 different datum, that's not going to do you  
20                 any good. So you can see in the red in the  
21                 picture down here the red line. That was the  
22                 old shore line or the new shore line. I can't

1 remember which, but substantial shift.

2 And then we're also recapitalizing  
3 our boats. It's a very slow process, but  
4 we're looking at contractor work any day now  
5 to start with the first two boats.

6 New format. So I mentioned we  
7 went through this period when we ended litho  
8 we said how can we make sure we're better  
9 serving especially the low end customer, the  
10 recreational boater, the kayakers. How can we  
11 make sure they get the latest chart in their  
12 hand? How can we serve folks don't need a PDF  
13 chart for the purpose of bridge navigation but  
14 need access to a paper chart?

15 So we made the PDF charts  
16 available on a trial basis. And then based on  
17 the responses, the PDF really is the backbone  
18 format for all of our paper products. It's  
19 just that we have to create different overlays  
20 for those for each of whether it's POD or the  
21 DoD version and so on.

22 We also have the handy

1 BookletChart which that product came out  
2 several years ago. But what we've done now is  
3 we formally incorporated that product into our  
4 Format and Distribution Branch which is a new  
5 branch that was an outcome our reorg.

6 And then we've almost made  
7 significant improvements to our website. It's  
8 not the big overhaul of our website that we  
9 really want to do. It was kind of a light  
10 touch. But we really by going and listening  
11 to our users and by thinking this through we  
12 tried to implement three clicks; it should be  
13 three clicks to get at any of our products.  
14 And I think we've been more or less  
15 successful.

16 We've asked the Coast Guard to  
17 approve the use of a digital version of the  
18 Coast Pilot to meet carriage requirements so  
19 that mariners don't have to carry a paper copy  
20 of the Coast Pilot. This will have to go  
21 through a rulemaking process. I think it's  
22 out there right now.

1                   There's kind of this broad Federal  
2                   Register Notice where the Coast Guard is  
3                   collecting comments on all kinds of digital  
4                   navigation products. But buried in there  
5                   really is also the outcome for the Coast  
6                   Pilot.

7                   The notion of having an eReader or  
8                   a tablet in the wheel house of the ship so  
9                   that you can refer to the Coast Pilot and  
10                  easily update it, that's kind of a pretty  
11                  powerful modern idea. That's what we were  
12                  pushing here.

13                  What you don't know in the  
14                  background maybe is that we've completely  
15                  revamped the Coast Pilot. It lives in a  
16                  database. We can update it and it's available  
17                  in at least three different electronic  
18                  formats.

19                  And then I mentioned our  
20                  transition from litho printing to an all print  
21                  on demand environment. And in less than a  
22                  year we went from two to 15 print on demand

1 partners. And the exciting thing is that  
2 these print on demand partners have all to  
3 meet our standards as far as producing a paper  
4 product. And we certify the product that they  
5 give us for an inspection. We'll certify that  
6 you're a certified NOS chart producer.

7 And they've come up and been very  
8 creative and offer a variety of paper formats  
9 and also have made the prices really  
10 competitive. So you can go out and find a  
11 nautical chart for \$15 where under the litho  
12 environment it might have been \$21 or \$26  
13 depending on the chart.

14 That has been a good thing. And  
15 we've enabled business. We like to hold that  
16 up when Secretary Pritzker talks about open  
17 for business.

18 There's my salute photo to  
19 lithographic printing. That's a stone plate  
20 there actually that they're rolling ink on.  
21 Those guys are all retired now.

22 (Laughter.)

1                   Those are the stone tablets that  
2                   came down with Moses, yeah.

3                   The big changes though are some  
4                   really big changes that are not readily  
5                   apparent to the outside world. I'll mention  
6                   a few. But it's really been this ENC First.  
7                   And I mentioned that essentially four parallel  
8                   production lines depending on whether the  
9                   charts were in Raster or vector format or  
10                  whether they were in continual maintenance or  
11                  in the new addition maintenance.

12                  We've scaled that down to two  
13                  production lines and we're working hard to go  
14                  to one production line and that's all hinged  
15                  on building and populating our database, which  
16                  is going to be our priority here for the next  
17                  three years. And that will be one of our  
18                  major priorities in the coming roadmap that  
19                  we're going to be developing for the next two  
20                  years.

21                  New products, ENC Viewer. This is  
22                  a big deal because when you download it in

1           ENC, a TripleZero file, there was no way to  
2           open it. You could go and grab a proprietary  
3           viewer. It was really clunky. But one of the  
4           most common email complaints we got was "I  
5           downloaded this TripleZero file and I can't  
6           look at it."

7                         So now you can go to our website  
8           and you can actually look at the ENCs. You  
9           don't download them from there. But you can  
10          browse all of our ENCs, zoom in, see all the  
11          features, all the codes.

12                        I mentioned the quicker updates.  
13          There are some real good statistics there  
14          where we've reduced the latency. Because we  
15          got out of the paper business, the notion of  
16          a new addition of a chart went away. So we'll  
17          still produce new additions of the charts, but  
18          we can now put a broader range of new  
19          information on the charts and push those out  
20          on a weekly basis.

21                        In process, getting our datasets  
22          compatible with web services. And one example

1 is we have our new REX database online. It's  
2 not a full realization of what you could do  
3 with that, but I think it meets what we heard  
4 from our customers on getting access to our  
5 REX database.

6 Future products. We'll be talking  
7 about some more of the high resolution overlay  
8 for LA Long Beach, the Raster Chart Tile  
9 Service which goes directly to the industry on  
10 making our charts more easily available for  
11 app developers. And then working with the  
12 pilot unit manufacturers to improve mariners'  
13 experience.

14 We also have a socio-economic  
15 study that just got awarded and that will get  
16 underway here in the next year. So hopefully  
17 next year we can brief that out. And the  
18 contracts were already mentioned. June 26th  
19 we awarded the new five year contracts.

20 The whole thing has a \$250 million  
21 ceiling. I don't know if you saw the press  
22 release from Litos, but they claim that they

1           were awarded a \$250 million contract.

2                         Not quite right. It's a ceiling.  
3           If you do the math, \$25 million times five  
4           years doesn't get you to \$250 million. What  
5           we've done is added in -- and we've done this  
6           before -- head room into our contract to allow  
7           for supplementals to be executed through the  
8           contract. Based on past experience, it would  
9           appear it's likely we get a supplemental in  
10          the future for particular disaster.

11                        But this new batch of contracts  
12          builds on already a program with 15 years of  
13          experience. And we've awarded over \$400  
14          million in contracts. That's a lot of money  
15          going out to the private sector.

16                                 (Applause.)

17                        And at this time there are eight  
18          private survey firms. We've gone up by one.  
19          Four happen to be large business and four are  
20          small business. So that's the end of that.  
21          Got any questions? I'll take them now or  
22          later.

1                   Oh, key concerns. The last thing  
2                   the panel asked us to offer and I've been  
3                   thinking about what would be a key concern  
4                   that I have. So I put it through the What  
5                   Keeps Me Up At Night filter and there are  
6                   probably a couple of those things.

7                   But the one that I think the panel  
8                   should be aware of and the public is that NOAA  
9                   has two vessels that are devoted to mapping in  
10                  the Arctic and in Alaska, the Rainier and the  
11                  Fairweather. And those ships are 46 years  
12                  old.

13                 They are the most productive and  
14                 effective hydrographic survey platforms in the  
15                 world. No question about it. When everything  
16                 works on them and they're fully staffed and we  
17                 have a full field season, there is nobody  
18                 public or private that can beat the  
19                 productivity of those vessels.

20                 But those ships will be retired  
21                 probably in the next 10 to 12 years, depending  
22                 on how well we can take care of, how well

1 we're funded to do the maintenance and the O&M  
2 on those.

3 It takes 10 years to build a new  
4 ship. By the mid '20s, NOAA will have no  
5 capability for surveying in the Arctic. If  
6 you read -- and we went through this and we  
7 could go through it -- we've got half a  
8 million square nautical miles of US EEZ in the  
9 Arctic. And about 40,000 square nautical  
10 miles of that are critical or are  
11 navigationally significant for the purpose of  
12 the marine transportation system and coastal  
13 routes in and out of ports in Alaska to  
14 support fisheries and other resource  
15 extraction, to support navigation through the  
16 Beaufort Sea and up into the Chukchi and in  
17 the Arctic Ocean.

18 That capability is going to go  
19 away about the same time that more and more of  
20 the Arctic will be open. I would view that as  
21 a problem. There's nobody in the private  
22 sector that's building vessels to go do

1 hydrographic surveying up there because  
2 they're \$25 million a year spread across eight  
3 contractors. Frankly, the cost value of the  
4 proposition is no good.

5 So NOAA operates ships for a  
6 reason. We do that because you have to go to  
7 sea to get the science done, whether it's  
8 hydrography or fishery science or whatever the  
9 science. That's a policy decision. As a  
10 federal agency, as an ocean agency, that's our  
11 mission to go to sea and do that.

12 So that would concern me that we  
13 would lose that capability in 10 to 12 years.  
14 And I think that should concern you all as  
15 well. That's one of the things that keeps me  
16 up at night. Thanks.

17 MEMBER JEFFRESS: I have a  
18 question. Has Google approached you about  
19 adding all of your charts into Google Ocean?

20 RDML GLANG: Yes.

21 MEMBER JEFFRESS: And what  
22 happened?

1                   RDML GLANG: I'm not sure exactly  
2                   if anyone is actually implemented that. But  
3                   they're available. I'd have to follow up  
4                   exactly. I know we had Google come and we've  
5                   talked with them. They were more interested  
6                   in the REX database.

7                   Certainly, Esri makes all of our  
8                   charts available. In fact Esri is the one  
9                   that really took a stab at that ENC Viewer to  
10                  make that available. And all our charts are  
11                  available as base layers through the Esri  
12                  product line.

13                 But I don't know if anyone has  
14                 actually implemented our charts in Google. I'm  
15                 sure someone has. We have the Raster chart  
16                 tile service or the Raster chart server, which  
17                 makes all our Raster charts available. And  
18                 then tile service is being developed in an  
19                 open source format which would fit readily  
20                 into a Google map I would think. It's  
21                 essentially the same kind of tile format  
22                 Google uses.

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Joyce.

MEMBER MILLER: What's the operational schedule on hydro ships this year? I mean are the ships out and how many operational days do they have?

RDML GLANG: The sea day allocation was very good for FY 14, somewhere in the order of 180-190 days at sea for each of the ships. However, the fleet -- and just to be clear to everybody, I don't manage the hydrographic ships. I am the program.

The ships are owned and operated and managed by the Office of Marine and Aviation Operations. It's a separate budget. They do all the allocation planning. They control the maintenance. They control the staffing.

But I'm a user of them. They do my science and I get it.

The challenge for the fleet this year has been it's a three-legged stool. It's either sea day allocation, which we've had

1           some very tight years and you saw the dip in  
2           NOS funding and that was similarly reflected  
3           in their budget lines. This year we did well  
4           on sea days.

5                         The second leg in the stool is  
6           maintenance. Is the ship in good repair? The  
7           Fairweather was off line last year or the year  
8           before for an extended period to have its  
9           damage replaced. So we essentially were not  
10          getting any data from the Fairweather for  
11          about a year -- the Rainier the year before  
12          that because of the major overhaul period.

13                        And then the third leg is  
14          staffing. And it turns out that a very  
15          critical staffing on the ships are licensed  
16          engineers. And if you're short one licensed  
17          engineer, the ship doesn't sail. And that's  
18          been our Achilles heel this year. We have not  
19          had enough licensed engineers to staff the  
20          ships so that they could operate.

21                        So the ships have been in  
22          different ports for extended periods of time.

1           They've made up for some work with just  
2           operating with launches while the ship didn't  
3           get underway. But frankly we lost a lot of  
4           time because we did not have licensed  
5           engineers.

6                         There's a reason for that. That's  
7           because of the oil business in the Gulf is  
8           extremely well paying and lucrative. And in  
9           the demographics of licensed engineers, it is  
10          the new third assistant engineers, who are  
11          coming out of the Academies, who don't want to  
12          sail on NOAA ships because we make them share  
13          a room. They don't have single bunks because  
14          NOAA is not good enough at the basics of  
15          meeting the administration nuances of making  
16          sure they're paid at the appropriate level,  
17          that they get travel reimbursements. We sort  
18          of screwed up at the basics. And they're  
19          getting paid way more money for working much  
20          less time in the private sector like the oil  
21          business.

22                         This year has been tremendously

1 harmful to our productivity because we've been  
2 short on people. It's a consistent struggle  
3 between those three legs of the stool. And  
4 this year that one leg was whacked pretty  
5 hard.

6 And now we're at a situation where  
7 both the Rainier and the Fairweather have  
8 developed age-related problems that have to be  
9 addressed. So they're both needing to undergo  
10 repairs. So they're not productive.

11 The Thomas Jefferson had  
12 challenges as well early in the year with  
13 repairs and with engineers and with a launch  
14 being done. I think right now they're all  
15 back up and operating and in order.

16 And the Hassler was scheduled for  
17 some modifications that were -- without those  
18 she is really limited in her operating range.  
19 So I'm not sure. She had some dockside work  
20 scheduled which hasn't happened yet. We've  
21 been waiting for that contract award.

22 But activity-wise it has been a

1 good year for us. But the issues are really  
2 related to staffing and to repairs. They are  
3 symptoms of an aging fleet.

4 MEMBER BARBOR: Truly appreciate  
5 the brief. I thought it was very good. Some  
6 apparently very honest comments. Obviously,  
7 I would be concerned about the military  
8 government side. But I'll brush that one  
9 aside and I'll say the SOLAS slide really  
10 concerns me. It does not sound good.

11 RDML GLANG: In what way?

12 MEMBER BARBOR: If your ENC's are  
13 not fit for purpose, that sounds like a  
14 problem. Go back to that.

15 RDML GLANG: We're interpreting  
16 here. Yes, I know what you're saying. I  
17 thought twice about that and I said we know we  
18 can do better. We know the information  
19 content. When the cruise line says we're  
20 trying to turn on 10 meter contour in our  
21 ECDIS, we go back and say it doesn't exist.

22 Why doesn't it exist? Well, the

1 chart, the ENC was built from the paper chart.  
2 There's a change in use going on here. As  
3 we've transitioned into the electronic world  
4 and people are having to relearn how to use  
5 these electronic systems, ships have gotten  
6 bigger and bigger. Now we have new demands,  
7 a requirement for new information.

8 Our big push to get all of our  
9 charts fully populated into our database, if  
10 we can get that done here in the next few  
11 years, then we can start improving the  
12 information content.

13 The Charleston charts actually is  
14 an example where we did go to the users and  
15 ask them, "What contours do you need?" So we  
16 actually put that in up front.

17 But if you remember the build out  
18 of ECDIS by the whole world it was a long and  
19 painful process. And different countries took  
20 different approaches. The purest approach is  
21 collect all new digital data, build high  
22 resolution surfaces, cut contours at every

1 meter and the mariner can turn on and off  
2 whatever they need.

3 But that's sort of the nirvana.  
4 The reality is we have to crank out and  
5 produce ENC's. What we're finding now is it's  
6 really not the right information for the  
7 purpose of this chart.

8 We'll get these issues resolved  
9 here in the next few years in the key places  
10 I think. But the only way we know if we go  
11 and ask these people. Right. That's key.

12 MEMBER BARBOR: Like I said, I  
13 think the brief was great and apparently very  
14 honest. But that does concern me and I think  
15 obviously it concerns you. I'm not  
16 belittling. But it's the sort of thing I  
17 think we would wish to address and ensure that  
18 there is a work line there that is meeting  
19 those issues.

20 RDML GLANG: I've probably taken  
21 twice my time, right.

22 VICE-CHAIR HANSON: Sir, you can

1 have as much time as you want, can't you?

2 (Laughter.)

3 I want to ask a couple of  
4 questions as much for you as for Paul. But  
5 what would a fully funded NOS budget look  
6 like?

7 RDML GLANG: NOS budget? It's a  
8 100 percent requirement question. Rich knows  
9 this one.

10 MEMBER EDWING: It's been awhile.

11 VICE-CHAIR HANSON: Okay. There's  
12 a purpose for the question and the reason is  
13 on the infrastructure side, we've got the term  
14 shovel-ready. And that came about and the  
15 most efficient agencies have a list of  
16 projects, a capability list. This is what  
17 they can perform in a given year.

18 This is what they can ramp up to  
19 given how they can accomplish the goal. In  
20 this case when we started talking about this,  
21 this was to maintain every port in the country  
22 to its authorized dimensions.

1                   And the Corps actually developed a  
2                   plan that we could do that and get there in  
3                   five years with full funding. And there were  
4                   numbers attached to it. And then, of course,  
5                   after you fully and efficiently maintain a  
6                   system, the annual cost actually decreases  
7                   because you're not playing catch-up all the  
8                   time. That's anecdotal but intuitive.

9                   And we've done the same thing with  
10                  the research side trying to chime in some of  
11                  our academic friends. If you want us to get  
12                  some money for you for research, where is your  
13                  research ready list? Don't just ask us to go  
14                  get money for you. And then you'll figure out  
15                  where it's going to go later. That doesn't  
16                  help. But to have a true list.

17                  Survey ready becomes the next  
18                  question. And we're looking at your most  
19                  wanted list again.

20                  RDML GLANG: So different ways to  
21                  answer this question. But there's not a  
22                  single place I think that you could put a

1 large amount of money and make progress on.  
2 There are pieces that NGS has to accomplish.  
3 There are pieces that CO-OPS has to accomplish  
4 for us in order for us to execute a successful  
5 survey, whether it's us or a contractor.

6 And then there's that other piece,  
7 the tail here, is actually taking that  
8 information and building a chart or creating  
9 another product. And more and more we  
10 realizing that our models have value to the  
11 navigation community as well as to the  
12 resilience community. There's also this  
13 modeling demand that's coming on us which we  
14 didn't even talk about here today on both the  
15 development side and on the operational side  
16 of the model.

17 I think 100 percent today looks a  
18 little bit different maybe than it did ten  
19 years ago when we were doing PPBES. But we  
20 could certainly crank out a whole lot more  
21 surveys if we just poured more money into that  
22 address survey backlog. But it's like the

1 snake swallowing the pig. That thing is going  
2 to work itself down and eventually I have to  
3 deal with that lump of data. Whether it's the  
4 air surveys, the shoreline surveys that RSD  
5 was flying, they had to deal with that.

6 And then that data came to us and  
7 the initial assessment was, "Oh, it will take  
8 us seven years to put all that data on the  
9 lake charts." It didn't because we told them  
10 they can't have many years.

11 MR. ASLAKSEN: And by the way  
12 you've got 11,000 miles to show on this year.

13 RDML GLANG: I'm not turning the  
14 money down though.

15 VICE-CHAIR HANSON: But you're not  
16 going to get it if you don't have a plan. And  
17 you've got to have numbers to toss around. In  
18 fact, looking at the most wanted list again,  
19 we continue to fail to meet our goals.

20 If somebody said how much money do  
21 you need, what would be your answer?

22 DR. BRADLEY: The President's

1 budget.

2 (Laughter.)

3 VICE-CHAIR HANSON: Okay. So  
4 that's a plan. That gives you something to  
5 work with. If you don't have a plan, you're  
6 just -- excuse me because we get accused of  
7 this all the time. Contractor are just lying.  
8 And I'll tell you how we plan to fix it.  
9 We've got nothing to talk about really. We  
10 continue to put out products. I suspect OMB  
11 would let you put a number on the most wanted  
12 list because that would be another place for  
13 it.

14 But I'd like to see a five or ten  
15 year plan. And I think from that you build  
16 your new vessel. You take this anemic \$25  
17 million budget and you turn into something and  
18 you can actually accomplish something. You  
19 get contractors willing to invest in equipment  
20 and innovation. And the whole industry grows  
21 together.

22 I think that's how you have to

1 approach that. And I'd like to see a little  
2 more discussion. Maybe some of the numbers  
3 are available. Maybe there are some things  
4 you can't talk about because you're not  
5 allowed to. But certainly we're not meeting  
6 the goal and I'd hate to walk out of another  
7 meeting without a forward direction.

8 DR. BRADLEY: Maybe you can  
9 forward the HSRP report to Congress.

10 VICE-CHAIR HANSON: I'm sorry.

11 DR. BRADLEY: Maybe you just send  
12 the HSRP report to Congress.

13 VICE-CHAIR HANSON: And then  
14 report to the Administrator and we can deliver  
15 it to Congress.

16 DR. BRADLEY: I'll just briefly  
17 point out a couple of things, but I think it's  
18 a really good question and a really good  
19 point. And obviously, we're somewhat limited  
20 in public meeting with respect to how we can  
21 answer that question.

22 But to look at a couple of

1 examples of where we've looked to do more for  
2 NOS, the 2014 President's budget had some more  
3 funding in it for some of the priority  
4 efforts, GRAVD, our water level network, the  
5 topobathy LiDAR. So there are a few examples  
6 in there where we really tried to put a little  
7 more skin in the game for NOS. And it didn't  
8 work out in the Hill.

9 So there's that and then there's  
10 the Sandy Supplemental, where we did a lot of  
11 funding for mapping and charting for marine to  
12 marine mapping, for different components  
13 within NOS. And it gives you kind of a flavor  
14 for how NOS would go about it. If we were to  
15 have more money, what are some of the things  
16 that we'd do with it?

17 So those are a couple of things  
18 you could take a look at. I'm happy to share  
19 any details from those if you would like me  
20 to.

21 MEMBER EDWING: And to Bill's  
22 point, I'll just point out the IOOS

1 Association has their plan. They've got a big  
2 number of \$528 million or \$700. It's a big  
3 number that they put together and that may be  
4 a partial explanation as to why the numbers  
5 got. The whole Association put that together  
6 for them.

7 And it's really about the  
8 Association. It's not so much about the  
9 federal side. It appears to have been an  
10 effective tool for them.

11 MR. ASLAKSEN: I think we've been  
12 good about components. It's 100 percent  
13 requirement. We need an additional \$10  
14 million to do the shoreline every five years.  
15 But I've never seen or can think of a metric  
16 of what it would take to do the charts, have  
17 update to charts, revisit every two years or  
18 what that conglomeration of all the support  
19 data to build a most accurate chart would be.

20 That takes all the components and  
21 builds it into one number. But I don't think  
22 I've ever seen that. What would it take to

1 keep charts updated near real time or current  
2 or what that would be?

3 MEMBER KUDRNA: Bill's quite  
4 absolutely on target. And when you go to OMB,  
5 they want to know what you're going to do for  
6 the money. What exactly is going to get  
7 accomplished? And that's really an important  
8 question. They use as the poster child The  
9 Weather Service. They say The Weather Service  
10 as you throw much more money. We're going to  
11 give you so much more alert time and it's  
12 going to save so many lives. They want to  
13 know the benefits that are going to occur from  
14 the expanded funding.

15 And I think this shipbuilding is a  
16 really legitimate topic. If you're going to  
17 have to take ships out of service or reduce  
18 time and activity and you've got a lead time  
19 of ten years, that's something you really  
20 ought to be talking about now. And we  
21 probably should be talking about it and  
22 elevating that topic in terms of comments and

1            recommendations going forward.

2                            The disaster for a long time was  
3            replacing satellites for NOAA because it's  
4            such a big enchilada that it takes out of the  
5            budget. NOAA should probably be talking about  
6            a capital investment plan for the rest of NOAA  
7            which includes ships associated with your  
8            activities plus the rest of NOAA that would  
9            continue major funding after the satellite  
10           piece takes place instead of just falling off  
11           the table.

12                           I think that's a prime target.  
13            And it meets that requirement that OMB looks  
14            for. If you don't do this, what are the  
15            consequences? And they're major.

16                           CHAIR PERKINS: Rich, I apologize.  
17            I know you're ready to go. But I think it  
18            would be --

19                           MEMBER EDWING: I think that was  
20            the clue --

21                           (Laughter.)

22                           CHAIR PERKINS: It's been

1 requested and I think it's a good idea that we  
2 insert a short break here for those of you  
3 that are traveling this afternoon have an  
4 opportunity to complete your checkout process  
5 and get things in order. If we can take no  
6 more than 15 minutes right now to allow those  
7 who have to travel this evening to get that  
8 accomplished. Please be back in less than 15  
9 minutes and we'll get rolling again.

10 (Whereupon, the above-entitled  
11 matter went off the record at 10:37 a.m. and  
12 resumed at 11:08 a.m.)

13 CHAIR PERKINS: We'll continue the  
14 briefings from the Triservices.

15 MEMBER EDWING: Good morning,  
16 everyone. Rich Edwing, Director of CO-OPS.  
17 I certainly can't get us back on schedule, but  
18 I'll help minimize us falling further behind  
19 schedule. And I'll really address the  
20 question that the HRSP panel put to us, which  
21 is how do we do outreach to the local maritime  
22 communities.

1                   Just starting off with this slide,  
2                   turning operational oceanographic data into  
3                   meaningful information for the nation, that's  
4                   been our catch phrase on our website for  
5                   longer than I can remember. In one way, it's  
6                   another way of saying providing coastal  
7                   intelligence, I think.

8                   But really the main point is in  
9                   order to know we're providing meaningful  
10                  information we have to be interacting with our  
11                  users in the community to make sure they're  
12                  finding it meaningful and useful. We serve a  
13                  number of sectors besides the maritime  
14                  communication-maritime transportation system.

15                  A little over five years ago we  
16                  restructured ourselves into a bit of matrix  
17                  match organization where we have four programs  
18                  and four program managers. And really,  
19                  they're the tips of the spear, in terms of  
20                  it's really their responsibility to be the  
21                  main points of contact for interacting with  
22                  different groups of stakeholders, making sure

1           that they understand their needs or  
2           requirements, and getting feedback on how well  
3           we're doing, and making sure those communities  
4           are well serviced.

5                         We call one of these the Mapping  
6           and Charting Service. Laura Rear McLaughlin  
7           is our program manager. And this is really  
8           the foundational level of services we provide,  
9           mainly the title datums of things that are  
10          served up through the water level observation  
11          network. This is really more of an internal,  
12          customer focused area because it's how we're  
13          servicing the needs of Coast Survey and, you  
14          know, the hydrographic surveys and NGS for  
15          shoreline mapping. But they're also working  
16          closely with other Federal partners, like  
17          Corps of Engineers when they need help on  
18          datums and those sorts of issues.

19                        And down right here is our  
20          Maritime Services Program Manager and this is  
21          the externally focused aspect of our Maritime  
22          Transportation Services. This is where we're

1 working along side Coast Survey and NGS to  
2 deliver that suite of products and services  
3 needed for safe and efficient maritime  
4 commerce, our real time data, primarily  
5 through the PORTS program, tides and currents  
6 predictions through our current observation  
7 program and other ways, and also the models.  
8 Gerd had mentioned those in his presentation.  
9 Coast Survey develops and we operate the  
10 forecast models that provide oceanographic  
11 information.

12 And then we have our resilience  
13 program. Actually up until recently, this was  
14 called the coastal program. This is non-  
15 navigation, you know, how do we service the  
16 non-navigation community. But we recently  
17 brought in a new program manager. And she  
18 said, when I look at this suite of things this  
19 says resilience to me.

20 And we said, you're right. So we  
21 changed the name to resilience. But it's  
22 really about coastal hazards. We provide a

1 lot of services that help with storm surge  
2 warnings and tsunami warnings and those sorts  
3 of things, climate, the long-term sea level  
4 trends we've heard mentioned over the last  
5 couple of days, and also ecosystem habitat  
6 management restoration and those sorts of  
7 things.

8 Those were the three original  
9 programs. But we recently established a  
10 fourth program manager for ecological  
11 forecasting. And this is really in support of  
12 the cross NOAA effort that's going on for  
13 ecological forecasting. And Allison Allen,  
14 who was our Coastal Program manager moved over  
15 to manage this piece.

16 We've been doing the harmful algal  
17 bloom forecasting for quite some time. But  
18 the ecological forecasting roadmap has brought  
19 in looking at doing forecasts of hypoxia and  
20 pathogens and those sorts of things. It's not  
21 maybe as relevant to the maritime group as  
22 maybe these other three. But that's how we're

1           dealing with -- that's how we identify our  
2           groups of stakeholders and internally try to  
3           handle that.

4                       Everybody needs some  
5           infrastructure to do that. Gerd talked about  
6           his four priorities. We have our four  
7           priorities captured in our -- coincidentally,  
8           we have four priorities identified through our  
9           strategic plan. And the very first one is to  
10          recognize that we need to be doing good. We  
11          need to provide good customer service. In  
12          order to do that, we need to be out there  
13          doing outreach, and education, and so forth  
14          with the communities.

15                     The personnel we have, like the  
16          program managers, again, are the tip of the  
17          spear and have the ultimate responsibility for  
18          the sorts of interactions. Anybody in your  
19          organization can bring in a requirement or  
20          something. But it all has to be funneled back  
21          to these guys until their heads explode.

22                     We also have a communications

1 specialist who helps with some of those  
2 aspects, project leads, field crews or other  
3 people who were out there typically  
4 interacting with the communities and can bring  
5 back requirements or feedback or those sorts  
6 of things.

7 And, of course, we don't just rely  
8 on ourselves to go out there and do these  
9 things. Navigation managers, and I probably  
10 should have bolded that or maybe listed that  
11 three times, because navigation managers are  
12 our main eyes and ears out there for us and  
13 work very well with us.

14 But then there is a long list of  
15 other people who to some extent we work with  
16 to try to get requirements or get our messages  
17 out. I'm not going to certainly read through  
18 that. And again down here what are some of  
19 the tools we use. Certainly, our website, the  
20 website is our main window to the world, in  
21 terms of product delivery. We have to make  
22 sure that's really meeting the needs of the

1 customers and do things to make sure that's  
2 working as well.

3 So, at one level, we're really  
4 doing those kind of routine things every year.  
5 There's a whole suite of conferences that the  
6 program managers are going to. I really just  
7 listed the MTS oriented ones here. There are  
8 more for some of the other programs as well.  
9 But I go to a number of these as well as the  
10 program managers and interact at that level.  
11 Some cases we're doing exhibits or presenting  
12 or just mainly their network.

13 Then we're doing a lot of more  
14 local level check-ins. Local harbor safety  
15 committee meetings are a good way to do that.  
16 I go up to the Great Lakes Waterways  
17 Conference and the Lake Captains Meeting every  
18 year. It's a banner day for you, Frank.  
19 Here's two Great Lake shout-outs on the slide.

20 (Laughter.)

21 MEMBER KUDRNA: Great. Great  
22 progress.

1                   MEMBER EDWING: And then we also  
2                   sometimes make some regional swings through  
3                   the area. Those are always done in  
4                   conjunction with the navigation managers. But  
5                   this year we did Northern Gulf of Mexico, made  
6                   a swing through and met with the stakeholders,  
7                   Congressional staff and those sorts of things.  
8                   Tim Osborn really helped us with that down  
9                   there. That's kind of the meeting sort of  
10                  level.

11                  We also do a lot of project-  
12                  oriented interactions with the communities.  
13                  Any time we dedicate a new PORTS or deliver a  
14                  new PORTS. I should say any time we're  
15                  establishing a new PORTS the very first thing  
16                  we do is call a requirements meeting there.  
17                  It's not just with the partners who have  
18                  signed up to support the PORTS, but we're  
19                  calling any Coast Guard and the Corps of  
20                  Engineers and the Weather Forecast Office and  
21                  anybody else that the local navigation manager  
22                  and others can help us identify. Because,

1           when we're identifying where stuff is needed,  
2           where sensors are needed, that input is very  
3           valuable.

4                       I'll use Jacksonville as an  
5           example where we relocated one of the tide  
6           gauges at the port to a location that was very  
7           helpful to the Weather Service. That  
8           particular location was a confluence of three  
9           different storm search regimes. They were  
10          telling me when I was down there for the  
11          dedication that they were doing a bad job of  
12          being able to predict storm search because  
13          they didn't have some observations.

14                      But having that station at that  
15          location was going to be a tremendous help to  
16          them. Of course, having a storm search  
17          forecast is a help to the local maritime  
18          community. Plus we hardened that station.  
19          Typically, port stations aren't hardened  
20          because the money isn't there. But that  
21          station got hardened to survive the storms.  
22          That's kind of win-win for everybody.

1                   And when we do an upcoming tidal  
2                   currents survey we go out and we put out  
3                   notices and stuff and again work through that  
4                   list of partners in that previous slide. They  
5                   get work out that we're coming here. We're  
6                   going to be doing a survey.

7                   We have our existing past  
8                   locations. Which one of those may be off?  
9                   Are there other locations you might want us to  
10                  establish a prediction in? Sometimes that's  
11                  looking for help from people in terms of  
12                  vessels and things.

13                  But there is a lot of outreach  
14                  done in advance of those surveys to make sure  
15                  we're meeting it. We're spending a lot of  
16                  money to go out there and take those  
17                  measurements. So let's try to nail down  
18                  everything we need to do.

19                  And then with the model forecast  
20                  development, not so much before, but when  
21                  we're getting ready to deploy the model, we  
22                  need to pick points in that water body where

1           you can click and get information. It's  
2           usually the pilots that have the greatest say  
3           in where those points are selected. But we  
4           get other input as well.

5                     Just some examples of how as we're  
6           doing projects we're interacting with the  
7           communities to get their input. And part of  
8           the program manager's job is to swing back as  
9           we've done these jobs if it's meeting their  
10          needs and give us feedback on how well we're  
11          doing.

12                    And then there are event-driven  
13          sorts of things. Very recently, we've had  
14          some historical low waters up in the Great  
15          Lakes. So we partnered with GLERL to go up  
16          there and do a lot of media outreach, you  
17          know, mail, through media, but through events  
18          like Engineers Day just again to educate  
19          people. They know what's going on, but  
20          there's different services that both we and  
21          GLERL provide that can maybe help get some  
22          information out about that. That was kind of

1 a nice effort.

2 Again, we use the PORTS  
3 dedications to reach out to the local  
4 community. Most ports have some level of a  
5 dedication event. Again, the Jacksonville one  
6 was a big one. We got Dr. Sullivan down  
7 there.

8 This last year we had a number of  
9 new products that were being rolled out in the  
10 San Francisco Bay area. We had a new  
11 operational forecast model rolled out. We  
12 just completed a couple of years of tidal  
13 currents surveys. And we're putting out the  
14 new predictions for that. Were there other  
15 things, Darren?

16 (Off microphone comment.)

17 That's right. We collaborated  
18 with the IOOS Regional Association. We're  
19 using data from their HFR system to put in a  
20 new product targeted for the maritime  
21 community. We went out there and had a day  
22 where we had a lot of meetings, just did a lot

1 of education and training and those sorts of  
2 things.

3 And sometimes with NWLON stations  
4 this goes back a number of years, but our San  
5 Francisco station celebrated its 150 years of  
6 continuous measurements. Then we established  
7 the 200th NWLON stations down in Mobile Bay,  
8 Alabama, that coincided with the 200th  
9 anniversary of NOAA. We made a big deal about  
10 that. Just some examples of event driven  
11 opportunities.

12 I mentioned earlier our website.  
13 Obviously, important in terms of being able to  
14 deliver information. We try to measure how  
15 well we're doing in a number of ways. Just  
16 this last year we contracted with this company  
17 that puts these surveys up in the websites.  
18 And it's just these ForeSee companies. I get  
19 dinged for surveys from banks and other  
20 places. I go on the web. I know NGS has been  
21 using it for a number of years. I know a lot  
22 of other parts of NOAA are using it.

1                   But they're very helpful in terms  
2                   of trying to get people to take the survey.  
3                   What are the right questions to ask? Then how  
4                   do you use that information to improve your  
5                   website? We just completed our first year of  
6                   data collection. So we're starting to get  
7                   that now.

8                   There's just monthly log files  
9                   from NOS which really tell you things like how  
10                  many hits you're getting, what website are  
11                  they going to most often, what kinds of things  
12                  are they downloading. Our website tends to be  
13                  one of the ones most hit within NOS. I think  
14                  Coast Survey has the record for the most data  
15                  downloaded. They've got those big ENC files.  
16                  It depends on how you look at things, but just  
17                  provides valuable information as well.

18                  And then also recently I think  
19                  we've got the ability to use some Google  
20                  analytics to look at data as well. I think I  
21                  have a backup slide that gives some of the  
22                  results from some of these things. But given

1 the time, I won't go through that.

2 This is just a graphic of showing  
3 what shows up on the website. And I think  
4 what it says is one of five people who go to  
5 the website get the opportunity to provide  
6 feedback. I've resisted the urge to give  
7 feedback when I go on there.

8 So, what's our greatest outreach  
9 need? Well, I'd say it's really just our lack  
10 of physical presence around the nation. I  
11 think the Corps, and USGS, and Coast Guard,  
12 and even the Weather Service they have a very  
13 substantial regional presence. We do not.  
14 Again, we work through the navigation  
15 managers to attack that problem a little bit.  
16 But there is only a few of those guys. There  
17 is only so much they can do.

18 Here's where I have people. Most  
19 of us are in Silver Spring. We have our field  
20 office in Chesapeake, and Seattle, and  
21 recently established some people at the  
22 Disaster Response Center. I know we have one

1 person down in Mobile. But that's very  
2 limited.

3 So that's my biggest challenge is  
4 -- because you really need people where the  
5 action is, so to speak, to be able to really  
6 do a good job of getting those requirements  
7 and those feedbacks. You asked us to answer  
8 this question and I guess I'd be interested in  
9 your perspectives and from your experiences  
10 how can we enhance -- given those limitations,  
11 how can we enhance the effectiveness of our  
12 outreach? That's where I'm going to stop.  
13 Any questions or comments?

14 VICE-CHAIR HANSON: I'll go ahead  
15 and comment.

16 MEMBER EDWING: Sure.

17 VICE-CHAIR HANSON: First off,  
18 congratulations on the PORTS introduction at  
19 Jacksonville. It got a lot of good play and  
20 I notice you have a lot of slides here as  
21 well. And I know the PORTS folks very well  
22 and they've looked at it as them hitting the

1 big time. They're looking at the next round.  
2 And they've got a long way to go. And they  
3 were very proud to be able to introduce that  
4 system and show that they're coming into the  
5 big leagues. I encourage you to do more of  
6 that. Certainly, having Dr. Sullivan doesn't  
7 hurt.

8 MEMBER EDWING: Yes. We almost  
9 had the Secretary of Commerce. She had to  
10 divert to a trade mission just two weeks  
11 before. But she had committed.

12 VICE-CHAIR HANSON: And the higher  
13 level you bring, the higher level they bring.

14 MEMBER EDWING: Right.

15 VICE-CHAIR HANSON: And that's the  
16 visibility. I would encourage you as often as  
17 you can schedule her which makes travel a port  
18 executive director. It would have been great  
19 to have a picture of Mr. Nusome being  
20 presented the new chart, or something along  
21 those lines. And you could still post the  
22 rain stats, or something like that, or with

1 the pilots to do something like to advocate  
2 for NOAA as well. It's all good stuff to show  
3 you're part of the system.

4 MEMBER EDWING: I agree. Okay.  
5 Thank you.

6 CHAIR PERKINS: Thank you, Rich.  
7 (Applause.)

8 MEMBER BLACKWELL: Okay. Good  
9 morning. I think it's still morning. A few  
10 slides here just to give you some high level  
11 information about some of the accomplishments  
12 and activities that we've done mostly in this  
13 past year addressing some of the HSRP  
14 recommendations along the way. I've got about  
15 nine slides here to go through.

16 But just to set the stage a little  
17 bit, a lot of the activities that I'll be  
18 talking about, in addition being supportive of  
19 coastal intelligence and the NOS priorities,  
20 fall directly under the NGS ten year strategic  
21 plan, which I've mentioned to this group and  
22 is available.

1                   But just a refresher on things in  
2                   our ten year plan, we have five big goals, one  
3                   of them being to support the users of the  
4                   National Spatial Reference System. The second  
5                   major goal under our strategic plan is to  
6                   improve and modernize the NSRS, and that's  
7                   where a lot of our developments regarding the  
8                   new datums and new ways of doing business for  
9                   the geodesy side fall under that.

10                   Our third big goal includes  
11                   expanding our stakeholder base through  
12                   education and partnerships and outreach. So  
13                   those are the three functional areas. The  
14                   rest of it is more administrative and internal  
15                   to NGS. Without further ado, we'll move on.

16                   The first thing I want to  
17                   highlight is the fact that the National  
18                   Geodetic Survey collected more than 2600-2700  
19                   square miles of data, topo-bathy LiDAR data,  
20                   in order to improve our coastal mapping as a  
21                   result of super storm Sandy that went through.  
22                   This is part of the supplemental that we

1 received.

2 The images here show what a topo-  
3 bathy LiDAR unit looks like. And the image on  
4 the right shows the shoreline, the coastal  
5 areas, where new data was collected as a  
6 result of the supplemental funding. It was  
7 not only collected from NOAA, but we also had  
8 collaborated with Army Corps, with USGS.  
9 You've heard us talk about this before from a  
10 Federal perspective. I think it was  
11 definitely a well done much better  
12 collaboration that we've done ever before with  
13 being able to map the coast. Certainly we  
14 were able to use Federal assets as well as  
15 third party contractors to be able to collect  
16 this data.

17 Being able to develop a system and  
18 be able to test run it and come up with  
19 standards and specifications that we can then  
20 use for additional contract work is also  
21 something that I think we were very happy to  
22 see happen as a result of the effort here.

1                   In addition to the LiDAR work, we  
2                   also received some funds to accelerate the  
3                   collection of airborne gravity as part of the  
4                   GRAV-D initiative under NGS, to collect the  
5                   blocks that I have here numbered one, two,  
6                   three, four and numbered in red. So that  
7                   helped us complete our regional area including  
8                   the Great Lakes. Frank, Great Lakes. See, I  
9                   mentioned it, too.

10                   (Laughter.)

11                   We had an entire area done that we  
12                   could then use that information, get it sewn  
13                   together and be able into use it for  
14                   experimental geoid models which I'll mention  
15                   here in a minute. But these four boxes of  
16                   collection are completed. The fourth block  
17                   there that's in blue for Sandy is in the  
18                   process of being cleaned up, the data. And  
19                   that will be available on our website as well  
20                   for others to be able to use and do research  
21                   and develop on as well.

22                   I want to mention here in the

1 bigger GRAV-D perspective that -- I think Paul  
2 alluded to this earlier -- in 2014 in the  
3 President's budget there was briefly a \$3  
4 million opportunity to accelerate the GRAV-D  
5 collection and program to help expedite the  
6 development of new vertical, or horizontal, or  
7 geometric, and geopotential datums. That did  
8 not happen in our appropriated budget.

9 But we were successful in getting  
10 a small increase through the Navigations,  
11 Observations and Positioning amount that we  
12 got for FY 2014 that allowed \$250,000 to come  
13 into NGS this year to help improve our  
14 collection rate for GRAV-D. Hopefully, that  
15 will continue to be something that we have in  
16 outyear budgets as well.

17 Looking at the big picture here,  
18 the green area again being the box where the  
19 collection is done. The data has been  
20 processed. It's available. We're at over 38  
21 percent of our total area being surveyed as of  
22 the beginning of August. So we're meeting our

1 metrics on that.

2 And 77 percent of that amount of  
3 data is now publicly available. There's not  
4 a whole lot you can do with it unless you're  
5 in the geoid modeling-airborne gravity  
6 research. And some of that is happening,  
7 especially through some of the universities.

8 But we are using this data to  
9 further develop the models that we have for  
10 the geoid. So while this is very boring to  
11 many people who are not geodesists, the  
12 importance of this is that this is going to  
13 become the very basic starting point of the  
14 basic model for our new vertical datum --  
15 which as you heard yesterday, with Gary's  
16 presentation -- the vertical datum, that  
17 checkbox on elevation flood certificates  
18 whether it's NGVD 29, or NAVD 88, or other at  
19 some point there is going to be a new national  
20 datum for elevations in the year approximately  
21 2020, '22.

22 Hopefully this will be one widely

1           adopted, vertical datum that's much more  
2           accurate than any that we've ever had before  
3           and that GPS and GNSS data can be directly  
4           applied to this model to give heights accurate  
5           to a local ring seal level.

6                        So it will be a great improvement  
7           in being consistent with our elevation  
8           information of having up-to-date data which  
9           will feed into flood plain maps, into surveys,  
10          into development of anything and everything.  
11          This is the basis for this.

12                       This year we were able to take the  
13          areas that are outlined in these broad white  
14          regions, take that GRAV-D data that we've  
15          already collected, and put it into an  
16          experimental geoid model. It's not for  
17          production use. But it will start to give  
18          people an idea of what the magnitude of change  
19          is going to be once there is a new geoid and  
20          then a new vertical datum.

21                       Every year from now on, we will be  
22          able to develop a new experimental geoid model

1           which will hopefully introduce the changes, or  
2           the amount of change that people can expect to  
3           see in the future when there is a newly  
4           adopted datum. It's a start. It's maybe a  
5           small start right now. But certainly we will  
6           continue to be able to let our stakeholders  
7           know more and more about the magnitude of  
8           change is.

9                           This is just a highlight of some  
10           of the work that we have done that's not  
11           necessarily applicable to anything specific to  
12           HSRP. But it is something, a demonstration of  
13           the work that we are capable of doing, the  
14           core competencies we have as surveyors and as  
15           geodesists within the National Geodetic  
16           Survey.

17                           We don't talk about that a lot,  
18           but this was an opportunity to work with the  
19           National Park Service to get up and actually  
20           survey the outside tip of the Washington  
21           Monument, something that hasn't been done in  
22           a number of years and has never been done to

1 the level of accuracy that we were able to do  
2 this year.

3 It was quite an opportunity to be  
4 able to get up in that scaffolding and be able  
5 to do line of sight measurements, as well as  
6 GPS to help establish whether or not that the  
7 height has changed, that there was an impact  
8 from the earthquake that happened in 2011, I  
9 believe. It seems like so long ago.

10 And to be able to get our folks  
11 out there to dust the cobwebs off of being  
12 able to actually do this type of work,  
13 triangulation and things like that. It's  
14 probably been awhile. This was just a cool  
15 picture that I wanted to show.

16 MEMBER WELLSLAGER: Did you get a  
17 chance to go up and touch the top of the  
18 Monument?

19 MEMBER BLACKWELL: I did. I'm so  
20 excited about that. I did not put pictures of  
21 myself in here. But, yes, that was amazing.  
22 It really was. And there is more on our

1           webpage about that, if you want to go look.

2                       Moving on to just an update on  
3           some of the products and services that I  
4           wanted to point out that we've updates in the  
5           past year. Again, this is geodesy focus in a  
6           sense, but it's important from a translation  
7           perspective. We talk about V datum, we talk  
8           about all the different datums and confusions  
9           with that.

10                      Being able to have tools and  
11           create new tools where people can take  
12           information from one datum and transform it to  
13           another datum so it's more useful to them,  
14           back and forth, whether it's geodetic datum to  
15           title datum.

16                      We were able to create a new tool  
17           this year called GEOCON, and another version  
18           called GEOCON 11, which allows surveyors and  
19           anybody using our GIS users that want to be  
20           able to transform between different versions  
21           of NAD 83, so that they can get things on the  
22           same epic, make their comparisons better.

1                   I won't go into a lot of details  
2                   with that. But that is something that is  
3                   available now on our website. We're doing  
4                   improvements in that software so that it's  
5                   more user-friendly, and takes in different  
6                   types of free format information in the next  
7                   version.

8                   OPUS-Projects, we talked about  
9                   OPUS a little bit yesterday. OPUS-Projects is  
10                  the next development in our OPUS suite which  
11                  basically allows folks to take multiple  
12                  observations on multiple stations, or survey  
13                  marks, and use our software to be able to come  
14                  up with positions on their stations. And then  
15                  they have to be trained in being able to use  
16                  the software. But they can then go through  
17                  the next hoops to get that data submitted to  
18                  NGS so that it can become part of the National  
19                  Spatial Reference System.

20                  This is something that a number of  
21                  folks have been asking for and waiting for for  
22                  a number of years. Army Corps of Engineers

1 and CO-OPS also were folks that were very  
2 interested in being able to have an easy way  
3 of collecting their data, sending it to us and  
4 having it become part of the geodetic  
5 database.

6 We still have a ways to go to make  
7 it as user-friendly as possible. But it  
8 certainly is a big advancement to have OPUS-  
9 Projects available to the public through  
10 trained users. In order to get people up to  
11 speed on that, we conducted 61 different  
12 training workshops across the country, a lot  
13 of them virtual, some of them in person.

14 We were able to train 984 people  
15 on the use of this software. Even if a third  
16 of them use that in the next year I think that  
17 will be a huge success. I'll hopefully have  
18 more numbers next time to see how much use  
19 we've gotten out of OPUS-Projects from third-  
20 party users.

21 I'll just spend a few minutes  
22 talking about some of the recommendations and

1 activities that we've taken, actions that  
2 we've taken, in the past year or so regarding  
3 workforce. One of the items that came out of  
4 our recent meeting was asking the  
5 administration to lift the hiring freeze and  
6 enable us to hire between 10 and 20  
7 geodesists.

8 Well, we're happy to say the  
9 hiring freeze has ended, although there still  
10 is a process in place for getting approval to  
11 have positions recruited. And that's not  
12 really something unusual. That's been in  
13 place for a while.

14 But we've had success in  
15 recruiting a number of positions in NGS. We  
16 had certainly a number to make up for. So  
17 we're still behind. But in the past year we  
18 were able to fill five positions in the  
19 geodesy series. We had one physical scientist  
20 which is very close to geodesy and then four  
21 IT specialists which is another area that we  
22 definitely needed to rebuild our workforce.

1                   Still a long way to go. We were  
2                   able to advertise for two regional advisor  
3                   positions. One of them was for the region of  
4                   Alaska. And one was for the California-Nevada  
5                   region. At this point in time, it looks like  
6                   we're going to have to readvertise for the  
7                   Alaska regional advisor. But we're primed to  
8                   do that as soon as we're able to.

9                   And then hopefully a selection  
10                  will be announced soon for the California-  
11                  Nevada position. But that's really all I can  
12                  say about that one at this point.

13                 We'll go a long way in our  
14                 stakeholder outreach to be able to have  
15                 individuals in all of the regions that we've  
16                 identified for NGS. Much like Rich was  
17                 talking about, it's really important to have  
18                 people in the area that are addressing the  
19                 concerns of that region and able to be the  
20                 first line of information feedback to  
21                 Headquarters.

22                 While we do have state advisors

1           currently in a number of states, a lot of them  
2           -- not every state is served by a state  
3           advisor. That's why we're moving to a  
4           regional approach. We've got a few regional  
5           advisors currently out there. But we want to  
6           continue to make this a more viable program  
7           and to reach more stakeholders through our  
8           efforts.

9                         We also were able to reassign a  
10           couple of individuals to fill another  
11           geodesist position and another physical  
12           scientist position. And then we have a number  
13           of other recruitment actions that are pending.  
14           Some of them that have been advertised and  
15           we're waiting the selections to be completed  
16           and others that we have in the pipeline.

17                        We've had great success, I would  
18           say, considering where we were two years ago.  
19           But we still have a long way to go realizing  
20           that people continue to retire or in some  
21           cases move on to other opportunities. It's  
22           going to be a constant effort to try to get

1 new blood and more individuals in NGS.

2 Just quickly want to highlight  
3 some of the outreach efforts that we probably  
4 have not mentioned, so it's more focused on  
5 the geodesy side. We've talked often about  
6 MAPPS, the connections that we have with Army  
7 Corps, USGS, other federal agencies including  
8 FEMA through the TMAC.

9 But some of maybe the less well-  
10 known items in outreach that we perform within  
11 NGS involve the bullets that I've listed here.  
12 First of all, I just want to highlight that  
13 we've made great strides this past year of  
14 working and collaborating with the National  
15 Society of Professional Surveyors. So anybody  
16 who has a surveying background and was a part  
17 of ACSM in the past, ACSM is no longer.  
18 That's the American Congress on Surveying and  
19 Mapping. Those efforts are primarily under  
20 the National Society of Professional Surveyors  
21 right now.

22 There was a time where things were

1           in flux. But NGS has regular meetings with  
2           NSPS leadership at least on a quarterly basis.  
3           We have plans to work with them to put on a  
4           geospatial summit in 2015 to talk more broadly  
5           and to a wider audience about our modern  
6           datums that will be rolled out in 2022.

7                         We have efforts under way every  
8           year to ask the surveying community to take  
9           GPS measurements on benchmarks to help us  
10          improve our geoid modeling in areas where we  
11          have not enough data or questionable data.  
12          They've been extremely helpful in building  
13          support for those efforts. We also are being  
14          able to provide them with stories and updates  
15          on things that we're doing and get feedback  
16          from the surveying community through our  
17          affiliations with NSPS.

18                        NGS 101 webinar was also conducted  
19          this year. This was an opportunity to reach  
20          more of I'd say the remote sensing community  
21          and give them an overview on NGS and what we  
22          do as an organization.

1                   We also focused on a user  
2                   community of real time network operators and  
3                   administrators to help them understand more  
4                   about our CORS program and our role in  
5                   managing CORS and how we can help the real  
6                   time network community tie into the National  
7                   Spatial Reference System and be able to ensure  
8                   that the data and the positions that they are  
9                   putting out are in line with the NSRS.

10                   The fourth bullet here, we  
11                   released a series of new YouTube videos on  
12                   datums. So if you want to learn more about  
13                   datums, I definitely encourage you to take a  
14                   look at all four of them.

15                   There's something a little bit  
16                   different about each one of them. One is  
17                   explaining datums in general, about why we're  
18                   going to new datums. They're animated. They  
19                   are done in conjunction with COMET and UCAR  
20                   out in Colorado. So we have some help in  
21                   producing those and we're happy to be able to  
22                   use videos to hopefully explain better some of

1 the complicated things related to datums.

2 We continue to support our height  
3 modernization partners, although earmarks have  
4 more or less have gone away. There is still  
5 a lot of height modernization activities that  
6 are happening across the country. We have a  
7 number of partners who meet on a monthly basis  
8 to talk about height mod activities and needs  
9 and get our stakeholder feedback through them  
10 as well as try to convene a national partner  
11 meeting each year. And this was held down in  
12 Mobile, Alabama at the Disaster Response  
13 Center this past year.

14 And then just a whole variety of  
15 other outreach opportunities where we give  
16 updates as well as gather feedback from user  
17 communities, anywhere from our GIS community  
18 at Esri through the Federal Geodetic Control  
19 Subcommittee where we get feedback from other  
20 federal agencies and a number of international  
21 organizations which I didn't put out because  
22 then I'd have to spell them all out and that

1 would take more slides.

2 In addition to, again, the work  
3 that we do through a lot of our shoreline,  
4 coastal mapping, IOCM efforts, these are just  
5 things that we continue to reach out and get  
6 feedback from our groups.

7 Also as Rich had mentioned, NGS  
8 also participates in this ForeSee customer  
9 satisfaction survey that comes up when you go  
10 online to our website. And we've been doing  
11 that for a number of years. We can certainly  
12 see where people are having the best success  
13 or think where we should improve our products  
14 and services and our web searches for finding  
15 information. That's something that we use on  
16 an annual basis to make sure that we look at  
17 ways to improve the way we deliver our  
18 information. That's been extremely helpful.

19 I think that's it.

20 CHAIR PERKINS: Great.

21 MEMBER BLACKWELL: Almost right on  
22 time. That was my little alarm that went off.

1 Any questions? Frank?

2 MEMBER KUDRNA: Juliana,  
3 registered land surveyors and professional  
4 engineers and virtually all the states have  
5 mandatory two-year continuing education  
6 requirements, generally 20 hours. Have you  
7 incorporated your upgrades in any of those  
8 third-party vendor education elements? That  
9 seems to me that it might be useful.

10 MEMBER BLACKWELL: We have done  
11 workshops in the past where we've been invited  
12 to speak and they've gotten professional  
13 development or education hours at workshops  
14 that are sponsored by state surveying  
15 societies and things like that. So we do have  
16 participants that go and conduct workshops on  
17 whether it's a new way of leveling or new  
18 standards and specifications or datums.

19 I don't have information that I  
20 can share at this moment about anything that  
21 happened recently with professional  
22 development hours. But if that's what you're

1 asking, we do have examples of how we've done  
2 that.

3 MEMBER KUDRNA: Most parties do it  
4 online these days. They have course units  
5 that are developed. So you may want to talk  
6 to some of those vendors about developing.

7 MEMBER BLACKWELL: Doing an  
8 online.

9 MEMBER KUDRNA: Yes.

10 MEMBER BLACKWELL: Thank you.  
11 That's a great suggestion.

12 CHAIR PERKINS: I meant to ask  
13 this of Rich but I forgot. But I want to ask  
14 you the same question, Juliana. Following the  
15 Admiral's statement, what is it that keeps you  
16 up at night and what is your biggest concern  
17 that you'd like the panel to know about?

18 MEMBER BLACKWELL: We don't have  
19 any ships. We have an -- besides procurement,  
20 I would say -- and we talked about this before  
21 -- it's the loss of expertise. So in  
22 addressing the need to fill positions on the

1 geodesy cartographer positions, that is  
2 something that has definitely been a stress,  
3 especially when we hit the hiring freeze and  
4 sequestration and everything else. It was  
5 just not cool to be a fed. I'm still not sure  
6 it's cool to be a fed.

7 I was called a geek I think  
8 yesterday by Margaret.

9 (Laughter.)

10 She's a fed, too, but she's not a  
11 geek. But being a scientist. I think we've  
12 made some progress on that. But there has  
13 still been a drain on the workforce as well as  
14 increased demands on them.

15 Other than if you have  
16 individuals, maybe we can send you recruitment  
17 notices and you can share those with your  
18 communities. We do that through NSPS and we  
19 can certainly encourage further dissemination  
20 of our recruitment activities. But that's  
21 kind of low-level. But I think workforce is  
22 primarily the key thing that worries me.

1                   MEMBER SHINGLEDECKER: Just to  
2                   clarify on that, is it that there aren't  
3                   people coming out that are trained with the  
4                   skills that you need or is it that the federal  
5                   government is having a hard time attracting  
6                   those individuals?

7                   MEMBER BLACKWELL: It's both. I  
8                   mean there really aren't the Ohio State, you  
9                   know, get a degree in geodesy anymore. I mean  
10                  the programs basically don't exist as they had  
11                  20 years ago. So it's more of a broader  
12                  GIS/geospatial, maybe not as much focused on  
13                  the surveying side of things.

14                  But geodesy is not something that  
15                  you necessarily go to school for anymore.  
16                  It's you learn a lot about it and then you get  
17                  the experience or you look for an opportunity  
18                  to develop more of the expertise on geodesy  
19                  and take specific classes. It's not quite the  
20                  regimented educational degree as it has been  
21                  before.

22                  And if you have those skills of

1 science, technical, engineering, math skills  
2 there are probably other opportunities that  
3 are a little sexier right now to go towards  
4 rather than the federal government. But I'd  
5 say that we are getting some candidates that  
6 are not currently federal employees who are  
7 applying to these positions. I think that  
8 helps me sleep a little bit at night knowing  
9 that there are people interested in applying  
10 for these jobs.

11 MEMBER SHINGLEDECKER: To what  
12 extent is that related to foreign nationals  
13 and basically U.S. citizens who have those  
14 skills?

15 MEMBER BLACKWELL: Oh, there are  
16 definitely a lot of folks that are going to  
17 school in those areas that we would be able to  
18 bring them on board if they were U.S.  
19 citizens. But because they are not, we aren't  
20 able to hire them as federal employees.

21 I would say some of our  
22 contracting workforce is able to make use of

1           folks who are not citizens, but in not the  
2           capacity necessarily that we would like to be  
3           able to grow and mature our workforce. Yes,  
4           it's a challenge.

5                        We have visited universities. I  
6           think this past year we've had nine different  
7           events where we've gone to universities and  
8           helped to try to persuade or encourage or do  
9           outreach, whatever the right word is, for  
10          individuals interested in working with NGS and  
11          on different areas of opportunity.

12                      We're also going to be looking  
13          more at co-operative institutes, opportunities  
14          where there will be projects in research  
15          things that we can partner with universities  
16          to do and hopefully get more excitement from  
17          students completing those things as well as  
18          coming to work for us in the future. We do  
19          have some other activities in play right now  
20          where we hope that we'll continue to get more  
21          enthusiasm for coming to NGS.

22                      Other questions? Gary.

1                   MEMBER JEFFRESS:   Juliana, I  
2                   noticed the list that Mike Aslaksen referred  
3                   to on Tuesday I think it was of the federal  
4                   government's rating of observational systems  
5                   and GPS was number one.  I would think OPUS  
6                   would be part of that system now because of  
7                   the use of the surveying profession and people  
8                   who want to have precise positioning obviously  
9                   use OPUS quite a bit.

10                   I was wondering.  Do you do Google  
11                   Analytics to keep track of the amount of use  
12                   that it does?

13                   MEMBER BLACKWELL:  Yes.  We have.  
14                   We have statistics on the number of downloads  
15                   of course data as well as the number of users  
16                   on our CORS, I mean OPUS Solutions.  And  
17                   actually I wrote a note to myself that maybe  
18                   the next time I can incorporate some of those  
19                   usage statistics.  You'll see we have quite a  
20                   number of individuals who are using our data.

21                   OPUS is a tool.  So it's not  
22                   really an observation system.  But certainly

1 the CORS network is an observation system that  
2 counts as an observation system and some of  
3 the different no-observation things that we  
4 report up to and provide. But I can make  
5 those statistics available, too. But it's  
6 definitely in high use.

7 MEMBER JEFFRESS: It's a tool that  
8 has made surveyors a lot more efficient.  
9 There's a huge amount of economic value there.

10 MEMBER BLACKWELL: And if you said  
11 that each OPUS solution is worth \$600 or  
12 whatever we estimated a few years ago. I mean  
13 it's in millions of dollars of return on  
14 investment for what it costs to run that tool.

15 MEMBER JEFFRESS: I did see one  
16 metric in The Institution of Surveyors New  
17 South Wales Division publication last year  
18 that when the government shutdown happened  
19 their users went up by 5,000 in the AUSPOS  
20 software which does the same thing.

21 MEMBER MILLER: Do you have the  
22 resources, planes and sensors and so forth

1           that you need to do the surveys that you need  
2           to do?

3                         MEMBER BLACKWELL: We have some.

4                         (Laughter.)

5                         Mike, do you want to stick your  
6           neck out on that one?

7                         MR. ASLAKSEN: I would say the  
8           answer to that is yes as long as we can keep  
9           the technology up to date. There are  
10          capacities in the private sector again that  
11          think we need to have tens of their planes or  
12          aircraft. As long as the private sector keeps  
13          up with the technology, I think that's where  
14          we leverage our capacity.

15                        MEMBER BLACKWELL: And I'll just  
16          add to that. Besides the coastal mapping, the  
17          shoreline work, from the GRAV-D perspective we  
18          do not have a designated NOAA aircraft for the  
19          airborne gravity collection.

20                        We do partner and continue to  
21          partner with a number of federal agencies,  
22          BLM, NGA, Navy, to pay for but use their

1 aircraft for different projects. And we have  
2 been very successful in contracting out. And  
3 the data that was collected for SANDI was  
4 contracted out to Fugro.

5 We were able to utilize a number  
6 of different of platforms. It may not be the  
7 most efficient, but we certainly have worked  
8 hard to try to build the level of support from  
9 federal and private sector as well as NOAA  
10 aircraft to help us accomplish the airborne  
11 gravity collection. So we're going to  
12 continue to work that route. Thank you.

13 (Applause.)

14 CHAIR PERKINS: Rich, do you want  
15 to provide us a nightmare?

16 MEMBER EDWING: Yes. So I haven't  
17 gotten sleep in about 15 years I think because  
18 I've been working on the PORTS funding issue.

19 (Laughter.)

20 And it's my career goal to get  
21 that to a sustainable business model. We were  
22 at the brink I think this last year. There

1           were three ports that were I think in  
2           financial distress. One was New York/New  
3           Jersey. Delaware Bay another very large port  
4           didn't have the funding. And then a smaller  
5           one in New Haven was in the same situation.

6                         Those all fortunately got  
7           resolved. But that's not going to keep  
8           happening that way.

9                         I think everybody agrees that it  
10          provides a valuable service to the nation. I  
11          think last time I looked there is some irony  
12          in that. Actually, over 60 percent of the  
13          dollars used to establish these systems were  
14          federal dollars either through earmarks or  
15          supplemental appropriations. Or now most  
16          people are going out and getting grants to  
17          establish these. Jacksonville was established  
18          with a FEMA grant, Port Security grant. And  
19          that's about the third or fourth one.

20                        There's been a lot of investment  
21          made. We need to get that investment into a  
22          sustainable place. That's my nightmare.

1 CHAIR PERKINS: Not an unexpected  
2 answer.

3 MEMBER EDWING: Yes.

4 CHAIR PERKINS: But thank you.  
5 We'd like to ask that we shortened lunch to 30  
6 minutes and do it as a working lunch so that  
7 we can maximize our time together.

8 (Off record comments.)

9 PARTICIPANT: So do you want to  
10 allow for a 30-minute break or go straight  
11 into lunch?

12 CHAIR PERKINS: Go straight into  
13 lunch and try to get into the heavy part of  
14 deliberations in 30 to 45 minutes from now.

15 Yes, and we have a couple of  
16 presentations that we need to make. So we  
17 have two concurrent milestones staring us in  
18 the face. One is the retirement of Kathy  
19 Watson from her service at NOAA and the other  
20 is Mr. Wellslager leaving after two full terms  
21 on the panel.

22 RDML GLANG: We want to recognize

1 Matt Wellslager. Matt, come on up.

2 (Applause.)

3 You guys may not know it, but as  
4 members of a federal advisory committee,  
5 you're taking part in our very tortured  
6 democratic process. And that's important  
7 because it's not just going to the voting poll  
8 once every two or four years. It's also  
9 taking part in the community level.

10 In this case, the thing about a  
11 FACA is you're taking part in the democratic  
12 process that helps inform our federal  
13 government. Matt, I want to thank you and I  
14 have a short letter I want to read.

15 Thank you for your leadership and  
16 dedication to the National Oceanic and  
17 Atmospheric Administration's Hydrographic  
18 Services Review Panel. Your seven and a half  
19 years of service to the panel are a noteworthy  
20 achievement. And your leadership roles during  
21 that time as both chair and vice chair are  
22 very much appreciated.

1                   The federal advisory committee  
2                   process which guides our panel is just one  
3                   mechanism through which citizens who also  
4                   happen to be technical experts such as you can  
5                   engage in our nation's democratic processes.  
6                   Your willingness to engage and take an active  
7                   role in our democracy to make our nation's  
8                   government more effective is an outstanding  
9                   example of your citizenship.

10                   I wish you well in your future  
11                   endeavors and hope you continue to advocate  
12                   for NOAA's mission to support safe navigation,  
13                   the Marine Transportation System, national  
14                   security, the economy and the environment.

15                   You can frame that or you could  
16                   put it under your coffee cup. Thank you,  
17                   Matt.

18                   (Applause.)

19                   Because as you know we can't re-up  
20                   Matt. This is it.

21                   MEMBER WELLSLAGER: I'm done.

22                   RDML GLANG: With that statute, he

1           has served his term. Thank you very much,  
2           Matt.

3                         MEMBER WELLSLAGER: Thank you. I  
4           appreciate it.

5                         RDML GLANG: I hope everyone takes  
6           a moment to thank Matt. Hopefully, we'll hear  
7           you on some of our upcoming calls. Hopefully,  
8           you'll be able to join us.

9                         CHAIR PERKINS: Join the groupies.

10                        (Off microphone comments.)

11                        RDML GLANG: I have one more quick  
12           presentation before I turn it over to our  
13           Chair, Mr. Perkins. In the government, we  
14           give out service awards for years of service  
15           that federal employees work for us. And I  
16           think it's five-year increments.

17                        This recognizes -- you're going to  
18           love this. This is the alpha and the omega --  
19           35 years of service in the Government of the  
20           United States, Kathy Watson.

21                        (Applause.)

22                        And that's September 3rd. Thank

1           you.

2                       MS. WATSON: Thank you very much.

3                       RDML GLANG: Kathy, this is the  
4           panel's opportunity to recognize your  
5           dedication and your perseverance to keeping me  
6           on task and focused and getting ready for  
7           these many, many meetings and for working with  
8           quite a few panel chairs over the last eight  
9           years. It's been eight years, right?

10                      MS. WATSON: Yes, eight and a  
11           half.

12                      RDML GLANG: Eight and a half.  
13           And I apologize for all the times that you  
14           came to me and stuck your head in and said,  
15           Admiral, I need to talk to you. And me  
16           rolling my eyes at you.

17                      MS. WATSON: Yes.

18                      RDML GLANG: But certainly without  
19           your energy and your dedication and  
20           enthusiasm, this panel would not be what it  
21           is.

22                      MS. WATSON: Thank you.

1 RDML GLANG: I thank you and I  
2 hope all the panel members.

3 (Applause.)

4 CHAIR PERKINS: Off the record.

5 (Whereupon, the above-entitled  
6 matter went off the record at 12:08 p.m. and  
7 resumed at 12:38 p.m.)

8 CHAIR PERKINS: All right. We  
9 have the results of the travel logistics lunch  
10 time exercise. Mr. Kelly and I have got  
11 travel at 1700. The rest of you are 1900 or  
12 later. So with that, Ed and I will be the  
13 first ones to turn our backs and walk out the  
14 door.

15 (Laughter.)

16 And that will happen because  
17 Tiffany tells me if I make her change my  
18 flight plans one more time she's going to fire  
19 me.

20 HSRP COMMITTEE DISCUSSIONS AND DELIBERATIONS

21 CHAIR PERKINS: We've got really  
22 hard work in front of us and a finite amount

1 of time to try and at least get to a point  
2 that we can move forward from when we're not  
3 all sitting here together.

4 And I also want to be respectful  
5 of that fact that 22.5 percent of our panel  
6 aren't present and able to participate in  
7 these deliberations with Lawson and Deborah  
8 and David and Carol. With that, I just want  
9 to make sure that we're clear and transparent.  
10 We won't reach a final conclusion today  
11 because we want to have the input from the  
12 panel members that aren't here as well. But  
13 I want to have us close to hitting that target  
14 as we can and hopefully have some consensus.

15 Lynne is going to help us get some  
16 information on the screen to hopefully keep us  
17 focused and thought-provoking. When you have  
18 motel disease, you lose your sleep at night  
19 over the fleet modernization plan. That was  
20 a very clear and understandable message. And  
21 thank you for bringing it back to our  
22 attention.

1 RDML GLANG: Just to clarify, I  
2 was specifically concerned about our capacity  
3 for going to sea up in the Arctic and Alaska.  
4 That's solely dependent on those two ships  
5 right now. Maybe better not to bring in the  
6 whole fleet modernization.

7 CHAIR PERKINS: No, I would just  
8 guess just referencing the briefing we had  
9 from Admiral Glang with the fleet  
10 modernization plan.

11 RDML GLANG: All right.

12 CHAIR PERKINS: It has been a  
13 little while since we talked about that. And  
14 Lawson would be glad that we have not gone  
15 through three days without talking about the  
16 Arctic.

17 MEMBER KUDRNA: The Great Lakes  
18 replacement discussion.

19 (Laughter.)

20 CHAIR PERKINS: Who would like to  
21 lead the discussion?

22 MEMBER BARBOR: Not to lead, but

1           maybe set the expectations. How many  
2           recommendations would you think you would wish  
3           as a panel?

4                           CHAIR PERKINS: That's great. I  
5           think the messaging that we've heard and I  
6           think what we have some consensus on is that  
7           our list has maybe been too long and not at  
8           the right frequency or fidelity. If we came  
9           away with three recommendations, if we set a  
10          goal of having and trying to keep our priority  
11          list that goes forward from this meeting to  
12          the three most important items, I think that's  
13          good. I'm open to a little wiggle room there.

14                           Yes, Ed.

15                           MEMBER KELLY: I think you can  
16          always successful if you aim low enough. And  
17          I don't know if we want to lock ourselves in  
18          before we even start to only three.

19                           So I would say, just my approach  
20          and that's me and I'm easily overruled, is to  
21          throw some of the things on the wall. Then we  
22          can see what sticks and what we need to let

1 fall off. Then we can boil it down.

2 And maybe the answer is one very  
3 cogent thing or maybe it's five or six. I  
4 just feel very uncomfortable saying we have  
5 three good ideas. I don't know. We might  
6 have fewer. We might have more.

7 I don't want to open the gate with  
8 saying we're going to limit ourselves to  
9 somewhere between two and five or two and four  
10 or something. And that's it.

11 I think from my perspective I  
12 heard a lot of things. And I think we need to  
13 maybe get some of the issues on the table --  
14 and again this is just my suggestion -- and  
15 then try to refine into either some strategic  
16 or tactical approaches as to what we might  
17 think. Then we can see what we have and  
18 decide where our focus should be for the  
19 recommendation itself to ferret out those  
20 recommendations from either strategic or  
21 tactical points that we can put up on the wall  
22 there.

1 CHAIR PERKINS: Okay. Yes, Joyce.

2 MEMBER MILLER: And I think we  
3 should also take a look at -- Susan did this  
4 wonderful chart about what's been talked about  
5 previously. And we've heard that there's been  
6 a lot of action on some things, good action.

7 But if they were once again  
8 brought up here at this panel like the ENC  
9 first and eHydro we might just want to not  
10 make that one of our strong recommendations,  
11 but just mention those things that were once  
12 again brought to our attention as being  
13 important in this area.

14 CHAIR PERKINS: Yes. As a point  
15 of clarification I guess I see that we're  
16 going to produce two different things from  
17 this meeting. We're going to produce some  
18 clear recommendations and then we will produce  
19 a report of the meeting that speaks to that  
20 longer list of what we talked about, what we  
21 heard. Two different things. There will be  
22 a place for everything somewhere.

1                   MEMBER SHINGLEDECKER: I would  
2                   suggest as we're going through this discussion  
3                   of recommendations to also keep in the back of  
4                   your mind one other level of engagement and  
5                   that would be issues that might be worthy of  
6                   further exploration through working group,  
7                   things that are clear cut that are  
8                   recommendations. But then are there other  
9                   issues that we need to dig deeper on with  
10                  close consultation with the office directors  
11                  so that we know that we're digging in the  
12                  areas you would like us to and that would be  
13                  productive.

14                  MEMBER KELLY: And I would also  
15                  add that I think it's incumbent upon us to  
16                  produce something that is going to be resident  
17                  both for the Administrator and to potentially  
18                  the Congressional people that view this. I'd  
19                  like to make sure that we get something that's  
20                  going to resonate and have some importance to  
21                  them as well.

22                  CHAIR PERKINS: Which do we first?

1 Items for working group assignment and  
2 consideration first?

3 MEMBER SHINGLEDECKER: I would  
4 just throw the ideas out there and we can keep  
5 the brainstorming open and flowing. Then we  
6 can prioritize and move around.

7 CHAIR PERKINS: We have a flip  
8 chart and we have a pen and we will have  
9 people help write those down. Round robin.  
10 Somebody goes first.

11 MEMBER JEFFRESS: I'd like to  
12 start off with a suggestion that we really  
13 charge NOAA to replace the assets, the fleet  
14 assets, that are going to service the Arctic  
15 in 10 or 20 years time.

16 MEMBER MILLER: And I think along  
17 with that I would make a broader category of  
18 the ill-ability of ships and include what we  
19 learned about the difficulties that are  
20 happening this year and I know from the past  
21 have happened for whatever reasons that ships  
22 right now aren't available to do surveying

1           because of whatever.

2                       I mean the overall availability of  
3           ships has been -- I've worked on NOAA ships  
4           for the past many years. And it has been a  
5           continuing issue over many, many years.

6                       And it's not something that  
7           because OMAO is in charge of it. It's not  
8           something that Coast Survey has much control  
9           over really. It's a much higher issue within  
10          NOAA.

11                      So I think it's not just there's  
12          not going to be a ship in ten years. There  
13          are three ships this year and it sounds like  
14          they've had almost no sea days. That really  
15          hurts the productivity. I would make it a  
16          broader category to the availability of ships  
17          overall including replacement of ships, but  
18          also efficient operation of what they've  
19          currently got.

20                      CHAIR PERKINS: I think they're  
21          two completely different items. But it's  
22          certainly an important item, the number of

1 days at sea. The long-term capital investment  
2 plan for new ships and then the short-term  
3 operational efficiency and full utilization.

4 MEMBER SHINGLEDECKER: I don't  
5 know if this is within fleet or if this is  
6 different but the discussion about the use.  
7 This probably isn't the right words, but  
8 improving the process for use of UAVs or  
9 surface AVs. I don't know if that goes in  
10 with technology or if that goes into assets  
11 for RN data.

12 CHAIR PERKINS: Non-traditional  
13 platforms. Does that put a wrapper around it?

14 MEMBER JEFFRESS: We could qualify  
15 it.

16 MEMBER KELLY: In fact as far as  
17 the fleet assets go and I did hear the  
18 Admiral's thing we have a unique and specific  
19 requirement for those two vessels up in the  
20 Arctic. I think we might want to frame so  
21 that we get the most response to this.

22 There are a couple of sexy items

1 out there. The Arctic is certainly one of  
2 them. There is a virtually unlimited economic  
3 potential up there. There's a distinct need.  
4 So there's a lot. The Arctic is a hot button.

5 What I think we need to do is  
6 maybe couch and break some of these asset  
7 requirements into several pieces in order to  
8 support and further the economic and national  
9 security interests of the Arctic region. NOAA  
10 is a key element bump, bump, bump. And we  
11 need to ensure that the proper floating assets  
12 will be in place to continue the work that has  
13 been initiated and will be required in the  
14 future.

15 And that takes care of those two  
16 ships up in the Arctic with a hot button,  
17 economic and relevant national security  
18 relevance to the importance of the data we can  
19 develop with those vessels. That's what  
20 people will hear.

21 If we say we want to buy some more  
22 boats, they're going to hear these guys want

1           some more boats. That doesn't motivate people  
2           very well.

3                           I think some of it might be the  
4           way we couch and write some of this. What we  
5           want to do with those vessels is to ensure  
6           that we have the proper floating assets to  
7           gather the data necessary to protect and  
8           enhance our economic opportunities up there  
9           that NOAA is so necessary and crucial to  
10          obtaining and developing.

11                          I would kind of write it that way  
12          because that's what people are going to be  
13          listening to. And it supports that Arctic  
14          mission.

15                          The other piece as far as data  
16          collection, we might want a group. We could  
17          bergadot one or two of those to say that we  
18          need to evaluate existing and future potential  
19          data collection assets such as -- and then  
20          drop it down to the fleet itself, to the  
21          boats, the launches, etc., to evaluate the  
22          proper ratio of what needs to be internally

1 owned and operated, as to what might be  
2 contracted.

3 The other piece could be as we  
4 continue down for shared partnership  
5 opportunities and then new and relevant I  
6 think such as you said the UAVs or whatever.  
7 I'd like to break the shallow water thing,  
8 shallow water and coastal into a separate  
9 piece. That speaks coastal capabilities and  
10 it talks to resilience. Again, it's a hot  
11 button word that people want to hear that  
12 somebody is doing.

13 People are wanting to throw money  
14 at the Arctic and they're willing to throw  
15 money at resilience, coastal resilience. And  
16 if we can couch and point out how effective  
17 and necessary and the professional  
18 capabilities of NOAA can be brought, can be  
19 best brought, to bear in these areas, that  
20 opens the door to preserving, protecting and  
21 enhancing that NOAA capability.

22 I think we can try to break

1           several strategic things like the Arctic and  
2           shallow water and coastal data development and  
3           then possibly also bring in a couple of  
4           tactical things.

5                        I'm talking too much for the new  
6           guy on the block.  Somebody's got to start  
7           throwing things at the wall.  There are a  
8           couple of them that are out there.  And I  
9           think some of the detailed things that we get  
10          to might not be well received is all I'm  
11          saying.  Any time somebody says give me more  
12          money.  I want to buy more toys, people say  
13          ah-ah.  And they push that away.

14                      But if you can tie that into  
15          economic development or national resiliency or  
16          national security issues up in the Arctic  
17          area, they're very responsive articles.  I  
18          think people will respond to that and say  
19          "Yes, we want to do that stuff.  Now tell me  
20          again.  What is it that you need?"

21                      MEMBER MILLER:  I would just like  
22          to suggest that we keep this in mind as we're

1           doing this. This was Dr. Callender's. I  
2           don't know if we want to put it up on the  
3           screen or something. But we need to focus on  
4           that.

5                        The other thing, just in response  
6           to Ed, the availability of ships is -- if I'm  
7           not incorrect -- those are both Arctic ships  
8           or those are both Alaska survey ships that you  
9           were talking about.

10                      RDML GLANG: Yes, they are. Ice-  
11           strength.

12                      MEMBER MILLER: So the two ships  
13           that didn't get many sea days this year are  
14           Arctic assets.

15                      VICE-CHAIR HANSON: If I could on  
16           the planning piece there, I want to -- I  
17           wouldn't make the changes. I just want to  
18           throw this out here and see what other people  
19           think.

20                      I really think preparing that list  
21           of survey ready projects and capability or  
22           whatever you want to call it needs to go first

1 before you start talking about any assets.  
2 The question you would get asked and as Ed was  
3 alluding to is why do you need any ships.  
4 What are we doing this for?

5 We have a good answer I think.  
6 But you have to go through the progression if  
7 you're going to develop the plan, a strategic  
8 plan. And I think as part of that discussion  
9 also you need to mention the word private or  
10 industry capability as well. Whether you  
11 truly understand current industry capability  
12 or how you're going to attract private  
13 industry investment to get the assets you're  
14 going to need to accomplish the goals of the  
15 most wanted plan.

16 We're behind in terms of the  
17 acquisition. You're going to catch up. Part  
18 of that is with no assets. A lot of that is  
19 going to have to be non no assets. So how are  
20 you going to track that investment?

21 You've got to have work for people  
22 to do. You've got to have something that's

1           consistent. And that's part of good  
2           management of trying to accomplish those  
3           survey-ready projects. I think the word  
4           industry or private is going to need to be  
5           part of that discussion as well to be an  
6           honest evaluation.

7                           CHAIR PERKINS: Yes Lynne.

8                           MS. MERSFELDER-LEWIS: Where would  
9           you put that?

10                          VICE-CHAIR HANSON: My thought is  
11           just to put the planning cycle. I'm sorry.  
12           Go down farther. You have the survey ready.  
13           I would put that part first. Prepared server  
14           ready or survey ready project lists. And it  
15           sounds daunting. I will tell you when we did  
16           the Corps with it six years ago it took them  
17           almost eight months to develop a list. And  
18           the reason it took them so long to develop a  
19           list of what they would do if they had all the  
20           money and they needed to do what they'd been  
21           asked to do is the response that we got. And  
22           it's true.

1                   But there's a whole generation of  
2                   people in the Corps of Engineers that have  
3                   never been asked that question. They were  
4                   used to earmarks. They were used to getting  
5                   20 percent of what they asked for or half of  
6                   what they got. They'd never been asked if you  
7                   get all the money what are you going to do  
8                   with it.

9                   Don't look at that as an  
10                  impediment. It can take some time. But it  
11                  becomes the basis for every appropriation  
12                  request you get in the future.

13                 MEMBER KUDRNA: I may not have the  
14                 right words for this, but let me give you the  
15                 concept. Ken, Ed and I all have a little  
16                 discussion of this. It seems out of this  
17                 meeting there was a message regarding the  
18                 PORTS and their ability to fund their  
19                 expansion regarding the Corps of Engineers'  
20                 lack of budget to do dredging activities. The  
21                 issue of U.S. infrastructure investment is a  
22                 major issue and encompasses both of those

1           topics and other topics and has relationships  
2           obviously to NOAA because NOAA would be  
3           providing the support for much of that.

4                       I look at the recommendations as  
5           what would we really like the Secretary to do.  
6           And one thing might be to engage in a dialogue  
7           with the Secretary of Commerce about a U.S.  
8           infrastructure investment program. That's  
9           something that I think would relate to those  
10          issues that were expressed by this and other  
11          PORT districts and the Corps of Engineers in  
12          terms of their drinking activity and the  
13          support associated with it. I think that  
14          would be -- I don't have the exact words  
15          crafted -- a topic that would be a logical  
16          thing to physically ask the Secretary to deal  
17          with.

18                      VICE-CHAIR HANSON: I don't think  
19          that would be anything new to her. At the  
20          same time, I think she needs to hear what it  
21          means to us. And you start off with thank you  
22          for all you've done to advocate. We know

1           you're going to continue to do this in the  
2           future. As a result, you're going to see our  
3           nation be better prepared to grow the National  
4           Export Initiative, Coastal Resilience and all  
5           those issues. It could be a fairly short  
6           conversation and be also very powerful.

7                         DR. BRADLEY: I'll throw out there  
8           for awareness. It's a really big issue,  
9           Frank. Within the CMTS, there is a working  
10          group called Infrastructure Investment  
11          Integrated Action Team. So they are talking  
12          about some of these issues. It's part of the  
13          mid-level staff to really get into the meat of  
14          it especially with the funding situation that  
15          we're in. I think that's part of the goal for  
16          that principals meeting that I talked about  
17          for next month is to try to tee up some of  
18          those issues at a high level so that within us  
19          middle-of-the-road folks can figure how  
20          exactly we can help with some of these things.

21                        MEMBER KUDRNA: But I think if you  
22          support the independent Federal Advisory

1 Committee it's probably the same thing.

2 There's a need for something like that.

3 DR. BRADLEY: Yes.

4 MEMBER WELLSLAGER: Scott, I'd  
5 like to build on what Frank was just saying  
6 especially about the Corps of Engineers. It  
7 might be good in a recommendation that the  
8 NOAA leadership, albeit Dr. Sullivan or higher  
9 up, reinforce to the Corps of Engineers  
10 leadership the critical importance of the  
11 hydro project.

12 There's a lot of work that's being  
13 done now and that could be brought in to the  
14 NOAA charting. And it would really benefit us  
15 with what needs to be done. And it could  
16 continue the development of that eHydro.

17 I think we should really think  
18 about doing something like that. And it  
19 follows along the same path of what you all  
20 were talking about before. It's a thought.

21 MEMBER MILLER: One of the items  
22 from this list or two of the items, what

1           opportunities might exist for a new business  
2           model, e.g. PORTS? Are there opportunities  
3           for partnerships? In terms of eHydro is one  
4           of them, Army Corps.

5                           I'm just wondering at what level  
6           we want to do that. The partnership thing,  
7           eHydro PORTS, there was a recommendation from  
8           Alaska about better partnering and so forth.  
9           Do we want to include some element of that  
10          partnering new business models in that that  
11          was a list?

12                          MEMBER WELLSLAGER: Are we talking  
13          about service level agreements or memorandum  
14          of understanding?

15                          MEMBER MILLER: We also heard  
16          today about the prescribed mission assignments  
17          not happening. It's not just eHydro. It's a  
18          broad issue. There are many items with Army  
19          Corps in particular. But I think it's a broad  
20          issue of effectuating. Wasn't that it?

21                                  (Laughter.)

22                                  But making the partnerships. He

1 was talking about new partnerships. But  
2 making the partnerships that exist in fact in  
3 some way more functional and sort of  
4 facilitating partnership on NOAA wide level as  
5 opposed to every little project having them.  
6 I'm just trying to put in some of what we were  
7 asked to answer.

8 CHAIR PERKINS: These feel to me  
9 like they are elements of a strategy and not  
10 a strategy onto itself and if we can focus on  
11 that larger. We've been told a couple of  
12 times we don't need to tell them how to do it.  
13 We need to help advise them on what to do.  
14 And we're a very technical and analytical  
15 group here. But I think if we can try to --  
16 I don't think we've got to get so deep into  
17 some of this in order to focus on the bigger  
18 message.

19 MEMBER SHINGLEDECKER: I could see  
20 a broad level recommendation on looking to  
21 make partnerships more effective and then  
22 providing a couple examples of in our

1 discussions we heard two examples in  
2 partnering with FEMA. The prescriptive  
3 mission assignment and helping to make that  
4 happen is one example of how that partnership  
5 between the agencies might be made more  
6 effective and then with Army Corps and eHydro.  
7 So it's still high level recommendation with  
8 a couple of examples how we came to that.

9 MEMBER WELLSLAGER: But it's also  
10 high level enough that you're not telling them  
11 what to do. It's just prescribing this is a  
12 possibility for consideration. These are  
13 legacy things that we're looking at trying to  
14 create now.

15 CHAIR PERKINS: Partnerships  
16 beyond government to government I think are  
17 important.

18 MEMBER SHINGLEDECKER: If you want  
19 to look at partnerships, looking at my list of  
20 things, I have explore ways to facilitate data  
21 transfer for broader use. And I won't tell  
22 anybody how to do anything more than that.

1 But the data from industry, I thought that the  
2 comments that Jason made at the end of  
3 yesterday were great comments of looking at  
4 the wind industry and their data and a number  
5 of different data sources and just finding a  
6 way to use that data whether it's an  
7 authoritative dataset. Great. Sounds like we  
8 know what to do with that. If it's a non-  
9 authoritative or a subpar dataset finding  
10 another way to use that whether it's like  
11 active captain or something else.

12 RDML GLANG: Can I just offer an  
13 observation, Scott?

14 CHAIR PERKINS: You absolutely can  
15 offer.

16 RDML GLANG: We were talking about  
17 the interagency partnerships and how the panel  
18 might support that. I think in the case of  
19 the FEMA PSMAs, what we described to you  
20 what's going on there, and in the case of the  
21 Army Corps partnership, certainly the Army  
22 Corps partnership works at the working level

1 and we're making progress.

2 But if we turn it around and we  
3 say what are the impediments to these to fully  
4 actualizing these partnerships in the FEMA  
5 case we're sort of wrapped up in  
6 interpretative legalese. In the Army Corps  
7 case at the high level, one of the impediments  
8 is the ability for NOAA to receive funds from  
9 the Army Corps. And this comes up again and  
10 again. But my personal sense is that NOS  
11 doesn't have the stamina to engage alone on  
12 this.

13 While we hear you about engaging  
14 in partnerships, both interagency and  
15 external, we do run into these impediments,  
16 these roadblocks, along the way. And I'm not  
17 sure those necessarily reach the ears of the  
18 Administrator. Should they?

19 It would be nice to get a little  
20 sympathy from up there something. These  
21 partnerships aren't that straightforward.  
22 Just an observation. Turn it around a little

1 bit.

2 MEMBER MILLER: And PORTS is  
3 another partnership, defining partnerships,  
4 and making them work and making money flow  
5 back and forth in terms of how to fund those.  
6 It's a very similar thing.

7 I mean the PORTS thing, there are  
8 partnerships all over the place with PORTS and  
9 universities and so forth. But what's the  
10 problem with it? It's funding. It's getting  
11 funding to support that.

12 MEMBER KUDRNA: Not always. You  
13 made a very good point, Admiral. In terms of  
14 partnerships, if you guys could do it, you  
15 would do it if it's within your level of  
16 relationship.

17 But there are cases as the two you  
18 just cited that would need to be worked out at  
19 a higher level. And that may be something we  
20 need to make a recommendation on because  
21 that's something if we'd elevate an issue to  
22 Secretary level, the Secretary could pick up

1 a phone and talk to the Corps and talk to HUD.  
2 And we could give a couple of examples of  
3 items and might be able to resolve that  
4 partnership issue that is a good idea.

5 RDML GLANG: The ability to take  
6 Army Corps money is at the Commerce level  
7 because that's where our legal support comes  
8 from. But if the Administrator of NOAA were  
9 to say make it so, they would figure out how  
10 to make it so.

11 MEMBER KUDRNA: Yes. Right. And  
12 that's what I'm suggesting. Maybe our  
13 recommendation is an action by the  
14 Administrator and to cite a couple examples of  
15 where that would be helpful in terms of  
16 partnerships, the HUD and the Corps.

17 MEMBER MILLER: I think it's  
18 almost any other Federal agency that NOAA is  
19 not able to take money from. And there's very  
20 little cross funding in NOAA. I mean they had  
21 trouble taking the money from DoD. I think  
22 it's a very high level issue, the difficulty

1 of getting funding in those partnerships.

2 MS. MERSFELDER-LEWIS: DOI can  
3 readily and easily give NOAA money. It's Army  
4 Corps of Engineers and DoD combined mechanism.

5 CHAIR PERKINS: FEMA falls under  
6 DHS. Are we saying our problem lies with DHS  
7 and DoD?

8 DR. BRADLEY: Scott, can I promise  
9 you to get you guys a written summary of the  
10 funding agreement struggles I guess with Army  
11 Corps in particular because I think that has  
12 been a challenge? That's been an issue that  
13 I've been made aware of in the past. And my  
14 understanding is that we can establish funding  
15 agreements with Army Corps.

16 But it takes a long time to go  
17 through. It might take nine months to get it  
18 through. By then, it's too late to do the  
19 work. Or it's just not time effective and  
20 it's not a NOAA problem as far as I know.  
21 It's a Department of Commerce problem,  
22 something about the legal review.

1                   But I don't know enough about it.  
2                   But I know just that little bit. I'm happy to  
3                   look into it and provide some more  
4                   information. I'm not familiar with how we do  
5                   other agreements with other agencies either.  
6                   So I can do a little bit of research into that  
7                   as well if you guys want to learn more before  
8                   you put anything in the letter.

9                   MEMBER MILLER: We could craft a  
10                  statement. You could get us information and  
11                  we could decide whether that made sense or  
12                  not.

13                 DR. BRADLEY: Sure.

14                 MEMBER JEFFRESS: Aren't there  
15                  examples where NOAA does accept funds from  
16                  other agencies like the FAA for airport  
17                  mapping?

18                 MEMBER BLACKWELL: Yes.

19                 MR. ASLAKSEN: Painfully so.

20                 MEMBER BLACKWELL: There are  
21                  positive examples of how it does work. I mean  
22                  we again for GRAV-D we've got agreements where

1           there is transfer of funds even with USGS,  
2           BLM. Again, those are Interior. But Naval  
3           Research Labs, that's a little bit different.  
4                        Each one of them is unique though.  
5           I think we've done it with Army Corps. But I  
6           think we've had some success, but I don't know  
7           if it's recent success.

8                       MR. ASLAKSEN: Before we had  
9           contracts with the Corps contracting for some  
10          the mapping we did at NGS. I mean it can be  
11          done. It just takes time. You have to put  
12          effort to it.

13                      Point of example, Coastal Services  
14          Center here in Charleston takes a lot of money  
15          from the states to do mapping. But they have  
16          a whole team that works on those agreements  
17          and keeps them alive and works with the  
18          attorneys in order to care and feed them. And  
19          when they're due to expire, they work on that  
20          a year after to renew that agreement to keep  
21          it going.

22                      It take resources. Unfortunately,

1 we all have lots of jobs we do. But that one  
2 could take awhile.

3 MEMBER BLACKWELL: Yes, and with  
4 FAA and our state partnerships for the cost  
5 share for state advisory program, I mean we  
6 have a number of agreements with funds  
7 associated with them. And, as Mike said, you  
8 just have to plan for it take a long time.

9 CHAIR PERKINS: I guess I'll try  
10 to circle that back. Again, wouldn't this be  
11 an element of a national mapping strategy that  
12 one piece of our national mapping strategy  
13 would be to have the appropriate agency to  
14 agency data share, cost share agreements fully  
15 in place to facilitate a better use of the  
16 limited available funds? Lynne, if you could  
17 put that as a bullet point under our national  
18 mapping strategy that we're working to crack.

19 MEMBER SHINGLEDECKER: This is  
20 just a question of clarification for Mike. On  
21 the strategy, it sounded to me like the  
22 strategy is completed and Margaret was saying

1           that we didn't have a national mapping  
2           program.

3                         MEMBER ARMSTRONG:  Yes, that's  
4           what I heard, too.

5                         MR. ASLAKSEN:  Well, it's getting  
6           to this whole issue of money and sharing.  And  
7           that is an example in my mind where we have  
8           overlapping areas of interest between  
9           agencies, maybe different requirements from a  
10          mapping standpoint.  But the approach has been  
11          to come in with common standards and fund  
12          those agencies to complete those missions  
13          separately with the same kind of requirements  
14          of collection of the data so we can have  
15          multi-use of that data.

16                        That will work for the strategy  
17          that I pointed to that Margaret didn't see  
18          that exists is that we've agreed on data  
19          standards to collect that data.  It might be  
20          more time, more processing, whatever.  But at  
21          the end of the day we have multi opportunities  
22          that you're feeding other agency's

1 requirements.

2 Whether they're funded to do it or  
3 not, that's another issue, too. It's that  
4 when we go out and collect data we're  
5 collecting to make sure we know the Corps  
6 standards and visa versa.

7 But then there are other users out  
8 there like I'm looking at the Florida Keys  
9 right now, the Fish and Wild Service has not  
10 put a dime into this collection. But they're  
11 going to get use of this data.

12 I don't know if this answered your  
13 question. But I was just thinking about it as  
14 well. Even that approach with National  
15 Elevation Program and some of the things we're  
16 talking about there, we're talking about joint  
17 list with the GS and NOAA and other  
18 individuals. It's more of an agreement that  
19 this is the standard. We'll collect according  
20 to those standards and let's coordinate and  
21 we'll reply.

22 Ashley Traver was working on that

1 and has been working on a joint budget  
2 initiative for both Interior and Corps.

3 He'll probably talk about the OMB  
4 looks at that. He had an opportunity at OMB  
5 to find it even though we're not in the same  
6 place as Margaret said as the rest of the  
7 science agencies. He's talking about the GS  
8 and NOAA. His request.

9 CHAIR PERKINS: Yes, Andy.

10 MEMBER ARMSTRONG: What Ed  
11 resonated with me and I think we're starting  
12 to wander away from that again, too. I liked  
13 his idea of picking the key overarching  
14 themes. I think one he said was the Arctic  
15 and the other was sort of shallow water and  
16 connection with resilience and then putting  
17 some for instances under that, but focusing on  
18 a major piece. For the Arctic, a major piece  
19 would be the Arctic ships.

20 And for resilience the major piece  
21 would be the shallow water bathymetry. And  
22 under shallow water bathymetry, you might

1 start ticking off look at crowd sourcing, look  
2 at new technology, look at industry  
3 partnerships, look at state partnerships. And  
4 have maybe three of those key themes.

5 Another one might be the need to  
6 deliver services for a modern marine industry,  
7 for example, to solving the Admiral's problem  
8 of giving our ENCs perfected for the ECDIS  
9 system. I think there's a vision for that.  
10 But there's still a lot of work to do for  
11 those things, for example. I would just like  
12 to bring us back to that.

13 CHAIR PERKINS: Any thoughts?

14 MEMBER MILLER: Where would you  
15 put PORTS under those, Andy?

16 MEMBER BARBOR: At the top.

17 (Laughter.)

18 MEMBER ARMSTRONG: Well, I would  
19 put PORTS and services and products for a  
20 modern marine industry, for example.

21 MEMBER SHINGLEDECKER: I was  
22 looking at my notes and I mirror what you were

1           saying. Attention to Arctic fleet  
2           capabilities, shallow water data resilience  
3           category. Then I had a U.S. infrastructure  
4           investment category which we talked about  
5           earlier. PORTS would definitely fall under  
6           that. And then some of the support for the  
7           higher level partnerships and overcoming some  
8           of those barriers there.

9                        I have it down to four. Then we  
10           can build under each of those four to get some  
11           of the more specific examples in.

12                       MEMBER KUDRNA: I would add. This  
13           letter is going to the Secretary. One of the  
14           questions might be with the recommendation  
15           what's a reasonable expectation of what you'd  
16           want the Secretary to do with that item. It  
17           might be contact the Secretary of Commerce or  
18           make this call to this agency or consider  
19           increasing budget priority for XYZ.

20                       And there are some topics that  
21           we're talking about that we all agree with  
22           that are within the domain of the Admiral and

1           the staff to consider and look into. There  
2           might be some elements that are included in  
3           recommendations with the kinds of actions  
4           you'd expect from the Secretary and some  
5           others that might be internally within the  
6           staff of the Admiral and your domain.

7                         MEMBER BLACKWELL: Question. Do  
8           you mean the Administrator and not the  
9           Secretary?

10                        MEMBER KUDRNA: I mean the  
11           Administrator, yes.

12                        CHAIR PERKINS: I'm looking to the  
13           left side of the room. You guys have an  
14           opportunity and a role to help with this  
15           process. We're all in this room together,  
16           right, with a common mission.

17                        But if we said we were going to  
18           try to identify the major themes, we're in  
19           agreement that the Arctic is a major theme,  
20           right?

21                        Because we've got to move the ball  
22           down the field a little ways today.

1                   MEMBER ARMSTRONG: I think the  
2                   recommendation for the Arctic, there is maybe  
3                   not so many under that one. It's just make  
4                   sure that the floating assets are there.

5                   CHAIR PERKINS: Yes. And maybe  
6                   it's as simple as saying capability of the  
7                   survey.

8                   MEMBER ARMSTRONG: I'm not a real  
9                   stranger to the Hill. I find that words --  
10                  You get a very limited amount of time and you  
11                  have to have a real focus. I think the Arctic  
12                  and the shallow water on coastal are very  
13                  thematic that have economic relevance to the  
14                  nation and security issues. You also bring in  
15                  the fact in both of those areas the research  
16                  that NOAA is most capable of doing is going to  
17                  generate protection of lives and the  
18                  generation of dollars. People like to hear  
19                  those.

20                  But it's true. In this case, it's  
21                  true. So we should say that. People listen  
22                  to that. They respond to that. And I think

1           in our proposals or our recommendations we've  
2           got to stress why we want to do this.

3                       I think again partnerships are  
4           going to be necessary. And I think we broad-  
5           brush that that there are partnerships that  
6           need to be developed and perhaps later down  
7           bring in that we need to have a Naval fund  
8           transfers with the partnerships. So there are  
9           things like that.

10                   CHAIR PERKINS: Right. I think  
11           we've got to get to what you're speaking to,  
12           Ed. But I think we've got to get the themes  
13           first. And then we build the case and the  
14           support and that detail comes second.

15                   MEMBER FIELDS: But between the  
16           two topics that Andy just spoke of and the  
17           four --

18                   MEMBER SHINGLEDECKER: Two of them  
19           overlap.

20                   MEMBER FIELDS: Okay. Then why  
21           wouldn't those four be the major areas that we  
22           fill in under?

1 CHAIR PERKINS: I think that's  
2 great. Can we get those four things up on the  
3 screen to make sure we're clear and then we  
4 start building on them?

5 MEMBER SHINGLEDECKER: I had  
6 Arctic however you want to call that. I had  
7 shallow water data or resilience, some  
8 combination of those two.

9 MEMBER MILLER: Can we get a new  
10 page maybe? Then we can transfer stuff over.

11 CHAIR PERKINS: It may be easier  
12 just to do it on the flip chart, Mike. I  
13 think you're headed in the right direction.

14 MEMBER SHINGLEDECKER: The third  
15 one I had was kind of a high level U.S.  
16 infrastructure investment. And that might  
17 include port deepening, PORTS maintenance,  
18 Corps dredging, although I don't know how we  
19 -- I'm sure the NOAA Administrator agrees  
20 that's somebody else's money, not mine. And  
21 coastal resilience also falls under that, too,  
22 to some extent.

1                   And then the fourth one I had was  
2                   about partnerships. I have here higher level  
3                   action to facilitate interagency partnerships,  
4                   especially the transfer of funds.

5                   Three was --

6                   CHAIR PERKINS: Infrastructure.

7                   MEMBER SHINGLEDECKER: U.S.  
8                   infrastructure investment.

9                   MEMBER ARMSTRONG: But I do think  
10                  we need to get fairly quickly to some specific  
11                  asks, right.

12                  CHAIR PERKINS: Yes, I agree.

13                  MEMBER ARMSTRONG: U.S.  
14                  infrastructure development is one of these  
15                  things that can go on and on and on, right.

16                  MEMBER MILLER: We need to narrow  
17                  it down to just what it is we're --

18                  MEMBER ARMSTRONG: Right. That's  
19                  the wrapper word.

20                  MEMBER MILLER: Yes.

21                  CHAIR PERKINS: Is four -- I mean  
22                  four is a long enough list in my mind. But is

1 everybody in agreement that this?

2 MEMBER WELLSLAGER: Four is money.

3 MEMBER SHINGLEDECKER: We're  
4 actually going to get more specific underneath  
5 there.

6 CHAIR PERKINS: If I were the  
7 auctioneer I heard five. Going once, going  
8 once, going once. Great.

9 MEMBER WELLSLAGER: Sold on four.

10 CHAIR PERKINS: Can we break into  
11 four groups and each of us come up with 25  
12 words? I'm just throwing it out as a concept.  
13 But three of you take item number one and  
14 three of you take item number two. And let's  
15 try to come up with a short 25 word statement  
16 what that means. And then 15 minutes from  
17 now we'll have 100 words. And we'll be making  
18 progress.

19 MEMBER JEFFRESS: What if we get  
20 Ed to write the initial paragraph?

21 CHAIR PERKINS: On each one.

22 MEMBER JEFFRESS: No. The very

1 first paragraph.

2 MEMBER KELLY: I thought what Ed  
3 said was brilliant.

4 MEMBER JEFFRESS: Yes, I did too.  
5 But I didn't catch it all.

6 MEMBER KELLY: I just talked. I  
7 don't know what I said.

8 (Laughter.)

9 Maybe somebody else wrote it down.

10 CHAIR PERKINS: Yes, run the  
11 replay button.

12 Maybe the court reporter can read  
13 it back.

14 MEMBER KELLY: We can get the  
15 opening paragraph. I don't know. We can sit  
16 down and write something out very quickly.

17 CHAIR PERKINS: So maybe 25 words.

18 MEMBER KELLY: NOAA is capable of  
19 producing data and their excellence of service  
20 that can result in the economic development on  
21 national security and the promotion of safety  
22 of life and increase in economic activity and

1 key areas of that would be applied to -- drop  
2 down -- the Arctic to support that, for the  
3 shallow water and certainly coastal and we had  
4 the infrastructure development and investment  
5 which I think is very, very broad and you have  
6 to be careful with that being trampling into  
7 highways and bridges and tunnels, etc.

8 But I think we can certainly make  
9 some introductory thing that will pull us into  
10 that area where we can then set up each of  
11 those.

12 CHAIR PERKINS: I have no doubt we  
13 can write the appropriate introduction to it.  
14 It's making sure we have agreement of what the  
15 bullet points under these headings need to be.

16 MEMBER MILLER: Actually, on one  
17 of the things I just realized is that we  
18 haven't acknowledged what Bill has been  
19 advocating about shovel-ready projects. And  
20 I feel that's more pertinent. It may go under  
21 U.S. infrastructure. It may go under shallow  
22 water bathy.

1                   But I think Bill's point was an  
2                   important one about a plan for shovel-ready  
3                   projects.

4                   MEMBER KELLY: I agree with that  
5                   and I think perhaps we can make it broadest  
6                   based by making a point at the bottom that  
7                   it's incumbent, we believe it's incumbent upon  
8                   NOS to develop shovel-ready. Although when  
9                   we're dealing with water, I hate to try to do  
10                  it with a shovel. Develop shovel-ready  
11                  projects.

12                  (Simultaneous speaking.)

13                  Whatever. Or action-ready or  
14                  actionable projects to support and develop  
15                  each of the aforementioned initiatives. Then  
16                  that covers everything, whether that's Arctic  
17                  or this or that.

18                  MEMBER KUDRNA: We have four  
19                  topics. Why don't four people volunteer to be  
20                  lead drafters? Other people can provide some  
21                  input into them. We'll do this. Since we  
22                  have 45 minutes left before we're supposed to

1 start wrapping up we could talk about some of  
2 these other topics, too and get that input  
3 into you for a draft.

4 CHAIR PERKINS: In to Lynne to  
5 circulate back.

6 MEMBER KUDRNA: That would be  
7 fine.

8 CHAIR PERKINS: I don't want to be  
9 the weak link in the chain.

10 MS. MERSFELDER-LEWIS: As you're  
11 discussing, is this something that we can  
12 either put it in the bin to forward to the  
13 working groups to discuss or put it in the bin  
14 to ask it for a topic for the next meeting or  
15 ask it to HSRP to organize a webinar or  
16 whatever you want to forward that to? Sorry.

17 MEMBER KUDRNA: I'll volunteer for  
18 the U.S. infrastructure.

19 CHAIR PERKINS: Okay. Anybody  
20 else? Thank you, Frank.

21 MEMBER SHINGLEDECKER: I'll do  
22 shallow water.

1 CHAIR PERKINS: Thank you, Susan.

2 MEMBER SHINGLEDECKER: Because

3 that's where my boats are.

4 (Laughter.)

5 (Simultaneous speaking.)

6 MEMBER MILLER: I'll do Arctic.

7 CHAIR PERKINS: Great.

8 MEMBER MILLER: Frank is doing

9 U.S. infrastructure.

10 CHAIR PERKINS: Yes. There's a

11 blank sheet of paper on the wall that will be

12 appropriately titled with each of those four.

13 MEMBER SHINGLEDECKER: I think

14 Frank's suggestion was that we volunteer to

15 take that on. We'll take that home with us.

16 MEMBER KUDRNA: And then we'll

17 deliver.

18 MEMBER SHINGLEDECKER: Then we can

19 move on and discuss some of the other things

20 on the agenda.

21 CHAIR PERKINS: Now I have clarity

22 where we're going with this.

1                   MEMBER KELLY: Mr. Chairman, if we  
2                   have agreement on a topic, the verbiage should  
3                   just be pretty easy to follow. It's a matter  
4                   of word-crafting. I don't think we'd spend a  
5                   lot of time on that. And if we each agree to  
6                   be the tip of the spear or the initial author  
7                   of some comments on each of these we can  
8                   circulate it to the rest of the committee to  
9                   meat it up a little bit and then bring it back  
10                  for consensus.

11                  CHAIR PERKINS: Okay.

12                  MEMBER KELLY: I know you and I  
13                  are out of here. I'm not changing my flight.

14                  (Laughter.)

15                  Come 2:30 p.m. my glass slippers  
16                  fall off and I'm on the way home.

17                  CHAIR PERKINS: Go ahead.

18                  MEMBER FIELDS: When the letter  
19                  goes forward, I realize that this is going to  
20                  be done offline. But when the letter goes  
21                  forward, one of the other things that I heard  
22                  very clearly from the one panel, the gentleman

1           about the right whales. I think that's  
2           something that we should put into our letter  
3           not for them to take care of as far as this  
4           panel is concerned. But the panel has heard  
5           this. They've done enough research on it and  
6           so forth. That is an issue that needs to be  
7           looked at. I think that gentleman deserves to  
8           have some response back from NOAA.

9                        CHAIR PERKINS: We need to pass  
10           that baton up to the Administrator to deal  
11           with.

12                       MEMBER ARMSTRONG: Pass without  
13           comments.

14                       MEMBER FIELDS: I think that needs  
15           to be in the letter that we send off.

16                       CHAIR PERKINS: Yes. I agree.  
17           Thank you for letting us not forget that.  
18           Great. So we've got themes. We've got  
19           leaders for the themes. So we can take that  
20           offline. We have location. We had a  
21           discussion on location at our next meeting on  
22           this list.

1                   Frank, what else did you want to  
2                   make sure we talk about? And we have working  
3                   groups.

4                   MEMBER KUDRNA: Susan and I were  
5                   talking about the discussion was partnering  
6                   with another organization as the IOOS FACA or  
7                   the IOOS Association. I have a call in and  
8                   they've scheduled a conference call with  
9                   Admiral Lautenbacher who is the new chair of  
10                  IOOS for next week. We'll see if their dates  
11                  for -- We're talking about a February-ish or  
12                  one similar to this time next year. If one of  
13                  those match with one of those organizations,  
14                  then we would report that back to you from our  
15                  planning committee. But we're waiting for  
16                  that answer in that regard to feed back to  
17                  you.

18                  CHAIR PERKINS: Okay. Great.

19                  MEMBER KUDRNA: I do have a  
20                  suggestion concerning working groups and I'll  
21                  put this on the table for a thought. I think  
22                  we should initiate working groups. It's a

1 chance to work on topics and bring them  
2 forward to the full board.

3 My suggestion is that working  
4 groups consist of three panel members and  
5 three outside members. And that group would  
6 communicate by conference calls and emails and  
7 develop a response within a year and then give  
8 a subsequent report at the intermediate  
9 meeting.

10 There are three topics I would put  
11 on the table. We already have a working group  
12 for reauthorization. I think that should be  
13 warmed up and brought forward. We discussed  
14 the topic of whether we want to suggest a  
15 report in the future or something like that.  
16 Let this group talk about that.

17 I think we should have a working  
18 group for the topic of engagement. And  
19 engagement I would suggest to you that  
20 committee take a look at the science advisory  
21 boards, report on engagement and also look at  
22 the previous ten most wanted list and see what

1 kind of recommendations concerning engagement  
2 they'd want to bring forward to the group as  
3 a whole.

4 And the third working group I'd  
5 suggest would be capital replacement that  
6 would deal with looking further into the ship  
7 and other equipment replacement needed and  
8 alternate technologies as a possibility on the  
9 capital side.

10 I would put those on the table.  
11 Certainly there are more. But those would be  
12 activities that could engage part of the panel  
13 offline with some outside folks to move some  
14 topics forward.

15 MS. WATSON: Scott.

16 CHAIR PERKINS: Yes.

17 MS. WATSON: Excuse me. One  
18 question. There's a memo. I need to go back  
19 next week and dig it out for you regarding  
20 outside experts serving on the working groups.  
21 There was a direction that came from general  
22 counsel on that. So I do need to check on

1           that for you.

2                       CHAIR PERKINS: All right.

3                       MEMBER SHINGLEDECKER: I would  
4           just add on the topic of working groups that  
5           having been on the HSIA reauthorization  
6           working group, I'm not signing up for that one  
7           next time. I'll just put it that way.

8                       I think Joyce and I did a fair  
9           amount of work on it and listening to Paul's  
10          presentation that things stay unauthorized for  
11          a long time and when something is coming up  
12          and it's about to expire, it looks like some  
13          work goes in to try and to show something is  
14          happening. But once it's been expired for a  
15          while, it doesn't seem to be that urgent.

16                      I'd rather personally we spend our  
17          time doing things that are really going to  
18          have movement and that the Tri-Office  
19          Directors feel this is filling a gap or this  
20          is helping you somehow.

21                      I certainly heard your third  
22          recommendation. Someone mentioned earlier to

1 look at the resources for data acquisition.  
2 The fleet, the new technology and then the  
3 issue of capabilities in the private sector  
4 versus the public sector and what capabilities  
5 are out there. I think that would be a  
6 sizable amount of work for someone to do.

7 I think one of our original  
8 working groups that hasn't fully realized its  
9 value I think it was called program  
10 improvements, but PORTS fell under that. I  
11 think PORTS could be a whole working group.  
12 Maybe Darren already has it, but all the PORTS  
13 systems that are out there, the different  
14 funding models and maybe starting to delve  
15 more into that and what possible areas for  
16 innovation and funding and creativity there  
17 could happen.

18 Those are the two that stand out  
19 to me. But I'm sure there's another one. But  
20 on policy, I don't know.

21 CHAIR PERKINS: I don't think  
22 calling it reauthorization is the best heading

1           for it. What we heard in the briefing was the  
2           massive potential change that could happen to  
3           this organization that we serve if the Map It  
4           Once Use It Many legislation were to get legs  
5           and move forward.

6                        The concept of these services  
7           being moved over to Department of Interior and  
8           administered under different budget line  
9           items, I don't think that we want to turn a  
10          blind eye to that and do an ostrich effect on  
11          it. So reauthorizations I think whatever we  
12          called it before might be better.

13                      I think there's a place if the  
14          panel agrees for us to speak to the  
15          Administrator that we're aware of that  
16          legislation and we have an opinion on it.  
17          We're the smart people that advise her. If we  
18          think that looks like good government we  
19          should speak. And if we think that doesn't  
20          look like good government and the right thing  
21          to do, that should be our message.

22                      But that's a threat to what we

1           have known as hydrographic services. I  
2           shouldn't say a threat. That's definitely a  
3           change.

4                         MEMBER SHINGLEDECKER: I guess I  
5           think it's a good topic and a topic we should  
6           be engaged on. But under the definition of  
7           working group, what work would need to be done  
8           to further advance that topic by us? That's  
9           not clear to me.

10                        MEMBER MILLER: I mean one of the  
11           things we did think of in that the bill is  
12           already in was what changes would we recommend  
13           to the HSIA? And we had done a certain amount  
14           of work, you know, studying the legislation  
15           and studying associated acts.

16                        But basically Paul's advice of  
17           it's not there, don't bother with it, maybe we  
18           shouldn't have taken it. I don't know.

19                        CHAIR PERKINS: I think it's  
20           always good to be prepared to have that type  
21           of advice ready to provide in the event that  
22           a piece of legislation like that goes forward.

1           So as an advisory panel if we had  
2           recommendations that we think would be  
3           beneficial in the event that HSIA were to move  
4           forward, they may sit on the shelf for a long  
5           time. But they don't have an expiration date  
6           on them.

7                           I mean if our recommendation is  
8           HSIA is to have some wording in there that  
9           solves the PORTS problem and have it ready to  
10          go and have a panel endorsement behind it,  
11          that's a beneficial thing to have in our back  
12          pocket and be ready when the time comes. It's  
13          a very long-term objective.

14                          MEMBER JEFFRESS: Scott, remind me  
15          if NGA was included in that. Was it? Was it  
16          also an intention of that act to include NGA  
17          in that group of agencies?

18                          CHAIR PERKINS: I haven't, and  
19          unfortunately Paul left, looked at any of the  
20          current wording for the Map It Once Use It  
21          Many. I had awareness when I had a role in it  
22          in a different association. And I haven't had

1 a dog in the fight for a couple years on that.

2 There are good intentions. Right.

3 There's very good intentions.

4 MEMBER MILLER: I would think  
5 since NGA is I believe a DoD group.

6 MEMBER JEFFRESS: Definitely.

7 MEMBER MILLER: I would be very,  
8 very doubtful. You have much more experience  
9 at that than I do. But I would say I don't  
10 think there's a snowball's chance in hell that  
11 it would be NGA.

12 CHAIR PERKINS: Well, DoD is a big  
13 animal. I mean that's Navy, that's Marine  
14 Corps, that's Army Corps.

15 MEMBER MILLER: But NGA is the  
16 agency that handles the data of NAVOCEANO for  
17 instance.

18 MR. ASLAKSEN: The bulk of NGA is  
19 intelligence. The bulk of the money 70  
20 percent of it is IC money. The rest of it is  
21 DoD money.

22 MEMBER MILLER: I was on that

1           committee. I would take it on to review the  
2           acts that Paul talked about. I think we  
3           should all know what those acts are for sure.

4                       CHAIR PERKINS: Yes, I don't think  
5           we want to disband that working group is  
6           really.

7                       MEMBER MILLER: I'll stay with it.  
8           I was on it and I will go back into the acts  
9           he talked about and just become familiar with  
10          them. Whether there's anything we have to do,  
11          I mean it may just be an awareness function.

12                      Or if I see something that carries  
13          a big flag, I'll report out. I'm one of the  
14          ones that my term ends.

15                      CHAIR PERKINS: I'd really like  
16          the suggestion of three plus three for the  
17          working groups to have a mechanism. There are  
18          a lot of people that have applied for seats on  
19          this panel that haven't been selected that  
20          have a sincere interest in what we do here.  
21          If we can get an answer on can we reach  
22          outside soon and if we can execute some

1 outreach to the people that have expressed  
2 prior interest in the HSRP in serving in this  
3 capacity, I think that should be our first  
4 round of recruits for seats on our working  
5 groups.

6 MEMBER KUDRNA: Scott, what I  
7 suggest here is I mean we're not going to meet  
8 for another six months. So if we like a  
9 working group whether it's an existing or a  
10 new one, I think we ought to indicate that now  
11 and maybe get some volunteers from the panel,  
12 charge you and with consultation with the  
13 Admiral and consistent with the policy of  
14 outside participants to be able to name some  
15 outside folks to fill out the group and get  
16 them rolling before the next meeting.

17 MEMBER MILLER: So are the working  
18 groups going to stay the same pretty much?

19 CHAIR PERKINS: We have three  
20 working groups approved. Right, Kathy?

21 MS. WATSON: I'm sorry.

22 CHAIR PERKINS: We have three

1 working groups approved.

2 MS. WATSON: Yes.

3 CHAIR PERKINS: So we need to stay  
4 within that initial framework or our task  
5 needs to be establish a new working group.  
6 That is the process.

7 MEMBER MILLER: There would be a  
8 reauthorization group under policy. That  
9 would be broader than just the HSIA.

10 MS. WATSON: The outside experts  
11 still have specific issues.

12 MEMBER SHINGLEDECKER: I think the  
13 topic names of the three were policy, program  
14 improvement and Arctic. So the only one that  
15 seems -- I'm not saying that Arctic should go  
16 away because Lawson is not here. But it  
17 seemed the other topic that wouldn't really  
18 fall under any of those would be looking at  
19 the broader resources, the fleet, new  
20 technology and contract internal and external  
21 resources. I don't know where that one would  
22 fit.

1                   MEMBER MILLER: Well, maybe  
2                   program improvement would work.

3                   MEMBER SHINGLEDECKER: Maybe  
4                   program improvement has two subcommittees.  
5                   Maybe can it have two subgroups instead of a  
6                   new group, one to look at PORTS and one to  
7                   look at resources?

8                   CHAIR PERKINS: And the titles we  
9                   can work within this framework. The titles of  
10                  the three approved working groups are  
11                  legislative and the policy initiatives,  
12                  strategic mission centered effectiveness and  
13                  emerging Arctic priorities.

14                  MEMBER MILLER: But I mean could  
15                  some of the new members join those committees.  
16                  For instance, I suspect someone walking in the  
17                  room right now might be interested in the  
18                  PORTS committee.

19                  MEMBER KELLY: It's fully funded  
20                  now, right?

21                  (Laughter.)

22                  MS. MERSFELDER-LEWIS: Scott,

1           could you repeat that? I want to capture those  
2           three that you said.

3                         MEMBER KUDRNA: I would offer the  
4           difference between some of the other FACA  
5           working committees is some of those others  
6           were really long-term and had face-to-face  
7           meetings and everything on it.

8                         What we're contemplating here is  
9           kind of on the cheap. It's going to be a few  
10          phone calls and I assume someone would be  
11          assigned from the staff as being the liaison  
12          of the working committee.

13                        And you would have a half a dozen  
14          people who would have some discussions and  
15          dialogues and a few emails and come back to us  
16          with some action. So it would be relatively  
17          non-burdensome to the agency.

18                        RDML GLANG: That would be great.  
19          We can support that.

20                        MEMBER KUDRNA: Let me say. I  
21          feel pretty strongly. I'd like to see a new  
22          one for engagement that would talk about how

1 we communicate the message, how we communicate  
2 a need, that would look at products or things  
3 like that. I think there's a real need for  
4 that. I'd suggest a new working committee for  
5 that topic.

6 MEMBER SHINGLEDECKER: I would  
7 agree with that. I don't know what the hoops  
8 are to establish another one.

9 CHAIR PERKINS: We put in a  
10 request and it took 60 days to go through the  
11 cycle. We had approval on the three working  
12 groups relatively quickly when we went through  
13 this before. So I think that's okay.

14 Anyone in opposition? Anyone feel  
15 that that's a bad idea?

16 (No verbal response.)

17 Okay. Great. So we'll get that.  
18 That can be a separate letter from our report,  
19 correct, procedurally?

20 RDML GLANG: Yes. That's right.

21 CHAIR PERKINS: So we can  
22 fast-track that.

1 RDML GLANG: We can fast-track it.  
2 It will get sent up to Dr. Sullivan.

3 CHAIR PERKINS: Yes. We don't  
4 have to wait for our wordsmithing and  
5 everything else to get it.

6 RDML GLANG: That's correct. I  
7 would ask though that we put together maybe a  
8 short paragraph on what the scope of the  
9 working group is if they have a particular  
10 thing they want to focus on to help ourselves.  
11 I think that would be helpful so we remember  
12 what that was about.

13 MS. WATSON: Scott, I'm presuming  
14 you'd want an outreach working group. Is that  
15 kind of what you want?

16 RDML GLANG: I think engagement  
17 was the word that was used.

18 MEMBER SHINGLEDECKER: Yes,  
19 engagement would cover outreach.

20 MS. WATSON: Okay.

21 CHAIR PERKINS: Do we need to talk  
22 about the members of these working groups

1 while we're here and try to get some names  
2 associated with those?

3 MEMBER SHINGLEDECKER: I volunteer  
4 for engagement outreach.

5 CHAIR PERKINS: Okay. Thank you.

6 MEMBER MILLER: I'll stay with the  
7 policy.

8 MEMBER FIELDS: I'll work with  
9 Joyce on the legislative.

10 MEMBER MILLER: Legislative and  
11 policy. That would be great, Eveline.

12 MEMBER KELLY: Darren and I doing  
13 work on PORTS.

14 RDML GLANG: Kyle, could you just  
15 take a blank piece of paper and just jot down  
16 by hand those working groups and then we'll  
17 just pass that note around. We can really  
18 quickly capture those. Because our scribe is  
19 parallel processing.

20 MEMBER MILLER: Lynne, I was on  
21 legislative and policy initiative with  
22 Eveline.

1                   MEMBER FIELDS: Don't worry about  
2                   it, Lynne. We'll get in and send it around.  
3                   It will come around to you in a few minutes.

4                   MEMBER SHINGLEDECKER: I just have  
5                   to ask. We were just discussing over here.  
6                   So the concept of the group to look at  
7                   resources for data acquisition, fleet, new  
8                   technology, where does that fall?

9                   MEMBER BARBOR: Strategic mission  
10                  center of effectiveness.

11                  MEMBER SHINGLEDECKER: So that  
12                  group is looking at that and PORTS.

13                  MEMBER BARBOR: If PORTS is  
14                  strategic.

15                  MEMBER SHINGLEDECKER: Oh, they  
16                  just got a big mission. They might need a  
17                  couple of extra people.

18                  MEMBER KELLY: They need somebody  
19                  that understands the science.

20                  MEMBER SHINGLEDECKER: That's a  
21                  broad mission.

22                  MEMBER KELLY: My degree was in

1 maritime transportation and nautical. I need  
2 some scientists if that's going to lump  
3 together with PORTS.

4 MEMBER BARBOR: I'll do the  
5 strategic mission.

6 MEMBER KELLY: Lawson will be the  
7 lone on Arctic.

8 CHAIR PERKINS: I will work with  
9 Lawson on Arctic. I've given him my  
10 commitment that we would not go through this  
11 meeting without discussing it and giving it  
12 some attention. I'm the guy for the cold  
13 water up north.

14 MEMBER MILLER: There's also four  
15 other committee members that aren't here. So  
16 we should send an email out to them and say,  
17 "Okay. We've established a new working group.  
18 These are the working groups that currently  
19 exist. Which one would you like to serve on?"  
20 And not "Would you like to serve on?"

21 CHAIR PERKINS: Next meeting. So  
22 we have some time left. And unless there is

1 something else the panel would rather discuss  
2 realizing this time to build consensus towards  
3 next meeting.

4 MEMBER MILLER: One thing, I mean  
5 I'm pretty much -- I would be happy to go  
6 either way. But one thing I did think of was  
7 in light of emerging technologies and being  
8 aware of state of the art things being able to  
9 attend the hydro meeting would be valuable for  
10 people that would understand.

11 That's really where a lot of the  
12 new technologies are discussed I believe. At  
13 least, I haven't been to a hydro meeting in a  
14 while. But that's what I recall.

15 Andy, would you agree? Is a lot  
16 of the --

17 MEMBER ARMSTRONG: I would,  
18 although there are certainly logistical  
19 challenges to scheduling us along and around  
20 the hydro conference. It's a long time if you  
21 do both or a short time if you just put a day  
22 on it. That's my only comment on that.

1                   MEMBER BARBOR: And the way it is  
2                   Friday is the only open day. Monday is a kind  
3                   of spin-up day I think. Friday is -- It  
4                   closes Thursday.

5                   MEMBER MILLER: Not everybody  
6                   would have to attend the hydro conference.  
7                   But those who were interested might.

8                   MEMBER BARBOR: I would imagine  
9                   the panel isn't paying for attendance to the  
10                  hydro. Under professional.

11                  MEMBER MILLER: Yes, under  
12                  professional.

13                  MEMBER KELLY: Just in the  
14                  interest of looking backwards, I'm seeing  
15                  historically where we have been. We've been  
16                  in New York in the northeast region. We've  
17                  been down in the southeast region I see before  
18                  that. We've been in New Orleans. We've been  
19                  in Anchorage.

20                  I hate to say it personally  
21                  because I've been in Long Beach way too many  
22                  times in my life. But a west coast exposure

1           might be helpful and if we are looking at  
2           partnerships and science, they've done some  
3           pretty exciting things down there. The Port  
4           of Long Beach is actually giving grant for  
5           property to develop oceanic research areas.  
6           And there are some great schools out there.  
7           It would be beneficial for us to meet with the  
8           IOOS RA out there.

9                         CHAIR PERKINS: You bet. I think  
10           we fully vetted it as a viable venue. And we  
11           had it down our short list of two. So I don't  
12           think anything there has changed in that  
13           regard.

14                        MEMBER KELLY: I personally detest  
15           Long Beach.

16                        (Laughter.)

17                        It's like a dead zone.

18                        (Simultaneous speaking)

19                        MEMBER ARMSTRONG: I spent some  
20           time in my career in Long Beach as well back  
21           when there was a Naval station there.

22                        MEMBER KELLY: Well, at least

1 something was going on then. Now you get  
2 there after 6:00 p.m. and there are  
3 tumbleweeds blowing down the street. It's  
4 terrible.

5 But anyway it's a dynamic place.  
6 LA Long Beach is by far the largest maritime  
7 commerce area in terms of containerization.  
8 They are very active in petroleum products and  
9 whatnot. And California has some very unique  
10 environmental requirements.

11 They do have their own whales out  
12 there. They've got their own whales that  
13 they're dealing with in the approach to Long  
14 Beach. So it's a fairly dynamic area.  
15 They've got a very active maritime community  
16 and as I said also Port of Long Beach has  
17 taken some extraordinary action in donating  
18 land.

19 And they've found a grant to set  
20 up this entire research facility that I think  
21 we could certainly arrange to go take a look  
22 at and do some things there.

1                   So there's no shortage of things  
2                   to do in Los Angeles-Long Beach area there.  
3                   Just throwing that out and noting that the  
4                   group hasn't been in the west coast because  
5                   Alaska doesn't count as west coast and neither  
6                   does Hawaii. They're kind of distinct. West  
7                   Coast might be a good spot.

8                   I prefer going to San Francisco.  
9                   I like San Francisco. But if you're going to  
10                  do the Pacific Coast, I hate to say it but  
11                  you've got to go to LA-Long Beach.

12                  CHAIR PERKINS: For clarity for  
13                  Lynne, we need to identify who the chairs are  
14                  of the working groups. So Frank is the chair.

15                  MEMBER KELLY: I'll take the chair  
16                  and we'll kind of co-chair. We'll split it  
17                  into two pieces.

18                  CHAIR PERKINS: Okay. So we've  
19                  got Frank, Susan, Joyce and Ken co-chairing.  
20                  Oh, you're on the same one. That's why we  
21                  need clarity.

22                  MS. MERSFELDER-LEWIS: Maybe you

1 can be on more than one. Who do you report  
2 to? Do you report to Scott or Bill?

3 CHAIR PERKINS: Yes. I think it's  
4 a good suggestion to have the working groups  
5 report to Bill just so that we have --

6 (Laughter.)

7 MEMBER ARMSTRONG: I think we can  
8 put Lawson on the Arctic priority.

9 CHAIR PERKINS: Lawson will be the  
10 chair of the Arctic.

11 MEMBER KUDRNA: Can I suggest one  
12 other thing? Can we get a liaison from the  
13 staff for each of these?

14 RDML GLANG: Yes. We'll do that.  
15 Do I need to do that right now?

16 MEMBER KUDRNA: No. Just so we  
17 get one.

18 RDML GLANG: I'm pretty sure Russ  
19 will be one of them and I'm pretty sure I'll  
20 be looking at Ric to be another one.

21 CHAIR PERKINS: And then the chair  
22 can work with the liaison to identify what the

1 outcomes should be for each working group and  
2 set a schedule with the goal of having some  
3 report out or something from the working  
4 groups in advance of the next meeting at the  
5 location that we've got to make a decision on.

6 Do we have an odd number or an  
7 even number if we do the vote? Matt still  
8 gets to vote. Nine and I can recuse myself.

9 MEMBER SHINGLEDECKER: I know  
10 Frank was going to try and talk with some IOOS  
11 folks to see more of what opportunities would  
12 be for having a meeting at the same time. I'd  
13 like to flesh out those.

14 RDML GLANG: And where  
15 geographically?

16 CHAIR PERKINS: Don't know. We  
17 haven't connected with them. They're setting  
18 up a call. It takes a long time to go through  
19 the process of getting a venue and the  
20 procurements and that. If we want to take  
21 that, I want you to have a response back in  
22 less than 30 days.

1 RDML GLANG: Kathy, we haven't  
2 heard where the next IOOS FACA meeting is at?

3 MS. WATSON: I'm sorry. I didn't  
4 hear you.

5 RDML GLANG: We haven't heard  
6 where the next IOOS FACA meeting is, have we?

7 MS. WATSON: No, but we can go  
8 online and check that.

9 CHAIR PERKINS: All right. So  
10 we'll defer decision on next meeting location  
11 until we hear back from the IOOS FACA meeting  
12 proposal.

13 MEMBER FIELDS: You're saying that  
14 the possibilities are where IOOS folks are  
15 meeting, the hydro conference and Long Beach.  
16 Are those kind of the three in the running  
17 from what I was listening to?

18 CHAIR PERKINS: Yes.

19 MEMBER FIELDS: Okay.

20 CHAIR PERKINS: I've had  
21 conversations with the Director of the Port of  
22 Long Beach and the Director of the Port of LA.

1           They would love to have us there.

2                       MEMBER FIELDS: I'm just trying to  
3           get an idea of what we are looking at.

4                       CHAIR PERKINS: So we have LA-Long  
5           Beach, D.C. and some location to be  
6           determined.

7                       MEMBER FIELDS: To be determined,  
8           okay.

9                       MEMBER MILLER: In the time frame  
10          of March-April. Is that sort of the general  
11          time frame we're talking?

12                      CHAIR PERKINS: We said we  
13          couldn't do it any earlier than late February  
14          due to the time line for getting the new panel  
15          members seated. So I think the answer is yes.  
16          That puts us in the March.

17                      RDML GLANG: I think March. April  
18          starts running into a problem for your DFO.  
19          If you really want to do it, then that's fine.  
20          I have a capable alternate DFO.

21                      MS. MEDLEY: Just wanted to  
22          clarify when the next IOOS FACA meeting is.

1           It's October 2-3, 2014. So it's in just a  
2           couple of weeks, in Duluth, Minnesota.

3                         CHAIR PERKINS: Great Lakes.

4                         MEMBER KUDRNA: It may be really  
5           timely because they haven't set their next  
6           location. So we could discuss about a common  
7           location or see if they're willing to do it in  
8           Long Beach.

9                         I guess what I'd suggest and would  
10          really like to happen is we came in Monday and  
11          we had some joint exposure, but it wasn't  
12          enormous. And I'd like if we could work out  
13          with the other FACA to have a half a day  
14          common meeting. So we meet on one side and  
15          they meet on one side. Then maybe we'd sit  
16          down with their FACA and our FACA have some  
17          common topics or discussions for a piece of  
18          our meeting. It would be full engagement  
19          between the two.

20                        I don't know what your thoughts  
21          are on that, but I think that would be a good  
22          thing.

1 MS. MEDLEY: Sorry. Just one more  
2 new bit of information. They have a second  
3 FACA in D.C. April 15-16.

4 MEMBER MILLER: 2015?

5 MS. MEDLEY: 2015. No. Sorry.  
6 It happened already. I guess they haven't  
7 posted their 2015 schedule. Sorry. Sorry to  
8 get everybody so upset.

9 RDML GLANG: We can talk with IOOS  
10 and find out a little bit more. I think  
11 Frank's idea is intriguing. We've talked  
12 about this before. But if we get in front of  
13 it soon enough, maybe we can actually pull off  
14 a bit of an overlap.

15 But it's all still a public  
16 meeting process. Right. So you have to  
17 decide if you want a half day or a full day.  
18 And then we need to think about what you want  
19 to hear on to maximize the use of that time.

20 MEMBER BARBOR: It's a public  
21 meeting. So you have a public comment  
22 session. Is anybody publicly here?

1 RDML GLANG: Do we have anybody on  
2 line, Tiffany?

3 (No verbal response.)

4 So no public comments. Does  
5 anyone have comments to offer at this time  
6 from our web listeners?

7 (No verbal response.)

8 MEMBER SHINGLEDECKER: Did we  
9 answer the comment from yesterday that came?

10 RDML GLANG: The day before from  
11 Mr. Freeman. No. I think we've got to get  
12 back to him. It was a good question and we'll  
13 share that with everybody.

14 MEMBER SHINGLEDECKER: Great.

15 RDML GLANG: There were several  
16 questions in there.

17 MS. MERSFELDER-LEWIS: I have a  
18 question.

19 RDML GLANG: For which? For  
20 membership or for --

21 MS. MERSFELDER-LEWIS: No, for  
22 chairs or co-chairs. We have two people. Do

1 I have that correct that Eveline and Susan or  
2 Eveline and Joyce are the co-chairs?

3 MEMBER ARMSTRONG: Mr. Chairman.  
4 The non-voting members would probably be  
5 willing to serve on some of those working  
6 groups as well. I don't think anything came  
7 to us, but you could get us signed up.

8 CHAIR PERKINS: That's a great  
9 idea.

10 MS. MERSFELDER-LEWIS: Is there a  
11 chair or co-chair for the legislative and  
12 policy?

13 MEMBER FIELDS: Yes, Joyce.

14 MEMBER MILLER: I'll take chair so  
15 long as I'm on the committee.

16 MEMBER ARMSTRONG: Lynne.

17 MS. MERSFELDER-LEWIS: Yes.

18 MEMBER ARMSTRONG: Would you add  
19 me under strategic and Arctic?

20 MEMBER KELLY: And Arctic and  
21 engagement. Not co-chair but just on that.

22 CHAIR PERKINS: Tiffany, can you

1 read that question again please.

2 MS. HOUSE: Chris Freeman, he's on  
3 line and he wants you to explain Susan's  
4 working group in more detail.

5 MEMBER SHINGLEDECKER: Can you ask  
6 him which one is mine? I was just going to  
7 say engagement. Engagement actually, Frank is  
8 the chair. I'm just solely a member.

9 (Laughter.)

10 But Frank can explain it.

11 MEMBER KUDRNA: The engagement  
12 committee, my suggestion was that the  
13 committee would begin with the Science  
14 Advisory Board's report to NOAA on engagement  
15 and also take the previous ten most wanted  
16 list and explore the options of engaging the  
17 broad constituencies in an effective way and  
18 coming back with suggestions in that regard.

19 MEMBER SHINGLEDECKER: I also sort  
20 of understood it as the outreach and  
21 communications side of the mission of these  
22 offices.

1 MEMBER KUDRNA: Yes. Good point.

2 RDML GLANG: I would like as we're  
3 identifying chairs and co-chairs and  
4 participants in these working groups that I  
5 just want to reiterate that I'm preparing a  
6 short paragraph to help define what the  
7 working group will be about and perhaps if you  
8 already know specific things you want to work  
9 at.

10 Frank, you had a pretty specific  
11 idea there. That's great. And then we can  
12 share that broadly.

13 MEMBER KUDRNA: And I've agreed to  
14 be the chairman of the working committee and  
15 Susan would be the vice chair, the recording  
16 secretary and the treasurer.

17 (Laughter.)

18 MEMBER SHINGLEDECKER: Just because  
19 he's a BoatUS member, he thinks he can boss me  
20 around.

21 VICE-CHAIR HANSON: Are his dues  
22 paid?

1 MEMBER SHINGLEDECKER: They are.

2 I checked.

3 MEMBER ARMSTRONG: Lynne, put

4 Arctic for me also.

5 MEMBER MILLER: Lynne, on

6 legislative, I'm the chair. Eveline is a

7 member.

8 MEMBER BARBOR: You can stick me

9 on legislative.

10 MEMBER FIELDS: Thank you, Joyce.

11 MEMBER MILLER: You're welcome.

12 MS. MERSFELDER-LEWIS: And who

13 would be your co-chair?

14 MEMBER MILLER: I don't have to

15 have a co-chair. Not to worry. Who would

16 like to be liaison?

17 MEMBER ARMSTRONG: Lynne, you

18 should be listed as liaison or staff rather

19 than member in engagement.

20 MS. WATSON: Scott, what were you

21 doing up here?

22 CHAIR PERKINS: We've decided that

1           that will be a take home for each of those  
2           chairs.

3                       MS. WATSON:   Okay.

4                       MEMBER MILLER:   And we'll get that  
5           to you.

6                       CHAIR PERKINS:   Within?

7                       MEMBER MILLER:   A week at most.

8           Will you then circulate those to --

9                       CHAIR PERKINS:   The whole  
10          membership.

11                      MEMBER MILLER:   The whole  
12          membership.

13                      CHAIR PERKINS:   Yes.   And then  
14          please try to be as concise with those as you  
15          can.   I'd really like this letter to be no  
16          more than two pages in total.

17                      MEMBER MILLER:   We should also  
18          pull things from the discussions that we think  
19          might fit under this and they might be under  
20          more than one topic.   And they could be put  
21          where most appropriate I would think.

22                      CHAIR PERKINS:   Yes, we'll have to

1           have a review session to make sure that's in  
2           harmony.

3                       MEMBER KELLY: Use a very small  
4           font.

5                       (Laughter.)

6                       CHAIR PERKINS: I'm sure there's a  
7           standard form dash something that we should  
8           use. Right.

9                       MEMBER KUDRNA: Going back to the  
10          working committee for a second, did we agree  
11          that we have the ability to ask the Admiral  
12          and Scott collectively to appoint up to three  
13          outside folks to sit on these working  
14          committees?

15                      MS. MERSFELDER-LEWIS: I don't  
16          think you can because Kathy --

17                      MS. WATSON: We have to send that  
18          to DOC Ethics.

19                      MEMBER KUDRNA: Subject to  
20          consistency with the Ethics requirement, yes.

21                      CHAIR PERKINS: We think we can do  
22          that in our sidebar.

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Okay. Do we have other business?

(No verbal response.)

All right. 2:09, 1409 Eastern  
Time. Hearing no other business, I want to  
thank everyone for your contributions. Three  
days is a long time to do this. I look  
forward to our next meeting wherever that  
shall be.

(Whereupon, at 2:10 p.m., the  
above-entitled matter was concluded.)

<b>A</b>	163:9 165:14	<b>act</b> 11:7 16:19 40:1	149:18 152:1	260:4
<b>\$1</b> 31:16	166:7,21 173:17	41:19 42:3,3,7	168:2	<b>advanced</b> 20:16
<b>\$10</b> 128:13	173:20,22 174:3	43:6,8 44:5,19,20	<b>additional</b> 80:1	76:8
<b>\$126</b> 95:10	178:5 183:8 186:6	45:6 46:1 48:15	85:5 128:13	<b>advancement</b>
<b>\$14.5</b> 30:19	212:3,19 245:14	48:15,18 56:2	151:20	160:8
<b>\$15</b> 105:11	254:8	67:20,20 68:5,10	<b>additions</b> 107:17	<b>advantage</b> 12:12
<b>\$192</b> 34:5	<b>above-entitled</b>	68:22 242:16	<b>address</b> 29:17 30:2	<b>advertise</b> 162:2
<b>\$196</b> 34:6	131:10 185:5	<b>action</b> 8:8 9:1	41:7 65:17 66:1	<b>advertised</b> 163:14
<b>\$20</b> 27:21 32:6,9	272:10	147:5 190:6,6	80:17 120:17	<b>advice</b> 241:16,21
<b>\$21</b> 105:12	<b>absolutely</b> 129:4	204:11 212:13	123:22 131:19	<b>advise</b> 207:13
<b>\$25</b> 27:21 30:4,12	209:14	226:3 248:16	<b>addressed</b> 29:6	240:17
109:3 112:2	<b>academic</b> 122:11	257:17	117:9	<b>advisor</b> 2:11 55:14
125:16	<b>Academies</b> 116:11	<b>action-ready</b>	<b>addressing</b> 99:3	55:14,15 162:2,7
<b>\$250</b> 108:20 109:1	<b>Academy</b> 58:11	230:13	149:13 162:18	163:3
109:4	<b>accelerate</b> 152:2	<b>actionable</b> 230:14	170:22	<b>advisors</b> 162:22
<b>\$250,000</b> 34:17	153:4	<b>actions</b> 161:1	<b>adequately</b> 87:3	163:5
153:12	<b>accept</b> 214:15	163:13 222:3	<b>adjacent</b> 58:17	<b>advisory</b> 17:10,18
<b>\$26</b> 105:12	<b>access</b> 44:10 95:15	<b>active</b> 67:10 182:6	<b>administered</b> 240:8	19:2 90:20 91:1
<b>\$3</b> 153:3	102:14 108:4	209:11 257:8,15	<b>administration</b> 1:3	181:4 182:1
<b>\$300,000</b> 34:8,12	<b>accessed</b> 70:8	<b>ActiveCaptain</b>	25:10 65:15	204:22 216:5
<b>\$31</b> 64:15,20	<b>accessible</b> 18:8	93:10	116:15 161:5	236:20 242:1
<b>\$31.2</b> 30:14	<b>accomplish</b> 121:19	<b>activities</b> 11:21	<b>Administration's</b>	267:14
<b>\$32</b> 64:15,20	123:2,3 125:18	12:6 14:3 24:3	181:17	<b>advocate</b> 60:6
<b>\$4</b> 31:15 34:2,7	178:10 200:14	42:20 45:9,11	<b>administrative</b>	149:1 182:11
<b>\$400</b> 109:13	201:2	47:3 50:17 52:13	150:14	203:22
<b>\$5.5</b> 35:14	<b>accomplished</b>	56:3 69:10 130:8	<b>administrator</b> 2:13	<b>advocates</b> 67:6
<b>\$528</b> 128:2	129:7 131:8	149:12,17 161:1	17:13 60:21 71:7	<b>advocating</b> 229:19
<b>\$600</b> 176:11	<b>accomplishments</b>	167:5,8 171:20	71:12 126:14	<b>aeronautical</b> 80:15
<b>\$700</b> 128:2	149:11	174:19 202:20	191:17 210:18	<b>Affairs</b> 2:16
<b>\$80</b> 68:8,12	<b>accuracy</b> 17:4,16	237:12	212:8,14 222:8,11	<b>affiliations</b> 165:17
<b>a.m</b> 1:13 4:2	157:1	<b>activity</b> 23:17	225:19 234:10	<b>aforementioned</b>
131:11,12	<b>accurate</b> 15:18	41:21 46:5 129:18	240:15	230:15
<b>ability</b> 145:19	18:22 65:1 128:19	203:12 228:22	<b>administrators</b>	<b>afternoon</b> 15:13
202:18 210:8	155:2,4	<b>activity-wise</b>	166:3	131:3
212:5 271:11	<b>accused</b> 125:6	117:22	<b>Admiral</b> 40:13	<b>age-related</b> 117:8
<b>able</b> 17:19 26:20	<b>achievement</b>	<b>acts</b> 241:15 244:2,3	46:22 49:4 73:17	<b>agencies</b> 21:9 22:11
36:22 85:21	181:20	244:8	184:15 187:9	24:2 121:15 164:7
140:12 144:13	<b>Achilles</b> 115:18	<b>actual</b> 23:18 36:6	211:13 221:22	167:20 177:21
147:5 148:3	<b>acknowledged</b>	<b>actualizing</b> 210:4	222:6 235:9	208:5 214:5,16
151:13,14,15,17	229:18	<b>add</b> 9:11 60:8 72:9	245:13 271:11	217:9,12 219:7
151:18 152:13,20	<b>acquired</b> 77:14	72:12 177:16	<b>Admiral's</b> 170:15	242:17
155:12,22 156:6	<b>acquisition</b> 12:14	191:15 221:12	194:18 220:7	<b>agency</b> 25:1,10
157:1,4,4,10,12	24:14 200:17	238:4 266:18	<b>ado</b> 150:15	27:12 45:10 62:7
158:10,16,20	239:1 252:7	<b>added</b> 34:3 109:5	<b>adopted</b> 155:1	112:10,10 212:18
159:13,15 160:2	<b>acronym</b> 12:1 42:4	<b>adding</b> 112:19	156:4	216:13,14 221:18
160:14 161:18	<b>acronyms</b> 87:11	<b>addition</b> 62:8	<b>advance</b> 8:19	243:16 248:17
162:2,8,14,19	<b>ACSM</b> 164:17,17	106:11 107:16	141:14 241:8	<b>agency's</b> 217:22

<b>agenda</b> 3:5 4:3 15:9 72:22 232:20	84:1 96:18 110:10 111:13 162:4,7	<b>anemic</b> 125:16	<b>applicable</b> 156:11	46:22 47:15
<b>agents</b> 92:7	187:3 199:8 206:8	<b>Angeles</b> 83:12	<b>applications</b> 20:8	110:10 111:5,9,17
<b>aggressive</b> 20:22	258:5	<b>Angeles-Long</b> 258:2	<b>applied</b> 100:18 155:4 229:1 244:18	111:20 187:3,16 192:14 194:20 195:1,4,9,16 196:13 197:14 198:1,16 199:7,14 219:14,18,19 221:1 222:19 223:2,11 225:6 229:2 230:16 232:6 246:14,15 247:13 253:7,9 259:8,10 266:19 266:20 269:4
<b>aging</b> 118:3	<b>albeit</b> 205:8	<b>animal</b> 243:13	<b>apply</b> 41:10 48:7	<b>area</b> 13:5 64:2 87:10 133:12 139:3 143:10 152:7,11 153:18 153:21 161:21 162:18 190:13 198:17 229:10 257:7,14 258:2
<b>ago</b> 5:7 40:2 55:11 88:2,2,3 98:16 103:2 123:19 132:15 157:9 163:18 172:11 176:12 201:16	<b>alert</b> 129:11	<b>animated</b> 166:18	<b>applying</b> 173:7,9	<b>areas</b> 11:13,14 85:6 150:13 151:5 155:13 165:10 173:17 174:11 191:12 197:19 217:8 223:15 224:21 229:1 239:15 256:5
<b>agree</b> 65:13 149:4 221:21 226:12 230:4 233:5 234:16 249:7 254:15 271:10	<b>Allen</b> 135:13	<b>anniversary</b> 144:9	<b>appoint</b> 271:12	<b>arm</b> 79:16
<b>agreed</b> 28:13 217:18 268:13	<b>Alliance</b> 67:8	<b>announced</b> 162:10	<b>appreciate</b> 47:13 54:5 59:13 118:4 183:4	<b>ARMSTRONG</b> 2:2 73:4,14 101:7,13 217:3 219:10 220:18 223:1,8 226:9,13,18 234:12 254:17 256:19 259:7 266:3,16,18 269:3 269:17
<b>agreement</b> 28:11 213:10 215:20 218:18 222:19 227:1 229:14 233:2	<b>allied</b> 90:17,19	<b>annual</b> 122:6 168:16	<b>appreciated</b> 181:22	<b>Army</b> 11:18 12:4 12:17 57:11 58:11 58:13 151:8 159:22 164:6 206:4,18 208:6 209:21,21 210:6,9
<b>agreements</b> 92:3 93:5 206:13 213:15 214:5,22 215:16 216:6,14	<b>Allison</b> 135:13	<b>annually</b> 20:19	<b>approach</b> 11:20 14:8 16:11 61:12 119:20 126:1 163:4 188:19 217:10 218:14 257:13	
<b>agrees</b> 179:9 225:19 240:14	<b>allocation</b> 114:7,15 114:22	<b>anomalies</b> 36:18,18	<b>approached</b> 112:18	
<b>ah-ah</b> 198:13	<b>allotted</b> 9:6	<b>answer</b> 16:2 72:10 122:21 124:21 126:21 147:7 177:8 180:2 189:2 200:5 207:7 235:16 244:21 262:15 265:9	<b>approaches</b> 119:20 189:16	
<b>ahead</b> 22:20 94:17 147:14 233:17	<b>allow</b> 109:6 131:6 180:10	<b>answered</b> 218:12	<b>approaching</b> 14:14	
<b>aim</b> 188:16	<b>allowed</b> 6:12 126:5 153:12	<b>anybody</b> 136:18 139:21 158:19 164:15 208:22 231:19 264:22 265:1	<b>appropriate</b> 116:16 216:13 229:13 270:21	
<b>air</b> 52:3 124:4	<b>allows</b> 158:18 159:11	<b>anymore</b> 34:1 172:9,15	<b>appropriated</b> 153:8	
<b>airborne</b> 152:3 177:19 178:10	<b>alluded</b> 153:2	<b>anyone's</b> 37:9	<b>appropriately</b> 232:12	
<b>aircraft</b> 12:13 177:12,18 178:1 178:10	<b>alluding</b> 200:3	<b>anyway</b> 44:10 257:5	<b>appropriater</b> 50:7	
<b>airport</b> 214:16	<b>alpha</b> 183:18	<b>anyways</b> 40:10	<b>appropriation</b> 24:10 28:16 36:6 202:11	
<b>AIS</b> 89:6	<b>alternate</b> 237:8 262:20	<b>APA</b> 88:2	<b>appropriations</b> 33:4 38:5 39:21 40:21 41:12 46:18 68:8 179:15	
<b>AIWW</b> 96:4	<b>amazing</b> 157:21	<b>apologize</b> 130:16 184:13	<b>approval</b> 161:10 249:11	
<b>Alabama</b> 144:8 167:12	<b>America</b> 97:22	<b>app</b> 94:5,12,14 95:17 99:6,21 108:11	<b>approve</b> 103:17	
<b>alarm</b> 168:22	<b>American</b> 87:21 98:5 164:18	<b>apparent</b> 106:5	<b>approved</b> 245:20 246:1 247:10	
<b>Alaska</b> 14:15 35:4 40:11 46:21 83:20	<b>amount</b> 6:19 21:13 30:20 36:15 69:7 76:1 123:1 153:11 154:2 156:2 175:11 176:9 185:22 223:10 238:9 239:6 241:13	<b>apparently</b> 118:6 120:13	<b>approval</b> 161:10 249:11	
	<b>Analyst</b> 2:14	<b>appear</b> 15:20 109:9	<b>approve</b> 103:17	
	<b>analytical</b> 207:14	<b>appears</b> 128:9	<b>approved</b> 245:20 246:1 247:10	
	<b>analytics</b> 145:20 175:11	<b>Applause</b> 72:21 109:16 149:7 178:13 181:2 182:18 183:21 185:3	<b>approximately</b> 154:20	
	<b>Anchorage</b> 255:19		<b>apps</b> 93:22 94:12	
	<b>Andy</b> 2:2 101:4 219:9 220:15 224:16 254:15		<b>April</b> 262:17 264:3	
	<b>anecdotal</b> 122:8		<b>Arctic</b> 34:21 35:4	

212:6 213:3,10,15 215:5 243:14 <b>arrange</b> 257:21 <b>arrangement</b> 93:9 <b>arrive</b> 83:11 <b>art</b> 254:8 <b>articles</b> 198:17 <b>Ashepo</b> 7:12 <b>Ashley</b> 14:8 218:22 <b>aside</b> 34:8 70:11 118:9 <b>asked</b> 4:17 74:2,18 103:16 110:2 147:7 200:2 201:21 202:3,5,6 207:7 <b>asking</b> 159:21 161:4 170:1 <b>asks</b> 226:11 <b>Aslaksen</b> 2:9 10:9 21:17 124:11 128:11 175:2 177:7 214:19 215:8 217:5 243:18 <b>aspect</b> 68:3 133:21 <b>aspects</b> 137:2 <b>assessment</b> 26:3 90:21 124:7 <b>asset</b> 195:6 <b>assets</b> 151:14 192:13,14 194:10 194:17 195:11 196:6,19 199:14 200:1,13,18,19 223:4 <b>assigned</b> 248:11 <b>assignment</b> 56:14 56:15 70:19 71:22 192:1 208:3 <b>assignments</b> 55:5,8 56:5,9 70:5 72:11 206:16 <b>assistant</b> 2:13 116:10 <b>associated</b> 36:2 130:7 203:13	216:7 241:15 251:2 <b>association</b> 43:10 67:4 87:21 93:2 97:22 128:1,5,8 143:18 235:7 242:22 <b>associations</b> 29:21 67:5,14 <b>assume</b> 248:10 <b>assurance</b> 35:17 <b>Atmospheric</b> 1:3 181:17 <b>attached</b> 122:4 <b>attack</b> 146:15 <b>attempted</b> 8:9 <b>attend</b> 254:9 255:6 <b>attendance</b> 255:9 <b>attention</b> 5:17 62:19,22 93:10 186:22 190:12 221:1 253:12 <b>attorneys</b> 215:18 <b>attract</b> 200:12 <b>attracting</b> 172:5 <b>atypical</b> 24:19 <b>auctioneer</b> 227:7 <b>audience</b> 165:5 <b>August</b> 71:10 153:22 <b>AUSPOS</b> 176:19 <b>author</b> 233:6 <b>authoritative</b> 209:7 209:9 <b>authorities</b> 48:17 66:12 <b>authority</b> 6:21 39:16,19 40:6 56:2,4,12 86:22 <b>authorization</b> 39:20 40:1,3 42:5 50:6 68:8 <b>authorizations</b> 41:1 <b>authorized</b> 70:14 121:22 <b>authorizes</b> 68:12	<b>auxiliary</b> 93:4,6 <b>availability</b> 193:2 193:16 199:6 <b>available</b> 18:2,7 20:8 82:8,19 89:19 92:5 102:16 104:16 108:10 113:3,8,10,11,17 126:3 149:22 152:19 153:20 154:3 159:3 160:9 176:5 192:22 216:16 <b>Aviation</b> 114:14 <b>avoid</b> 8:20 66:8 <b>AVs</b> 194:9 <b>award</b> 47:21 48:8,9 117:21 <b>awarded</b> 108:15,19 109:1,13 <b>awarding</b> 47:18 <b>awards</b> 183:14 <b>aware</b> 23:20 24:3 40:6,7 41:22 42:13 43:14 46:14 50:19 71:9,13,15 96:8 110:8 213:13 240:15 254:8 <b>awareness</b> 86:6 89:12 204:8 242:21 244:11 <b>awful</b> 97:7 <b>awhile</b> 121:10 157:14 216:2	216:10 220:12 228:13 231:5 233:9 234:8 235:14,16 237:18 242:11 244:8 248:15 256:20 260:21 261:11 265:12 267:18 271:9 <b>backbone</b> 102:17 <b>background</b> 21:1 104:14 164:16 <b>backlog</b> 29:7,18 30:3 41:8 65:4,17 66:1 123:22 <b>backs</b> 185:13 <b>backup</b> 145:21 <b>backwards</b> 255:14 <b>bad</b> 5:10 10:5 32:2 35:4 140:11 249:15 <b>bags</b> 73:9 <b>balance</b> 47:7 <b>Baldwin</b> 43:22 48:14 69:3 <b>ball</b> 27:20 222:21 <b>band</b> 76:10,10 <b>banks</b> 144:19 <b>banner</b> 138:18 <b>BARBOR</b> 1:17 20:10 118:4,12 120:12 187:22 220:16 252:9,13 253:4 255:1,8 264:20 269:8 <b>barriers</b> 221:8 <b>bars</b> 24:11 <b>base</b> 18:6,15 29:4 29:10 30:12 113:11 150:11 <b>based</b> 102:16 109:8 230:6 <b>basic</b> 154:13,14 <b>basically</b> 11:2 12:13 19:15 31:12 36:14 74:22 159:11 172:10	173:13 241:16 <b>basics</b> 116:14,18 <b>basis</b> 102:16 107:20 155:11 165:2 167:7 168:16 202:11 <b>bat</b> 45:15 <b>batch</b> 109:11 <b>bathy</b> 151:3 229:22 <b>bathymetry</b> 76:8 76:11 219:21,22 <b>baton</b> 234:10 <b>batting</b> 62:4 <b>battle</b> 69:14 <b>Bay</b> 143:10 144:7 179:3 <b>Beach</b> 83:12 84:1 108:8 255:21 256:4,15,20 257:6 257:14,16 258:2 258:11 261:15,22 262:5 263:8 <b>bear</b> 72:13 76:6 197:19 <b>beat</b> 110:18 <b>Beaufort</b> 111:16 <b>beautiful</b> 95:11 <b>Begich</b> 47:11 <b>beginning</b> 153:22 <b>believe</b> 25:14 34:16 70:6,16 157:9 230:7 243:5 254:12 <b>belittling</b> 120:16 <b>benchmarks</b> 165:9 <b>beneficial</b> 71:6 242:3,11 256:7 <b>benefit</b> 205:14 <b>benefits</b> 129:13 <b>bergadot</b> 196:17 <b>best</b> 11:4 17:14 20:8 35:11 47:15 168:12 197:19 239:22 <b>bet</b> 256:9 <b>beta</b> 94:4 <b>better</b> 7:7 20:4 25:6
<b>B</b>				
<b>B</b> 3:1				
<b>back</b> 4:17 9:20 27:22 32:22 38:9 38:18 51:13 54:14 55:6 59:6 60:2,14 64:17,18 68:18 94:10 101:1,3 117:15 118:14,21 131:8,17 136:20 137:5 142:8 144:4 158:14 186:21 191:3 211:5				

26:20 28:5 44:12	68:6 78:12 84:17	61:11 67:3,7,10	<b>briefings</b> 46:13	115:3 121:5,7
46:2 59:14 60:9	100:11 123:18	79:22 141:22	48:12 49:3,6 50:8	125:1,17 127:2
75:19 88:15 92:9	132:16 146:15	<b>boil</b> 189:1	73:1 131:14	130:5 153:3,8
98:19 99:22 100:1	149:17 159:9	<b>bolded</b> 137:10	<b>briefly</b> 45:5 53:19	202:20 219:1
102:8 118:18	166:15 173:8	<b>Bonamici</b> 50:22	126:16 153:3	221:19 240:8
151:11 158:22	175:9 211:1 214:2	<b>book</b> 8:13	<b>brilliant</b> 228:3	<b>budgets</b> 153:16
166:22 187:5	214:6 215:3 233:9	<b>Booker</b> 51:8	<b>bring</b> 20:12 50:16	<b>build</b> 49:19 77:17
204:3 206:8	264:2,10,14	<b>BookletChart</b>	52:4 54:19 59:2,6	87:1 89:10 111:3
216:15 240:12	<b>Blackwell</b> 2:3 3:14	103:1	60:2 72:13 83:22	119:17,21 125:15
<b>beyond</b> 208:16	17:8,9 20:14	<b>boring</b> 154:10	89:5 136:19 137:4	128:19 178:8
<b>bi-directional</b> 8:2	66:14,19 149:8	<b>boss</b> 25:14 268:19	148:13,13 173:18	205:5 221:10
<b>big</b> 22:4 29:15 31:7	157:19 168:21	<b>bother</b> 241:17	187:5 198:3	224:13 254:2
35:10 37:16 50:3	169:10 170:7,10	<b>bottom</b> 35:21 52:2	220:12 223:14	<b>building</b> 44:9 77:22
50:20 57:11,17,19	170:18 172:7	69:16 82:1 230:6	224:7 233:9 236:1	95:18 97:8,12
57:19 58:3,6,8	173:15 175:13	<b>bound</b> 95:10	237:2	106:15 111:22
66:22 67:12 74:21	176:10 177:3,15	<b>box</b> 82:1 153:18	<b>bringing</b> 186:21	123:8 165:12
78:21 95:10 101:2	214:18,20 216:3	<b>boxes</b> 152:15	<b>brink</b> 178:22	225:4
103:8 106:3,4,22	222:7	<b>Bradley</b> 2:11 3:9	<b>broad</b> 104:1 155:13	<b>builds</b> 109:12
119:8 128:1,2	<b>blank</b> 232:11	22:18,22 39:12	206:18,19 207:20	128:21
130:4 143:6 144:9	251:15	53:5 61:1 63:16	224:4 229:5	<b>built</b> 11:20 85:12
145:15 148:1,5	<b>blind</b> 240:10	64:5,13 65:12	252:21 267:17	94:8 119:1
150:2,10 153:17	<b>BLM</b> 177:22 215:2	66:18,22 68:3	<b>broader</b> 107:18	<b>bulk</b> 243:18,19
160:8 204:8	<b>block</b> 152:16 198:6	71:8 72:15 124:22	172:11 192:17	<b>bullet</b> 166:10
243:12 244:13	<b>blocks</b> 152:5	126:8,11,16 204:7	193:16 208:21	216:17 229:15
252:16	<b>blood</b> 164:1	205:3 213:8	246:9,19	<b>bullets</b> 164:11
<b>bigger</b> 57:2,6 119:6	<b>bloom</b> 135:17	214:13	<b>broadest</b> 230:5	<b>bump</b> 63:7 64:1
119:6 153:1	<b>blowing</b> 257:3	<b>brainstorming</b>	<b>broadly</b> 78:19	195:10,10,10
207:17	<b>blue</b> 24:13 38:21	192:5	165:4 268:12	<b>bunks</b> 116:13
<b>biggest</b> 11:13 38:22	152:17	<b>branch</b> 2:16 103:4	<b>broken</b> 14:5 25:17	<b>burdensome</b> 61:22
147:3 170:16	<b>blurbs</b> 54:22	103:5	26:21 83:2 85:9	<b>buried</b> 104:4
<b>bilateral</b> 92:3	<b>board</b> 8:13 56:21	<b>break</b> 38:7 73:3,13	<b>brought</b> 76:6,17	<b>business</b> 94:14
<b>bill</b> 32:20 34:11,20	58:12 59:6 173:18	131:2 180:10	83:8 134:17	96:16 98:20
35:19 40:12,14,16	236:2	195:6 197:7,22	135:18 190:8,12	105:15,17 107:15
46:19 68:7 69:3,3	<b>Board's</b> 267:14	227:10	197:18,19 205:13	109:19,20 116:7
229:18 241:11	<b>boards</b> 236:21	<b>breakout</b> 5:2	236:13	116:21 150:8
259:2,5	<b>Boat</b> 93:1	<b>BRENNAN</b> 2:12	<b>browse</b> 107:10	178:21 206:1,10
<b>Bill's</b> 127:21 129:3	<b>boater</b> 100:3	<b>bridge</b> 79:3 102:13	<b>brush</b> 118:8 224:5	272:1,4
230:1	102:10	<b>bridges</b> 229:7	<b>buckets</b> 26:21	<b>busy</b> 23:19 24:1
<b>bills</b> 33:4	<b>boaters</b> 92:14	<b>brief</b> 108:17 118:5	<b>budget</b> 3:8 22:21	<b>button</b> 195:4,16
<b>bin</b> 78:19 231:12	94:19 95:7,15	120:13	23:2,6 24:5,21	197:11 228:11
231:13	99:9	<b>briefed</b> 25:14 35:1	25:5,15,17 26:22	<b>buy</b> 95:12,13
<b>bit</b> 4:15 6:13 9:17	<b>boats</b> 102:3,5	35:2	27:1,3,4,9,13 28:1	195:21 198:12
23:3,19 25:6	195:22 196:1,21	<b>briefing</b> 10:13	28:3,9 29:4,7,14	<b>buying</b> 95:8
26:18,20 27:13	232:3	42:11 46:20 47:3	30:5 31:5,6,7,20	
30:11 33:6 48:1,5	<b>BoatUS</b> 268:19	47:7,10 48:22	32:4,10 33:6,14	
48:16,19 54:19	<b>bodies</b> 77:6	52:21 92:21 187:8	33:20 36:15 37:20	
59:9 61:17 67:2	<b>body</b> 56:20 57:10	240:1	66:6 67:17 114:14	
				<b>C</b>
				<b>C</b> 3:1
				<b>Cabinet</b> 57:9 58:7
				<b>calendars</b> 49:17

<b>Calhoun</b> 1:13	209:11	<b>cell</b> 85:1,2	170:12 178:14	254:19
<b>California</b> 162:10 257:9	<b>Captains</b> 138:17	<b>cells</b> 85:2	180:1,4,12 181:21	<b>challenging</b> 4:13
<b>California-Nevada</b> 162:4	<b>capture</b> 248:1 251:18	<b>ensorship</b> 8:15	181:21 183:9,13	<b>champions</b> 49:20
<b>call</b> 42:3 45:7 80:20 86:17 90:7 133:5	<b>captured</b> 136:7	<b>center</b> 2:2,4,21 26:11 34:9,13	185:4,8,21 187:7	<b>chance</b> 6:16 53:14 67:22 68:14,20,22
139:16 199:22	<b>card</b> 36:20 58:20	101:8,10 146:22	187:12,20 188:4	73:8 157:17 236:1
221:18 225:6	<b>care</b> 40:8 98:6 110:22 195:15	167:13 215:14	190:1,14 191:22	243:10
235:7,8 260:18	215:18 234:3	252:10	192:7 193:20	<b>change</b> 9:3 27:19
<b>called</b> 26:14 41:3 65:16 67:4,7	<b>career</b> 178:20 256:20	<b>centered</b> 247:12	194:12 201:7	37:17 65:22 75:7
134:14 158:17,18	<b>careful</b> 52:1 62:20 69:19 229:6	<b>centers</b> 21:19 26:4 91:9	207:8 208:15	75:8 119:2 155:18
171:7 204:10	<b>cargo</b> 51:7,22	<b>certain</b> 6:19 69:7 76:16 79:2 86:17	209:14 213:5	156:2,8 185:17
239:9 240:12	<b>Carol</b> 1:20 186:8	241:13	216:9 219:9	240:2 241:3
<b>CALENDER</b> 2:13	<b>Carolina</b> 1:13	<b>certainly</b> 19:22 21:3 61:7 76:14	220:13 222:12	<b>changed</b> 16:11 65:4
<b>Callender's</b> 199:1	<b>carriage</b> 103:18	78:14 80:13 87:15	223:5 224:10	74:11,14 82:17
<b>calling</b> 84:20 139:19 239:22	<b>carrier</b> 84:1	92:16 93:22 113:7	225:1,11 226:6,12	84:11 134:21
<b>calls</b> 34:20 183:7 236:6 248:10	<b>carries</b> 244:12	123:20 126:5	226:21 227:6,10	157:7 256:12
<b>Cameron</b> 51:18	<b>carry</b> 60:20 103:19	131:17 137:17,19	227:21 228:10,17	<b>changes</b> 40:17 41:2
<b>candidates</b> 173:5	<b>cartographer</b> 171:1	148:6 151:13	229:12 231:4,8,19	41:13 44:2 106:3
<b>Cantwell</b> 47:12	<b>cartographers</b> 77:13 83:17	156:5 160:8	232:1,7,10,21	106:4 156:1
<b>cap</b> 28:12	<b>cartographic</b> 16:10	161:16 168:11	233:11,17 234:9	199:17 241:12
<b>capabilities</b> 97:21 197:9,18 221:2	<b>case</b> 21:15 83:12,20 84:6 87:6 96:16	171:19 175:22	234:16 235:9,18	<b>changing</b> 76:18,20
239:3,4	100:2 121:20	178:7 184:18	237:16 238:2	233:13
<b>capability</b> 13:10,11 13:12,13 111:5,18	181:10 209:18,20	193:22 195:1	239:21 241:19	<b>Chappell's</b> 14:8
112:13 121:16	210:5,7 223:20	209:21 229:3,8	242:18 243:12	<b>charge</b> 4:9 17:18
197:21 199:21	224:13	237:11 238:21	244:4,15 245:19	19:2 192:13 193:7
200:10,11 223:6	<b>cases</b> 13:18 86:21 87:2 88:18 138:11	254:18 257:21	245:22 246:3	245:12
<b>capable</b> 156:13 223:16 228:18	163:21 211:17	<b>certificates</b> 154:17	247:8 249:9,21	<b>charged</b> 8:4
262:20	<b>catch</b> 132:4 200:17 228:5	<b>certified</b> 16:21 105:6	250:3,21 251:5	<b>Charleston</b> 1:13
<b>capacities</b> 177:10	<b>catch-up</b> 122:7	<b>certify</b> 105:4,5	253:8,21 256:9	4:7 100:10 119:13
<b>capacity</b> 13:14 174:2 177:14	<b>categories</b> 78:20	<b>chain</b> 80:21 81:9 99:3 231:9	258:12,14,15,18	215:14
187:2 245:3	<b>category</b> 91:14 192:17 193:16	<b>chair</b> 1:14,16,16 4:5 6:2,9 7:15 8:1	259:3,9,10,21,21	<b>chart</b> 52:11 76:14
<b>capital</b> 130:6 194:1 237:5,9	221:3,4	9:22 10:7 12:5	260:16 261:9,18	76:15 79:5,13,15
<b>Capitol</b> 23:19	<b>Caucus</b> 49:8,12 52:19 53:12	15:5 16:1,6 17:5	261:20 262:4,12	81:10,11,13 84:11
<b>caps</b> 40:19	<b>caught</b> 96:9	20:5 21:6 22:16	263:3 266:8,11,14	85:13,13 86:6
<b>captain</b> 2:12,17 51:18 83:19 90:4	<b>ceiling</b> 31:11 108:21 109:2	22:19 39:10 57:13	266:22 267:8	90:3 92:7 94:9
	<b>celebrated</b> 144:5	59:17 64:3,9,22	268:15 269:6,22	95:8,9 100:10,12
		65:9 67:18 69:21	270:6,9,13,22	100:18 102:11,13
		71:5 72:20,22	271:6,21	102:14 105:6,11
		73:10,15 130:16	<b>chairman</b> 73:5 233:1 266:3	105:13 107:16
		130:22 131:13	268:14	108:8 113:15,16
		149:6 168:20	<b>chairs</b> 184:8 258:13 265:22	119:1,1 120:7
			268:3 270:2	123:8 128:19
			<b>challenge</b> 114:20 147:3 174:4	148:20 190:4
			213:12	192:8 225:12
			<b>challenges</b> 117:12	<b>charted</b> 87:3
				<b>charting</b> 14:6 29:4 75:4,15,22 77:10

80:15 86:22 101:4 127:11 133:6 205:14 <b>charts</b> 11:12 41:11 75:9,18 77:17 81:4,7 82:8,10,19 84:2,4 85:3,9 86:11,17 87:7 91:12,16 92:1,8 93:13,19 94:21,22 95:7,21 96:5,11 98:7 100:19 101:10,18 102:15 106:9 107:17,19 108:10 112:19 113:8,10,14,17 119:9,13 124:9 128:16,17 129:1 <b>cheap</b> 248:9 <b>check</b> 73:6 237:22 261:8 <b>check-ins</b> 138:14 <b>checkbox</b> 154:17 <b>checked</b> 269:2 <b>checkout</b> 131:4 <b>Cherry</b> 83:13 <b>Chesapeake</b> 146:20 <b>Chief</b> 2:9,12,16,17 90:3 <b>child</b> 129:8 <b>childish</b> 15:18 <b>chime</b> 122:10 <b>chose</b> 91:18 <b>Chris</b> 10:19 267:2 <b>Chukchi</b> 111:16 <b>chunk</b> 38:22 49:16 <b>circle</b> 216:10 <b>circulate</b> 231:5 233:8 270:8 <b>circumstances</b> 90:22 91:9 <b>cite</b> 212:14 <b>cited</b> 211:18 <b>citizens</b> 173:13,19 174:1 182:3 <b>citizenship</b> 182:9 <b>civil</b> 16:21	<b>CJS</b> 32:2 34:11,20 <b>claim</b> 108:22 <b>clarification</b> 190:15 216:20 <b>clarify</b> 7:19 172:2 187:1 262:22 <b>clarity</b> 232:21 258:12,21 <b>class</b> 78:21 <b>classes</b> 172:19 <b>cleaned</b> 152:18 <b>clear</b> 12:16 44:22 70:22 114:10 186:9,20 190:18 191:7 225:3 241:9 <b>clearly</b> 11:8 85:17 88:7 233:22 <b>click</b> 142:1 <b>clicks</b> 103:12,13 <b>climate</b> 135:3 <b>climbing</b> 79:14 <b>close</b> 23:8 32:17 33:17 161:20 186:13 191:10 <b>closely</b> 86:12 133:16 <b>closes</b> 255:4 <b>cloud</b> 80:21 94:14 99:2 <b>clue</b> 130:20 <b>clunky</b> 107:3 <b>CMTS</b> 57:9 204:9 <b>co-chair</b> 258:16 266:11,21 269:13 269:15 <b>co-chairing</b> 258:19 <b>co-chairs</b> 265:22 266:2 268:3 <b>co-operative</b> 174:13 <b>CO-OPS</b> 2:22 53:2 99:14 123:3 131:16 160:1 <b>coast</b> 2:12 12:8 15:16,17,19 43:6 43:7,9,15 44:19 47:1 48:15,18	49:5 67:20 68:4,5 68:10,22 69:12 73:22 75:1,11 91:6 93:4 94:7,9 94:11 97:2 103:16 103:18,20 104:2,5 104:9,15 133:13 134:1,9 139:19 145:14 146:11 151:13 193:8 255:22 258:4,5,7 258:10 <b>coastal</b> 2:2 4:16,20 10:13,17 11:2,7,9 11:18 15:7 21:18 22:12 26:3,4,9,11 26:12,15 31:22 34:9,12 39:22 42:2 49:9 50:4,4 50:11,11 55:14,14 55:15,17 57:21 58:17 67:8 68:11 88:10 111:12 132:6 134:14,22 135:14 149:19 150:20 151:4 168:4 177:16 197:8,9,15 198:2 204:4 215:13 223:12 225:21 229:3 <b>cobwebs</b> 157:11 <b>codes</b> 107:11 <b>coffee</b> 182:16 <b>cogent</b> 189:3 <b>coincided</b> 144:8 <b>coincidentally</b> 63:9 136:7 <b>cold</b> 253:12 <b>collaborated</b> 143:17 151:8 <b>collaborating</b> 164:14 <b>collaboration</b> 151:12 <b>colleagues</b> 86:18 <b>collect</b> 13:4 21:21	68:9,13 75:5 119:21 151:15 152:4 217:19 218:4,19 <b>collected</b> 13:10 44:8 94:16 150:18 151:5,7 155:15 178:3 <b>collecting</b> 77:21 104:3 160:3 218:5 <b>collection</b> 12:22 13:16 27:8 68:16 145:6 152:3,16 153:5,14,19 177:19 178:11 196:16,19 217:14 218:10 <b>collectively</b> 12:21 271:12 <b>Colorado</b> 166:20 <b>Columbia</b> 51:4 <b>column</b> 27:17 <b>combination</b> 7:22 225:8 <b>combined</b> 213:4 <b>come</b> 19:7 23:7 28:10 33:9 68:19 69:15,18 74:20 79:6 82:19 85:14 85:20 99:11 105:7 113:4 151:18 153:12 159:13 181:1 217:11 227:11,15 233:15 248:15 252:3 <b>comes</b> 69:2 75:6 168:9 210:9 212:7 224:14 242:12 <b>COMET</b> 166:19 <b>coming</b> 7:20 19:18 37:16,18 88:9 91:13 99:4,14,15 99:15 106:18 116:11 123:13 141:5 148:4 172:3 174:18,21 238:11 267:18	<b>Command</b> 91:9 <b>comment</b> 59:18 65:17 73:5 143:16 147:15 254:22 264:21 265:9 <b>comments</b> 5:9 93:16 104:3 118:6 129:22 147:13 180:8 183:10 209:2,3 233:7 234:13 265:4,5 <b>commerce</b> 1:1 32:20 33:11 47:12 47:17 48:12 52:8 53:22 56:20 57:10 58:2 134:4 148:9 203:7 212:6 213:21 221:17 257:7 <b>commercial</b> 80:9 88:21 96:6 97:14 <b>commitment</b> 253:10 <b>committed</b> 148:11 <b>committee</b> 3:16 17:18 32:22 33:1 50:6 56:18 60:13 61:22 69:6 87:9 87:10 138:15 181:4 182:1 185:20 205:1 233:8 235:15 236:20 244:1 247:18 248:12 249:4 253:15 266:15 267:12,13 268:14 271:10 <b>committees</b> 45:15 247:15 248:5 271:14 <b>common</b> 14:4 40:3 107:4 217:11 222:16 263:6,14 263:17 <b>communicate</b> 62:16 236:6 249:1 249:1
---	---	---	--	---

<b>communication-...</b> 132:14	128:12,20	22:21 23:2 52:19	84:9,12,19 118:19 119:12	114:16 167:18 193:8
<b>communications</b> 136:22 267:21	<b>composed</b> 8:4	53:10,12 139:7 191:18	<b>context</b> 80:17 89:19 94:11	<b>convene</b> 167:10
<b>communities</b> 58:16 58:17,18 83:1 98:21,22 131:22 133:3 136:14 137:4 139:12 142:7 167:17 171:18	<b>comprises</b> 34:4	<b>Congressman</b> 40:11 43:18	<b>continual</b> 106:10	<b>convenient</b> 75:21
<b>community</b> 7:9 86:19 123:11,12 132:11 134:16 140:18 143:4,21 165:8,16,20 166:2 166:6 167:17 181:9 257:15	<b>concept</b> 202:15 227:12 240:6 252:6	<b>Congresswoman</b> 50:22	<b>continue</b> 20:1 40:4 43:4 69:11 124:19 125:10 130:9 131:13 153:15 156:6 163:6,20 167:2 168:5 174:20 177:20 178:12 182:11 195:12 197:4 204:1 205:16	<b>conversation</b> 59:3 98:9 204:6
<b>companies</b> 81:20 85:8 96:15 144:18	<b>concern</b> 45:14 63:2 110:3 112:12,14 120:14 170:16	<b>conjunction</b> 139:4 166:19	<b>connected</b> 260:17	<b>conversations</b> 5:21 261:21
<b>company</b> 83:21 144:16	<b>concerned</b> 42:19 118:7 187:2 234:4	<b>connection</b> 219:16	<b>connections</b> 164:6	<b>cool</b> 157:14 171:5,6
<b>comparison</b> 41:4	<b>concerning</b> 60:12 235:20 237:1	<b>consensus</b> 186:14 188:6 233:10 254:2	<b>conservancy</b> 43:11	<b>coordinate</b> 18:14 18:16 218:20
<b>comparisons</b> 158:22	<b>concerns</b> 41:15 43:20 44:3 110:1 118:10 120:15 162:19	<b>consequences</b> 130:15	<b>conservative</b> 50:12	<b>coordinated</b> 12:7
<b>compatible</b> 107:22	<b>conclude</b> 59:12	<b>consider</b> 5:4 61:8 221:18 222:1	<b>consider</b> 5:4 61:8 221:18 222:1	<b>coordinating</b> 56:21 90:11
<b>competencies</b> 156:14	<b>concluding</b> 4:10	<b>consideration</b> 192:2 208:12	<b>continuing</b> 14:17 36:9,16 37:2,7,12 37:21 71:16 72:3 169:5 193:5	<b>coordination</b> 11:21 14:3 42:20
<b>competitive</b> 105:10	<b>conclusion</b> 73:11 84:5 186:10	<b>considering</b> 42:21 47:4 163:18	<b>continuous</b> 144:6	<b>Coordinator</b> 2:17 2:20
<b>complaining</b> 85:8	<b>concurrent</b> 180:17	<b>consist</b> 236:4	<b>contour</b> 17:1 85:10 85:15,21 118:20	<b>copy</b> 103:19
<b>complaints</b> 107:4	<b>conduct</b> 169:16	<b>consistency</b> 271:20	<b>contours</b> 119:15,22	<b>core</b> 156:14
<b>complete</b> 8:5 131:4 152:7 217:12	<b>conducted</b> 160:11 165:18	<b>consistent</b> 22:6 117:2 155:7 201:1 245:13	<b>contract</b> 13:12 47:19,21 109:1,6 109:8 117:21 151:20 246:20	<b>corner</b> 14:19
<b>completed</b> 143:12 145:5 152:16 163:15 216:22	<b>conference</b> 98:15 138:17 235:8 236:6 254:20 255:6 261:15	<b>constituencies</b> 267:17	<b>contracted</b> 144:16 178:4 197:2	<b>Corps</b> 6:21 11:18 12:4,17 58:11,13 59:1 122:1 133:17 139:19 146:11 151:8 159:22 164:7 201:16 202:2,19 203:11 205:6,9 206:4,19 208:6 209:21,22 210:6,9 212:1,6 212:16 213:4,11 213:15 215:5,9 218:5 219:2 225:18 243:14,14
<b>completely</b> 104:14 193:21	<b>conferences</b> 138:5	<b>constructed</b> 74:9 86:5	<b>contracting</b> 15:2 21:21 30:21 41:10 173:22 178:2 215:9	<b>correct</b> 21:17 84:9 95:16 249:19 250:6 266:1
<b>completing</b> 26:14 174:17	<b>confluence</b> 140:8	<b>construction</b> 24:14	<b>contractor</b> 102:4 123:5 125:7	<b>correlation</b> 64:11
<b>complicated</b> 74:21 167:1	<b>confusions</b> 158:8	<b>consultation</b> 191:10 245:12	<b>contractors</b> 13:20 21:14 48:3,6 112:3 125:19 151:15	<b>CORS</b> 166:4,5 175:16 176:1
<b>comply</b> 78:22	<b>conglomeration</b> 128:18	<b>consumer</b> 91:17	<b>contracts</b> 47:19 48:7,8 108:18,19 109:11,14 215:9	<b>cost</b> 41:3 112:3 122:6 216:4,14
<b>component</b> 39:2 68:9 90:18	<b>congratulations</b> 147:18	<b>contact</b> 98:5 132:21 221:17	<b>Contrary</b> 66:15	<b>costs</b> 36:1 176:14
<b>components</b> 13:22 19:3 127:12	<b>Congress</b> 28:1,10 28:10 31:7,8 36:4 37:16,17 38:7 44:16 49:18 60:14 62:8,11,16 65:5 65:15,19 66:5 126:9,12,15 164:18	<b>contacts</b> 60:5	<b>contrast</b> 30:17	<b>couch</b> 195:6 196:4 197:16
	<b>congressional</b> 3:8	<b>containerization</b> 257:7	<b>contributions</b> 272:5	<b>council</b> 17:10 19:2
		<b>contemplating</b> 248:8	<b>control</b> 8:14 114:16	
		<b>content</b> 9:8 61:20		

<b>counsel</b> 71:21 237:22	111:10 115:15 205:10	18:1,7,21 20:8 21:21 22:14 35:16	169:18	<b>dedication</b> 140:11 143:5 181:16 184:5,19
<b>count</b> 88:10 258:5	<b>cross</b> 135:12	41:11 44:7,10,11	<b>daunting</b> 201:15	<b>dedications</b> 143:3
<b>Counties</b> 43:10	212:20	51:17 52:3,4	<b>David</b> 1:18 186:8	<b>deep</b> 78:22 83:6 207:16
<b>countries</b> 92:4 119:19	<b>crosscut</b> 53:10	54:18 68:9,11,13	<b>day</b> 3:5,5 4:3,3,6 9:21 84:15 99:5 102:4 114:6,22 138:18 142:18 143:21 217:21 254:21 255:2,3 263:13 264:17,17 265:10	<b>deepening</b> 225:17
<b>country</b> 16:12 34:13 86:22 96:15 121:21 160:12 167:6	<b>crossover</b> 8:18	68:16 75:5 76:13	<b>day-to-day</b> 12:21	<b>deeper</b> 191:9
<b>counts</b> 176:2	<b>crowd</b> 76:6 220:1	77:21 82:3,21	<b>days</b> 59:11 114:5,8 115:4 135:5 170:4 187:15 193:14 194:1 199:13 249:10 260:22 272:6	<b>defense</b> 12:20
<b>couple</b> 10:10 23:13 38:6 40:17 41:2 55:4,9 59:11 82:20 87:1 99:1 110:6 121:3 126:17,22 127:17 135:5 143:12 163:10 180:15 194:22 198:3,8 207:11,22 208:8 212:2,14 243:1 252:17 263:2	<b>crucial</b> 196:9	83:1 89:2,6,17	<b>dead</b> 256:17	<b>defer</b> 261:10
<b>course</b> 10:10 22:4 38:2 91:4 93:21 95:22 122:4 137:7 140:16 170:4 175:15	<b>cruise</b> 85:7,19 86:16 87:4 118:19	98:2,19 99:22	<b>deal</b> 28:7,9 31:6 57:17 106:22 124:3,5 144:9 203:16 234:10 237:6	<b>define</b> 45:10 268:6
<b>court</b> 228:12	<b>cup</b> 182:16	115:10 119:21	<b>dealing</b> 59:11 136:1 230:9 257:13	<b>defining</b> 211:3
<b>Courtyard</b> 1:12	<b>current</b> 11:21 94:20 129:1 134:6 200:11 242:20	124:3,6,8 128:19 132:2 134:4 143:19 145:6,14 145:20 150:19,19 151:5,16 152:18 153:19 154:3,8 155:3,8,14 159:17 160:3 165:11,11 166:8 175:15,20 178:3 194:11 195:18 196:7,15 196:19 198:2 208:20 209:1,4,5 209:6 216:14 217:14,15,18,19 218:4,11 221:2 225:7 228:19 239:1 243:16 252:7	<b>death</b> 54:8	<b>definition</b> 77:19 241:6
<b>cover</b> 250:19	<b>customer</b> 2:16 92:19 102:9 133:12 136:11 168:8	225:7 228:19	<b>Deborah</b> 186:7	<b>degree</b> 172:9,20 252:22
<b>covers</b> 230:16	<b>customers</b> 78:6,18 92:18 95:4 108:4 138:1	239:1 243:16	<b>debris</b> 26:8	<b>Delaware</b> 179:3
<b>crack</b> 37:20 216:18	<b>customize</b> 51:13	252:7	<b>decades</b> 101:15	<b>deliberate</b> 78:5 87:19 89:8
<b>craft</b> 214:9	<b>cut</b> 26:18 119:22 191:7	<b>database</b> 82:4 104:16 106:15 108:1,5 113:6 119:9 160:5	<b>December</b> 37:7,8 38:3	<b>deliberations</b> 3:17 5:4 180:14 185:20 186:7
<b>crafted</b> 203:15	<b>cutoff</b> 7:13 10:2	<b>databases</b> 97:11	<b>decide</b> 189:18 214:11 264:17	<b>delineating</b> 16:11
<b>crank</b> 120:4 123:20	<b>cuts</b> 65:16	<b>dataset</b> 209:7,9	<b>decided</b> 269:22	<b>deliver</b> 80:18 89:13 91:21 126:14 134:2 139:13 144:14 168:17 220:6 232:17
<b>crazy</b> 32:12	<b>cycle</b> 14:8,14 201:11 249:11	<b>datasets</b> 107:21	<b>decision</b> 44:13 88:15 89:14,21 100:1 112:9 260:5 261:10	<b>delivering</b> 78:1 80:6 99:22
<b>create</b> 102:19 158:11,16 208:14	<b>Cypress</b> 1:13	<b>date</b> 177:9 242:5	<b>decisions</b> 78:8 81:16 84:13	<b>delve</b> 239:14
<b>creating</b> 123:8	<hr/> <b>D</b> <hr/>	<b>dates</b> 235:10	<b>decrease</b> 24:21 30:6	<b>demand</b> 80:15 82:16 92:7 104:21 104:22 105:2 123:13
<b>creative</b> 105:8	<b>D.C</b> 24:2 262:5 264:3	<b>datum</b> 100:21 101:11,19 154:14 154:16,20 155:1 155:20 156:4 158:7,12,13,14,15	<b>decreased</b> 64:6	<b>demands</b> 119:6 171:14
<b>creativity</b> 239:16	<b>damage</b> 115:9	<b>datums</b> 133:9,18 150:8 153:7 158:8 165:6 166:12,13 166:17,18 167:1	<b>decreases</b> 122:6	<b>democracy</b> 182:7
<b>creature</b> 80:4	<b>Dangermond</b> 98:11		<b>dedicate</b> 139:13	<b>demographic</b> 181:6 181:11 182:5
<b>crept</b> 30:11	<b>dangers</b> 86:2			
<b>crew</b> 83:22	<b>Darren</b> 2:20 143:15 239:12 251:12			
<b>crews</b> 137:2	<b>dash</b> 271:7			
<b>critical</b> 66:11	<b>data</b> 11:11,13 12:7 12:8,21 13:2,10			

116:9	31:17 35:17,18	15:16 43:6,7,9,15	208:1 248:14	199:1 200:4
<b>demonstration</b>	123:15 141:20	44:19 48:15,18	263:17 270:18	205:18 223:16
156:12	153:6 155:10	67:20 68:4,5,10	<b>disease</b> 186:18	232:8 238:17
<b>denied</b> 55:11	159:10 169:13,22	68:22 69:12 94:7	<b>disparate</b> 27:8	251:12 269:21
<b>Department</b> 1:1	198:2,15 205:16	103:17 104:3	<b>Display</b> 79:5	<b>dollars</b> 68:16 69:13
56:19 58:2 67:12	226:14 228:20	119:21	<b>dissemination</b>	176:13 179:13,14
213:21 240:7	229:4	<b>digitized</b> 18:20	171:19	223:18
<b>dependent</b> 187:4	<b>developments</b>	<b>dime</b> 218:10	<b>distinct</b> 195:3	<b>domain</b> 221:22
<b>depending</b> 105:13	150:7	<b>dimensions</b> 121:22	258:6	222:6
106:8 110:21	<b>develops</b> 134:9	<b>dinged</b> 144:19	<b>distress</b> 179:2	<b>donating</b> 257:17
<b>depends</b> 145:16	<b>device</b> 79:17	<b>dip</b> 115:1	<b>distributed</b> 82:4	<b>door</b> 29:13,15,16
<b>deploy</b> 141:21	<b>devoted</b> 110:9	<b>direct</b> 100:9	<b>Distribution</b> 103:4	29:20 185:14
<b>depth</b> 22:5 85:5	<b>DFO</b> 262:18,20	<b>direction</b> 126:7	<b>district</b> 50:17 52:7	197:20
<b>Deputy</b> 2:13 90:5	<b>DHS</b> 213:6,6	225:13 237:21	<b>districts</b> 50:4	<b>doubled</b> 31:1
<b>describe</b> 74:10,15	<b>dialogue</b> 71:20	<b>directional</b> 96:4	203:11	<b>doubt</b> 229:12
78:17	203:6	<b>directly</b> 97:9 108:9	<b>diversity</b> 47:6	<b>doubtful</b> 243:8
<b>described</b> 63:22	<b>dialogues</b> 248:15	149:20 155:3	<b>divert</b> 148:10	<b>download</b> 82:9
71:2 209:19	<b>Diego</b> 78:12	<b>director</b> 2:3,4	<b>divided</b> 85:2	106:22 107:9
<b>deserves</b> 234:7	<b>difference</b> 24:15	52:17 73:21	<b>Division</b> 2:10,15,18	<b>downloaded</b> 107:5
<b>designated</b> 2:8	27:20 32:18 34:5	131:16 148:18	90:3 176:17	145:15
73:22 177:18	67:1 88:7 248:4	261:21,22	<b>DLA</b> 91:19,20,21	<b>downloading</b>
<b>designees</b> 19:12	<b>different</b> 19:3,4,11	<b>directors</b> 191:10	<b>DOC</b> 271:18	145:12
<b>despite</b> 23:17	22:8 44:22 51:16	238:19	<b>dockside</b> 117:19	<b>downloads</b> 175:14
<b>detail</b> 224:14 267:4	55:15 74:15 76:5	<b>disagree</b> 66:13	<b>document</b> 82:18	<b>dozen</b> 248:13
<b>detailed</b> 198:9	79:12 80:4,5,11	<b>disappointment</b>	<b>DoD</b> 13:11 102:21	<b>Dr</b> 1:18,18,19 3:9
<b>details</b> 127:19	81:8,14,15,20,21	71:18	212:21 213:4,7	10:19 22:18,22
159:1	82:13,14 83:3,4	<b>disaster</b> 109:10	243:5,12,21	39:12 53:5 61:1
<b>determined</b> 36:22	86:9 87:11,17,21	130:2 146:22	<b>dog</b> 243:1	63:16 64:5,13
262:6,7	89:18 91:6 97:22	167:12	<b>DOI</b> 45:11,13	65:12 66:18,22
<b>detest</b> 256:14	101:5,19 102:19	<b>disband</b> 244:5	213:2	68:3 71:8,8,11
<b>develop</b> 51:11	104:17 115:22	<b>discoverable</b> 44:11	<b>doing</b> 5:20 22:8	72:15 124:22
58:12,15 89:4	119:19,20 122:20	<b>discuss</b> 231:13	25:6,9,11 35:4	126:8,11,16 143:6
151:17 152:21	123:18 127:12	232:19 254:1	39:6 42:16,19	148:6 199:1 204:7
154:9 155:22	132:22 140:9	263:6	46:1 47:14 50:16	205:3,8 213:8
172:18 195:19	142:20 158:8,20	<b>discussed</b> 9:2 19:5	51:19 54:1 58:15	214:13 250:2
200:7 201:17,18	159:5 160:11	236:13 254:12	58:19,22 60:19	<b>draft</b> 4:10 51:21
230:8,10,14 236:7	166:16 174:6,11	<b>discussing</b> 231:11	62:12 72:8 73:2	78:22 83:6 231:3
256:5	176:3 178:1,6	252:5 253:11	74:19 78:5 95:19	<b>drafters</b> 230:20
<b>developed</b> 74:13	190:16,21 193:21	<b>discussion</b> 3:6 4:4	100:4 123:19	<b>drain</b> 171:13
113:18 117:8	194:6 209:5 215:3	7:8 55:22 57:2,7	133:3 135:16,19	<b>dramatic</b> 63:14
122:1 170:5 224:6	217:9 239:13	60:13,15 70:3	136:10,13 138:4	<b>draw</b> 64:10 65:1
<b>developers</b> 81:21	240:8 242:22	126:2 187:18,21	138:11,13 140:11	85:19
99:6,7,21 108:11	<b>difficulties</b> 192:19	191:2 194:6 200:8	141:6 142:6,11	<b>dredging</b> 202:20
<b>developing</b> 77:9	<b>difficulty</b> 212:22	201:5 202:16	144:15 150:8	225:18
106:19 170:6	<b>dig</b> 191:9 237:19	234:21 235:5	156:13 159:3	<b>drinking</b> 203:12
196:10	<b>digging</b> 191:11	<b>discussions</b> 3:16	165:15 168:10	<b>drive</b> 64:12
<b>development</b> 2:12	<b>digital</b> 12:8 15:16	78:16 185:20	170:7 197:12	<b>driven</b> 144:10

196:20 229:1	185:12 188:14	164:3,19 165:7,13	<b>enabled</b> 105:15	<b>engineers</b> 115:16
<b>due</b> 20:19,20	199:6 200:2	168:4	<b>ENC</b> 84:20,21,22	115:19 116:5,9,10
215:19 262:14	202:15 219:10	<b>eHydro</b> 190:9	85:12 106:6,21	117:13 133:17
<b>dues</b> 268:21	224:12 227:20	205:16 206:3,7,17	107:1 113:9 119:1	139:20 142:18
<b>Duluth</b> 263:2	228:2	208:6	145:15 190:8	159:22 169:4
<b>duplication</b> 8:15	<b>editorial</b> 8:14	<b>eight</b> 19:15 47:19	<b>encapsulating</b> 5:1	202:2,19 203:11
9:4	<b>educate</b> 142:18	109:17 112:2	<b>enchilada</b> 130:4	205:6,9 213:4
<b>duplicity</b> 6:19	<b>education</b> 34:15	184:8,9,10,12	<b>encoded</b> 84:8 86:1	<b>enhance</b> 147:10,11
<b>dust</b> 157:11	136:13 144:1	201:17	<b>encompasses</b>	196:8
<b>dynamic</b> 257:5,14	150:12 169:5,8,13	<b>either</b> 4:22 7:7	202:22	<b>enhancing</b> 197:21
<b>E</b>	<b>educational</b> 172:20	19:13 50:6 65:14	<b>encourage</b> 35:22	<b>enjoying</b> 6:4
<b>E</b> 1:20 3:1,1	<b>Edwing</b> 2:4 3:13	67:22 68:2 71:12	60:1 148:5,16	<b>enormous</b> 21:12
<b>e.g</b> 206:2	121:10 127:21	114:22 179:14	166:13 171:19	263:12
<b>earlier</b> 144:12	130:19 131:15,16	189:15,20 214:5	174:8	<b>ensure</b> 120:17
153:2 221:5	139:1 147:16	231:12 254:6	<b>encouraged</b> 13:13	166:7 195:11
238:22 262:13	148:8,14 149:4	<b>election</b> 37:16 38:9	<b>encouraging</b> 5:18	196:5
<b>early</b> 22:17 59:1	178:16 180:3	<b>electronic</b> 77:9	<b>ENCs</b> 82:10 83:16	<b>enter</b> 4:6
62:17 63:3,13	<b>EEZ</b> 111:8	79:5,7,17 81:11	84:6,7,19 85:2	<b>enterprise</b> 97:8,10
72:16 117:12	<b>effect</b> 240:10	82:9 91:2 95:4	86:1 87:1 107:8	97:18
<b>earmark</b> 33:22,22	<b>effective</b> 18:18	104:17 119:3,5	107:10 118:12	<b>enthusiasm</b> 174:21
<b>earmarks</b> 167:3	110:14 128:10	<b>electronics</b> 96:13	120:5 220:8	184:20
179:14 202:4	182:8 197:16	<b>element</b> 63:14	<b>endeavors</b> 182:11	<b>entire</b> 152:11
<b>ears</b> 137:12 210:17	207:21 208:6	195:10 206:9	<b>ended</b> 91:16 94:15	257:20
<b>earthquake</b> 157:8	213:19 267:17	216:11	102:7 161:9	<b>entities</b> 11:17
<b>easier</b> 42:4 225:11	<b>effectiveness</b>	<b>elements</b> 169:8	<b>endorsement</b>	<b>entity</b> 19:17 45:12
<b>easily</b> 104:10	147:11 247:12	207:9 222:2	242:10	<b>envelope</b> 88:12
108:10 188:20	252:10	<b>elevate</b> 211:21	<b>ends</b> 244:14	<b>environment</b> 95:5
213:3	<b>effectuating</b> 206:20	<b>elevating</b> 129:22	<b>energy</b> 90:15	104:21 105:12
<b>Eastern</b> 272:3	<b>efficiency</b> 51:6 70:7	<b>elevation</b> 154:17	184:19	182:14
<b>easy</b> 160:2 233:3	72:17 194:3	155:7 218:15	<b>engage</b> 182:5,6	<b>environmental</b>
<b>ECDIS</b> 79:4 81:12	<b>efficient</b> 98:20	<b>elevations</b> 154:20	203:6 210:11	14:5 257:10
82:11 83:7,9 84:7	121:15 134:3	<b>eliminate</b> 8:15	237:12	<b>envisioned</b> 82:3
87:4 118:21	176:8 178:7	<b>else's</b> 225:20	<b>engaged</b> 91:19	<b>envisioning</b> 84:17
119:18 220:8	193:18	<b>email</b> 4:22 5:12,21	241:6	<b>EPA</b> 21:12 22:9
<b>Eckert</b> 90:5	<b>efficiently</b> 70:18	54:14 107:4	<b>engagement</b> 191:4	<b>epic</b> 158:22
<b>ecological</b> 135:10	122:5	253:16	236:18,19,21	<b>equipment</b> 125:19
135:13,18	<b>effort</b> 49:17,21	<b>emails</b> 236:6	237:1 248:22	237:7
<b>economic</b> 176:9	50:20 51:11 62:1	248:15	250:16,19 251:4	<b>eReader</b> 104:7
195:2,8,17 196:8	62:4,5 67:12	<b>embankments</b>	263:18 266:21	<b>especially</b> 42:21
198:15 223:13	72:14 76:1 78:6	16:18	267:7,7,11,14	95:17 97:21 102:9
228:20,22	78:14 80:6 84:18	<b>emergency</b> 70:9	269:19	154:7 171:3
<b>economy</b> 25:5	87:19 89:9 95:17	<b>emergent</b> 87:15	<b>engaging</b> 54:7,12	204:14 205:6
182:14	135:12 143:1	<b>emerging</b> 247:13	55:2 210:13	226:4
<b>ecosystem</b> 81:19	151:22 163:22	254:7	267:16	<b>Esri</b> 98:11,13 113:7
89:9 94:15 135:5	215:12	<b>employees</b> 173:6	<b>engineer</b> 16:21	113:8,11 167:18
<b>ecosystems</b> 99:2	<b>efforts</b> 45:3 57:4,5	173:20 183:15	115:17	<b>essentially</b> 33:19
<b>Ed</b> 1:19 10:2	72:3 127:4 163:8	<b>enable</b> 161:6	<b>engineering</b> 173:1	86:8 87:11 88:14

106:7 113:21 115:9 <b>establish</b> 17:14 34:9,12 141:10 157:6 179:13,17 213:14 246:5 249:8 <b>established</b> 12:10 12:15 34:14 87:22 135:9 144:6 146:21 179:17 253:17 <b>establishing</b> 139:15 <b>estimated</b> 176:12 <b>Ethics</b> 271:18,20 <b>evaluate</b> 48:6 58:18 196:18,21 <b>evaluating</b> 14:20 <b>evaluation</b> 201:6 <b>Eveline</b> 251:11,22 266:1,2 269:6 <b>EVELYN</b> 1:17 <b>evening</b> 131:7 <b>event</b> 143:5 144:10 241:21 242:3 <b>event-driven</b> 142:12 <b>events</b> 18:10 142:17 174:7 <b>eventually</b> 124:2 <b>everybody</b> 73:3,16 114:10 136:4 140:22 179:9 227:1 255:5 264:8 265:13 <b>evolution</b> 95:1 <b>exact</b> 203:14 <b>exactly</b> 19:16 113:1 113:4 129:6 204:20 <b>example</b> 36:19 37:4 44:6,15 49:5 51:1 61:10 107:22 119:14 140:5 182:9 208:4 215:13 217:7 220:7,11,20	<b>examples</b> 76:21 81:22 83:5 89:3 127:1,5 142:5 144:10 170:1 207:22 208:1,8 212:2,14 214:15 214:21 221:11 <b>excellence</b> 228:19 <b>excellent</b> 96:21 <b>exception</b> 28:8 29:12,22 55:13 <b>exceptions</b> 33:20 <b>excited</b> 99:21 157:20 <b>excitement</b> 174:16 <b>exciting</b> 54:16 105:1 256:3 <b>excuse</b> 125:6 237:17 <b>execute</b> 123:4 244:22 <b>executed</b> 109:7 <b>executive</b> 98:15 148:18 <b>exercise</b> 185:10 <b>exhibits</b> 138:11 <b>exist</b> 17:2 34:1 118:21,22 172:10 206:1 207:2 253:19 <b>existing</b> 52:6 141:7 196:18 245:9 <b>exists</b> 217:18 <b>expanded</b> 129:14 <b>expanding</b> 150:11 <b>expansion</b> 57:21 202:19 <b>expect</b> 36:10 156:2 222:4 <b>expectation</b> 221:15 <b>expectations</b> 92:11 188:1 <b>expected</b> 51:21 <b>expedite</b> 153:5 <b>experience</b> 17:22 75:8 76:20 81:15 84:2 108:13 109:8	109:13 172:17 243:8 <b>experienced</b> 83:16 <b>experiences</b> 82:14 96:19 147:9 <b>experimental</b> 152:14 155:16,22 <b>expertise</b> 75:12 77:12 170:21 172:18 <b>experts</b> 182:4 237:20 246:10 <b>expiration</b> 242:5 <b>expire</b> 215:19 238:12 <b>expired</b> 39:17 40:1 238:14 <b>expires</b> 42:5,7 <b>explain</b> 166:22 267:3,10 <b>explaining</b> 9:12 166:17 <b>explanation</b> 128:4 <b>explode</b> 136:21 <b>exploration</b> 191:6 <b>explore</b> 208:20 267:16 <b>Export</b> 58:3 204:4 <b>exposure</b> 255:22 263:11 <b>expressed</b> 63:3 71:18 203:10 245:1 <b>expression</b> 59:20 <b>extended</b> 115:8,22 <b>extensive</b> 100:17 <b>extensively</b> 91:20 <b>extent</b> 92:18 137:15 173:12 225:22 <b>external</b> 30:17 35:9 43:9 67:3 68:17 210:15 246:20 <b>externally</b> 133:21 <b>extra</b> 34:17 39:8 252:17 <b>extracting</b> 76:10	<b>extraction</b> 111:15 <b>extramural</b> 31:22 32:13 <b>extraordinary</b> 257:17 <b>extremely</b> 116:8 165:12 168:18 <b>eye</b> 72:5 240:10 <b>eyes</b> 90:18 137:12 184:16 <hr/> <b>F</b> <hr/> <b>F</b> 2:8 3:1,12 <b>FAA</b> 214:16 216:4 <b>FACA</b> 60:13 181:11 235:6 248:4 261:2,6,11 262:22 263:13,16 263:16 264:3 <b>face</b> 180:18 <b>face-to-face</b> 248:6 <b>faced</b> 36:8 <b>faces</b> 53:17 <b>facilitate</b> 208:20 216:15 226:3 <b>facilitating</b> 207:4 <b>facilities</b> 24:12 <b>facility</b> 257:20 <b>fact</b> 10:19 14:22 113:8 124:18 150:17 186:5 194:16 207:2 223:15 <b>fail</b> 124:19 <b>failed</b> 15:12 <b>fair</b> 238:8 <b>fairly</b> 40:3,16 63:13 204:5 226:10 257:14 <b>Fairweather</b> 110:11 115:7,10 117:7 <b>fall</b> 149:20 150:9 189:1 221:5 233:16 246:18 252:8 <b>falling</b> 130:10 131:18	<b>falls</b> 213:5 225:21 <b>familiar</b> 26:10 36:15 39:17 54:8 214:4 244:9 <b>fantastic</b> 61:7 96:14 <b>far</b> 6:13 7:18 12:3 20:17 22:14 64:18 94:12 105:3 194:16 196:15 213:20 234:3 257:6 <b>Farinos</b> 99:8 <b>farther</b> 201:12 <b>fast</b> 15:3 <b>fast-track</b> 249:22 250:1 <b>fat</b> 31:7 <b>favorably</b> 33:13 <b>features</b> 107:11 <b>February</b> 262:13 <b>February-ish</b> 235:11 <b>fed</b> 19:14 171:5,6 171:10 <b>federal</b> 2:9 11:16 12:16 13:9,11,16 17:18 19:9,12 21:9 24:2,20 25:5 28:12 38:1 42:20 45:8 67:5 73:22 93:15 96:1 104:1 112:10 128:9 133:16 151:10,14 164:7 167:18,20 172:4 173:4,6,20 175:3 177:21 178:9 179:14 181:4,12 182:1 183:15 204:22 212:18 <b>feed</b> 155:9 215:18 235:16 <b>feedback</b> 133:2 137:5 142:10 146:6,7 162:20 165:15 167:9,16
--	--	---	---	--

167:19 168:6	<b>finally</b> 26:13 28:10 101:11,14	<b>fix</b> 86:13 125:8	147:21 157:10	188:11 231:12,16
<b>feedbacks</b> 147:7	<b>financial</b> 179:2	<b>fixed</b> 86:14	159:11,21 160:1	233:19,21 236:2
<b>feeding</b> 217:22	<b>find</b> 44:11 54:6	<b>flag</b> 244:13	173:16 174:1	236:13 237:2,14
<b>feel</b> 37:19 70:12	<b>finding</b> 92:10 120:5	<b>flavor</b> 127:13	204:19 237:13	240:5 241:22
189:4 207:8	105:10 219:5	<b>flavors</b> 82:20	245:15 260:11	242:4 272:7
229:20 238:19	223:9 264:10	<b>fleet</b> 41:4 114:9,20	261:14 271:13	<b>found</b> 257:19
248:21 249:14	132:12 168:14	118:3 186:19	<b>follow</b> 113:3 233:3	<b>foundational</b> 39:16
<b>feet</b> 88:10	209:5,9	187:6,9 192:13	<b>Following</b> 170:14	133:8
<b>fell</b> 239:10	<b>fine</b> 231:7 262:19	194:5,17 196:20	<b>follows</b> 205:19	<b>four</b> 13:22 19:12
<b>felt</b> 7:6 70:17	<b>finish</b> 36:8 41:20	221:1 239:2	<b>font</b> 271:4	40:18 45:15 56:22
<b>FEMA</b> 15:14,16	46:10	246:19 252:7	<b>foot</b> 83:22	74:22 86:9 106:7
16:2 17:13,22	<b>finite</b> 185:22	<b>flesh</b> 260:13	<b>force</b> 79:6	109:19,19 132:17
18:4,15 19:19	<b>fire</b> 185:18	<b>flexibility</b> 27:12,14	<b>forecast</b> 54:2	132:18 136:6,6,8
20:4 55:4,8 70:11	<b>firms</b> 88:20 109:18	37:3 72:12	134:10 139:20	152:6,15 161:20
70:21 71:10,12,17	<b>first</b> 6:10 20:15	<b>flight</b> 15:14 185:18	140:17 141:19	166:14 181:8
72:12 164:8	27:17 57:16 73:17	233:13	143:11	189:9 221:9,10
179:18 208:2	75:3 83:20 102:5	<b>flip</b> 192:7 225:12	<b>forecasting</b> 135:11	224:17,21 225:2
209:19 210:4	106:6 136:9	<b>floating</b> 195:11	135:13,17,18	226:21,22 227:2,9
213:5	139:15 145:5	196:6 223:4	<b>forecasts</b> 135:19	227:11 230:18,19
<b>FEMA's</b> 17:12	147:17 150:16	<b>flood</b> 16:7,9,14,15	<b>foreign</b> 92:2 173:12	232:12 253:14
<b>Ferdinand</b> 65:2	162:20 164:12	17:17 18:16	<b>ForeSee</b> 144:18	<b>fourth</b> 75:10 77:11
<b>Ferguson</b> 47:1	185:13 190:9	154:17 155:9	168:8	135:10 152:16
<b>ferret</b> 189:19	191:22 192:2,10	<b>floor</b> 10:8	<b>forget</b> 234:17	166:10 179:19
<b>fewer</b> 189:6	199:22 201:13	<b>Florida</b> 218:8	<b>forgot</b> 170:13	226:1
<b>fiction</b> 33:7 36:4	224:13 228:1	<b>flow</b> 211:4	<b>form</b> 81:6 271:7	<b>frame</b> 20:11 182:15
<b>fidelity</b> 9:8 188:8	245:3	<b>flowing</b> 192:5	<b>formally</b> 103:3	194:20 262:9,11
<b>field</b> 110:17 137:2	<b>firsthand</b> 85:6	<b>flux</b> 165:1	<b>format</b> 50:8 54:18	<b>framework</b> 4:19
146:19 222:22	<b>Fiscal</b> 23:7 24:6	<b>flying</b> 15:2 124:5	82:18 95:11 102:6	246:4 247:9
<b>FIELDS</b> 1:17	30:1,1	<b>focus</b> 27:6,10 28:22	102:18 103:4	<b>Francisco</b> 83:14
224:15,20 233:18	<b>Fish</b> 218:9	38:8 40:9 45:2	106:9 113:19,21	143:10 144:5
234:14 251:8	<b>fisheries</b> 39:3	50:15 95:19 96:16	159:6	258:8,9
252:1 261:13,19	111:14	158:5 189:18	<b>formats</b> 75:21	<b>Frank</b> 1:19 21:7
262:2,7 266:13	<b>fishery</b> 112:8	199:3 207:10,17	104:18 105:8	59:17 62:10 64:10
269:10	<b>fishing</b> 80:10	223:11 250:10	<b>formatted</b> 82:4	65:1 100:14
<b>fight</b> 243:1	<b>fit</b> 113:19 118:13	<b>focused</b> 80:5 84:18	<b>former</b> 29:3	138:18 152:8
<b>figure</b> 38:11 46:1	246:22 270:19	133:12,21 164:4	<b>formulate</b> 19:18	169:1 204:9 205:5
56:6 122:14	<b>five</b> 14:14 30:7	166:1 172:12	<b>forth</b> 19:7 94:10	231:20 232:8
204:19 212:9	40:18 41:8 47:20	184:6 186:17	136:13 158:14	235:1 258:14,19
<b>file</b> 107:1,5	55:11 82:5 90:18	<b>focuses</b> 9:16	176:22 206:8	260:10 267:7,10
<b>files</b> 145:8,15	90:19 108:19	<b>focusing</b> 9:19	211:5,9 234:6	268:10
<b>fill</b> 15:6 161:18	109:3 122:3	219:17	<b>fortunately</b> 179:6	<b>Frank's</b> 232:14
163:10 170:22	125:14 128:14	<b>folks</b> 7:9 13:7 19:15	<b>forward</b> 20:3,12	264:11
224:22 245:15	132:15 146:4	22:7 43:14 45:20	21:7 28:2,18 31:7	<b>frankly</b> 6:18 7:10
<b>filling</b> 238:19	150:2 161:18	46:8,13 62:5	42:8,10 45:3	79:12 84:4 112:3
<b>filter</b> 9:3 110:5	189:3,9 227:7	74:17,18 83:5	55:10,18 60:20	116:3
<b>final</b> 55:10 97:5	<b>five-year</b> 183:16	90:1 93:22 96:8	97:3 126:7,9	<b>free</b> 36:20 82:8,19
186:10		99:8,17 102:12	130:1 186:2	159:6

<b>Freeman</b> 265:11 267:2	179:4 204:14 211:10,11 212:20	<b>gentleman</b> 233:22 234:7	40:20 82:13 83:4 105:5 129:11	107:2,7 111:7,18 111:22 112:6,11
<b>freeze</b> 161:5,9 171:3	213:1,10,14 239:14,16	<b>GEOCON</b> 158:17 158:18	142:10 146:6 149:10 155:4,17	118:14,21 119:14 120:10 122:13,15
<b>frequency</b> 188:8	<b>funds</b> 152:2 210:8	<b>geodesist</b> 163:11	165:21 167:15	127:14 129:4
<b>frequently</b> 14:16	214:15 215:1	<b>geodesists</b> 154:11	183:14 198:11	130:17 137:8
<b>Friday</b> 255:2,3	216:6,16 226:4	156:15 161:7	202:14 212:2	138:9,16 141:2,16
<b>friends</b> 122:11	<b>funneled</b> 136:20	<b>geodesy</b> 150:9	213:3 236:7	142:15 144:20
<b>front</b> 4:9 5:3 51:12 74:6 83:9 119:16 185:22 264:12	<b>further</b> 131:18 150:15 154:9 171:19 191:6 195:8 237:6 241:8	158:5 161:19,20 164:5 171:1 172:9 172:14,18	<b>given</b> 121:17,19 145:22 147:10 253:9	146:1,4,7 147:14 148:2 149:15 157:17 158:1
<b>Ft</b> 85:6,14	<b>Furunos</b> 81:10	<b>geodetic</b> 2:3,10,15 29:9 150:18	<b>gives</b> 125:4 127:13 145:21	159:1,16 160:6 162:1,13 163:19
<b>fuel</b> 82:10	<b>future</b> 36:2 49:11	156:15 158:14 160:4 167:18	<b>giving</b> 220:8 253:11 256:4	168:9 169:16 172:15 173:3
<b>fuels</b> 95:5	76:19 92:22 108:6	<b>geographically</b> 260:15	<b>glad</b> 187:14	172:15 173:3
<b>Fugro</b> 178:4	109:10 156:3	<b>geoid</b> 152:14 154:5 154:10 155:16,19 155:22 165:10	<b>Glang</b> 2:8 3:12 40:13 46:22 49:4 65:7,11 70:22 72:9 73:20,21 88:4 101:9,14 112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	180:10,12 194:17 199:22 200:6 201:12 213:16 218:4 226:15 229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>full</b> 33:1 36:1 89:2 108:2 110:17 122:3 180:20 194:3 236:2 263:18 264:17	195:14 196:18 202:12 204:2 236:15	<b>geometric</b> 153:7	88:4 101:9,14 112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>full-year</b> 37:11	<b>FY</b> 23:12 24:7 30:3 30:6,7 114:7 153:12	<b>geopotential</b> 153:7	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>fully</b> 84:8 110:16 119:9 121:5 122:5 210:3 216:14 239:8 247:19 256:10	<hr/> <b>G</b> <hr/>	<b>geospatial</b> 34:2 42:20 45:8,9,11 165:4	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>function</b> 244:11	<b>game</b> 127:7	<b>Gerd</b> 2:8 3:12 134:8 136:5	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>functional</b> 150:13 207:3	<b>GAO</b> 41:3	<b>getting</b> 15:1 17:10 21:1 22:20 33:5 46:20 86:17,21 88:13,14 107:21 108:4 115:10 116:19 133:2 141:21 145:10 147:6 153:9 161:10 173:5 179:16 184:6 202:4 211:10 213:1 217:5 260:19 262:14	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>functions</b> 21:14	<b>gap</b> 52:3 238:19	213:1 217:5 260:19 262:14	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>fund</b> 37:22 53:7 202:18 211:5 217:11 224:7	<b>gaps</b> 15:6	<b>GIS</b> 80:16 97:8,10 97:13,18 158:19 167:17	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>fundamental</b> 66:12	<b>Garmins</b> 99:9	<b>GIS/geospatial</b> 172:12	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>funded</b> 31:12 32:7 65:3 111:1 121:5 218:2 247:19	<b>Gary</b> 1:18 15:10 73:21 174:22	<b>give</b> 8:2 9:21 18:19 19:20 33:7 37:2	112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
<b>funding</b> 23:14 28:12 30:17,22 32:16 35:11,21 36:1 38:12 40:19 42:22 47:5 61:16 63:7,15 65:6,21 68:1,3,21 115:2 122:3 127:3,11 129:14 130:9 151:6 178:18	<b>Gary's</b> 154:15		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>gate</b> 189:7		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>gather</b> 167:16 196:7		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>gauges</b> 140:6		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>geared</b> 97:12		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>geek</b> 171:7,11		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>general</b> 28:5 166:17 237:21 262:10		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>generally</b> 94:21 169:6		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>generate</b> 223:17		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>generation</b> 202:1 223:18		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7
	<b>generously</b> 34:18		112:20 113:1 114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,9,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2	229:20,21 233:17 237:18 242:10 244:8 246:15 249:10 253:10 254:5 257:21 258:11 260:18 261:7

65:21 66:4 69:11 69:14 70:4 71:1 75:7,8 80:22 81:2 81:18 86:20 91:1 91:12,18 94:17 95:1 99:17,19 101:19 103:10 106:16,19 109:15 111:18 119:2 122:15 124:1,16 129:5,6,10,12,13 129:16 130:1 135:12 137:17 138:6 140:15 141:6 142:19 145:11 147:12 154:12,19 155:19 162:6 163:22 166:18 173:16 174:12 178:11 179:7,16 181:7 183:17 185:18 186:15 187:3 189:8 190:16,17 191:2,16,20 192:14 193:12 195:22 196:12 200:7,12,14,17,19 200:20 201:4 202:7 204:1,2 209:20 215:21 218:11 221:13 222:17 223:16 224:4 227:4,7,8 232:22 233:19 238:17 245:7,18 248:9 253:2 257:1 258:8,9 260:10 267:6 271:9 <b>good</b> 4:5 5:10,14 7:2,11 9:22 10:3 12:10 13:4,18 22:22 25:11 33:17 38:15 39:9,12 42:7,11,17 43:1 44:2,5 46:4 47:2 49:11 57:4,5	60:15 61:5 72:17 73:20 87:22 94:11 95:11 98:12 101:20 105:14 107:13 112:4 114:7 115:6 116:14 118:1,5,10 126:18,18 128:12 131:1,15 136:10 136:11 138:15 147:6,19 149:2,8 188:13 189:5 190:6 200:5 201:1 205:7 211:13 212:4 240:18,20 241:5,20 243:2,3 258:7 259:4 263:21 265:12 268:1 <b>Google</b> 112:18,19 113:4,14,20,22 145:19 175:10 <b>gotten</b> 49:14 101:15 119:5 160:19 169:12 178:17 <b>government</b> 13:19 19:17 24:20 28:13 38:1 57:5 80:3 89:22 118:8 172:5 173:4 176:18 181:13 182:8 183:13,19 208:16 208:16 240:18,20 <b>government's</b> 175:4 <b>governments</b> 19:9 <b>Governor</b> 65:18 <b>GPS</b> 101:18 155:3 157:6 165:9 175:5 <b>grab</b> 73:9 83:1 107:2 <b>grabbing</b> 97:15 <b>grades</b> 16:19 <b>Grand</b> 1:12 <b>grant</b> 34:3 60:13 179:18,18 256:4	257:19 <b>grants</b> 31:21 32:11 179:16 <b>graphic</b> 146:2 <b>GRAV-D</b> 152:4 153:1,4,14 155:14 177:17 214:22 <b>GRAVD</b> 127:4 <b>gravity</b> 152:3 154:5 177:19 178:11 <b>great</b> 19:22 21:6 36:5 39:11 40:20 43:16 44:4,13,14 53:9,18 59:20,22 60:4,7,9 61:3 69:21 73:16 84:14 100:13,13,18 101:4,5 120:13 138:16,19,21,21 142:14 148:18 152:8,8 155:6 163:17 164:13 168:20 170:11 187:17 188:4 209:3,7 225:2 227:8 232:7 234:18 235:18 248:18 249:17 251:11 256:6 263:3 265:14 266:8 268:11 <b>greatest</b> 142:2 146:8 <b>green</b> 153:18 <b>grounding</b> 90:22 <b>group</b> 10:14 12:5 14:22 19:7,11 20:3 43:12 83:17 90:20 91:1 98:1 135:21 149:21 191:6 192:1 196:16 204:10 207:15 236:5,11 236:16,18 237:2,4 238:6 239:11 241:7 242:17 243:5 244:5 245:9	245:15 246:5,8 247:6 250:9,14 252:6,12 253:17 258:4 260:1 267:4 268:7 <b>groupies</b> 183:9 <b>groups</b> 77:7 132:22 136:2 168:6 227:11 231:13 235:3,20,22 236:4 237:20 238:4 239:8 244:17 245:5,18,20 246:1 247:10 249:12 250:22 251:16 253:18 258:14 259:4 260:4 266:6 268:4 <b>grow</b> 174:3 204:3 <b>growing</b> 11:8 <b>grown</b> 13:13 <b>grows</b> 125:20 <b>GS</b> 12:19 218:17 219:7 <b>Guard</b> 91:6 93:4 97:2 103:16 104:2 139:19 146:11 <b>Guardian</b> 91:1 <b>guess</b> 6:11 21:8 23:1 37:9 64:9 147:8 187:8 190:15 213:10 216:9 241:4 263:9 264:6 <b>guidance</b> 96:4 <b>guidelines</b> 17:15 <b>guides</b> 182:2 <b>guiding</b> 74:3 <b>Gulf</b> 116:7 139:5 <b>guy</b> 7:11 198:6 253:12 <b>guys</b> 54:4 57:12 59:8 70:12 78:22 79:4 83:6 100:5 105:21 136:21 146:16 181:3 195:22 211:14	213:9 214:7 222:13 <hr/> <b>H</b> <hr/> <b>habitat</b> 135:5 <b>half</b> 6:11 10:18 23:1 90:9 92:16 111:7 181:18 184:11,12 202:5 248:13 263:13 264:17 <b>Hampshire</b> 2:2 <b>hand</b> 10:3 102:12 251:16 <b>handle</b> 136:3 <b>handles</b> 243:16 <b>handouts</b> 5:1 <b>hands</b> 8:12 <b>hands-on</b> 55:1 <b>handy</b> 102:22 <b>HANSON</b> 1:16 9:10 10:1 120:22 121:11 124:15 125:3 126:10,13 147:14,17 148:12 148:15 199:15 201:10 203:18 268:21 <b>happen</b> 33:8 109:19 151:22 153:8 182:4 185:16 208:4 239:17 240:2 263:10 <b>happened</b> 112:22 117:20 157:8 169:21 176:18 192:21 264:6 <b>happening</b> 23:12 154:6 167:6 179:8 192:20 206:17 238:14 <b>happens</b> 56:11 <b>happy</b> 5:22 19:20 21:5 42:9 59:16 127:18 151:21 161:8 166:21 214:2 254:5
---	--	---	--	--

<b>harbor</b> 57:20 87:9 138:14	15:7 18:2 44:6 59:7 94:1 108:3	181:12	56:19 71:10,16	52:12 65:4 66:1
<b>harbors</b> 84:19	135:4 151:9	<b>HFR</b> 143:19	<b>home</b> 76:21 232:15	114:3 205:11
<b>hard</b> 6:5,6 8:11	154:15 188:5	<b>hide</b> 69:11	233:16 270:1	254:9,13,20 255:6
38:5 57:22 59:19	189:12 190:5,21	<b>high</b> 13:2 51:6,20	<b>honest</b> 67:15 118:6	255:10 261:15
69:9 75:20 77:15	206:15 208:1	71:16 72:3 108:7	120:14 201:6	<b>Hydrographer</b>
80:17 86:13,18	217:4 227:7	119:21 149:10	<b>hoops</b> 159:17 249:7	77:4 90:5
106:13 117:5	233:21 234:4	176:6 204:18	<b>hope</b> 174:20 182:11	<b>hydrographers</b>
172:5 178:8	238:21 240:1	208:7,10 210:7	183:5 185:2	77:12
185:22	261:2,5	212:22 225:15	<b>hopefully</b> 9:4 59:14	<b>hydrographic</b> 1:4
<b>hardened</b> 140:18	<b>hearing</b> 45:16 46:6	<b>higher</b> 33:14,15	66:8 91:15 108:16	1:12 29:5 34:22
140:19,21	74:16 88:5 272:4	34:15 57:2 148:12	153:14 154:22	39:15 41:5,6
<b>Harley</b> 96:13	<b>heavily</b> 10:18	148:13 193:9	156:1 160:17	46:21 47:20 48:3
<b>harmful</b> 117:1	<b>heavy</b> 80:15 180:13	205:8 211:19	162:9 166:22	56:1 77:5 110:14
135:16	<b>heel</b> 115:18	221:7 226:2	174:16 183:6,7	112:1 114:11
<b>harmony</b> 271:2	<b>height</b> 18:3 157:7	<b>highest</b> 27:15	186:14,16	133:14 181:17
<b>hashed</b> 19:5	167:2,5,8	<b>highlight</b> 150:17	<b>horizon</b> 68:1	241:1
<b>Hassler</b> 65:3	<b>heights</b> 18:19 155:4	156:9 164:2,12	<b>horizontal</b> 153:6	<b>hydrography</b> 76:4
117:16	<b>held</b> 31:5 32:17	<b>highlights</b> 23:4	<b>horrible</b> 12:1	77:20 112:8
<b>hate</b> 126:6 230:9	33:16 167:11	<b>highway</b> 16:18	<b>hot</b> 195:4,16	<b>hydrosurvey</b> 48:2
255:20 258:10	<b>hell</b> 243:10	<b>highways</b> 229:7	197:10	<b>hypoxia</b> 135:19
<b>Haven</b> 179:5	<b>hell-raiser</b> 59:12	<b>Hill</b> 23:17,19 25:11	<b>hotel</b> 73:13	
<b>Hawaii</b> 14:15 65:18	<b>help</b> 15:6 19:18	28:19 32:4 40:5	<b>hours</b> 90:9 169:6	<b>I</b>
258:6	20:4 58:13 64:11	42:6 43:12,16	169:13,22	<b>IC</b> 243:20
<b>hazard</b> 93:11	66:8 76:14 89:13	46:11,14 49:15,22	<b>house</b> 2:14 32:2,4	<b>Ice</b> 199:10
<b>hazardous</b> 26:7	91:2 97:2 98:2	52:5 62:15,18	32:20 33:2,16	<b>ICS</b> 70:9
<b>hazards</b> 76:16	100:1 122:16	63:2 67:11 68:6	36:10 42:12 43:19	<b>idea</b> 7:2 60:16 61:3
134:22	131:18 133:17	127:8 223:9	44:2 45:17 46:6	61:5,6 104:11
<b>He'll</b> 219:3	135:1 139:22	<b>hinged</b> 106:14	48:13,22 51:2	131:1 155:18
<b>head</b> 10:4 40:20	140:15,17 141:11	<b>hire</b> 161:6 173:20	68:7 104:8 267:2	212:4 219:13
109:6 184:14	142:21 153:5,13	<b>hiring</b> 161:5,9	<b>HRSP</b> 131:20	249:15 262:3
<b>headed</b> 225:13	157:6 165:9 166:3	171:3	<b>HSIA</b> 40:12 48:15	264:11 266:9
<b>heading</b> 239:22	166:5,20 178:10	<b>historical</b> 33:6	238:5 241:13	268:11
<b>headings</b> 229:15	186:15 192:9	142:14	242:3,8 246:9	<b>ideas</b> 54:15 59:4
<b>Headquarters</b> 39:5	204:20 207:13	<b>historically</b> 255:15	<b>HSRP</b> 1:16 2:8,17	189:5 192:4
162:21	222:14 250:10	<b>history</b> 101:1,3	2:20 3:16 4:7	<b>identified</b> 29:16
<b>heads</b> 136:21	268:6	<b>hit</b> 24:22 52:2 66:9	9:13,18 60:16	136:8 162:16
<b>heads-up</b> 71:11	<b>helped</b> 139:8 152:7	145:13 171:3	72:5 126:9,12	<b>identifies</b> 68:10
<b>hear</b> 7:11 22:15	174:8	<b>hits</b> 145:10	149:13 156:12	<b>identify</b> 49:18 66:5
57:20 74:4,6 85:6	<b>helpful</b> 140:7 145:1	<b>hitters</b> 50:3	185:20 231:15	136:1 139:22
86:15 93:20 100:9	165:12 168:18	<b>hitting</b> 147:22	245:2	222:18 258:13
183:6 194:17	212:15 250:11	186:13	<b>HUD</b> 212:1,16	259:22
195:20,22 197:11	256:1	<b>hold</b> 100:5 105:15	<b>huge</b> 81:19 160:17	<b>identifying</b> 140:1
203:20 210:13	<b>helping</b> 208:3	<b>holding</b> 59:13	176:9	268:3
223:18 261:4,11	238:20	<b>holidays</b> 38:11	<b>hurt</b> 148:7	<b>ill-ability</b> 192:18
264:19	<b>helps</b> 50:19 66:5	<b>holistic</b> 85:1	<b>hurts</b> 193:15	<b>Illinois</b> 60:6
<b>heard</b> 11:22 12:9	72:12 137:1 173:8	<b>Holly</b> 49:2,6,11,15	<b>hydro</b> 29:16 30:2	<b>image</b> 151:3
		50:9 52:16 54:11	30:13,20 34:18	<b>images</b> 151:2
				<b>imagine</b> 21:12

255:8	222:2 242:15	92:21 93:12 94:16	<b>instance</b> 89:6 97:16	<b>interesting</b> 38:14
<b>impact</b> 157:7	<b>includes</b> 25:21 26:1	95:16 97:11,15,17	243:17 247:16	54:12 63:6 68:4
<b>impediment</b> 202:10	26:3,16 29:13	98:8 107:19	<b>instances</b> 51:20	<b>interests</b> 195:9
<b>impediments</b> 210:3	130:7 150:10	118:18 119:7,12	66:9 219:17	<b>interfacing</b> 92:12
210:7,15	<b>including</b> 152:7	120:6 123:8 132:3	<b>institute</b> 34:14 98:5	<b>Interior</b> 21:12 22:2
<b>implement</b> 103:12	164:7 193:17	132:10 134:11	<b>institutes</b> 174:13	215:2 219:2 240:7
<b>implemented</b> 113:2	<b>incorporate</b> 175:18	142:1,22 144:14	<b>Institution</b> 176:16	<b>intermediate</b> 236:8
113:14	<b>incorporated</b> 103:3	145:4,17 149:11	<b>insurance</b> 15:15	<b>internal</b> 7:8 75:16
<b>implies</b> 59:21,21	169:7	152:12 155:8	17:17 18:17	133:11 150:14
<b>importance</b> 40:7	<b>incorrect</b> 199:7	158:12 159:6	<b>integrate</b> 44:17	246:20
154:12 191:20	<b>increase</b> 30:8 31:15	162:20 168:15,18	<b>integrated</b> 26:1	<b>internally</b> 74:13
195:18 205:10	31:16 63:14,17	169:19 186:16	44:13 204:11	136:2 196:22
<b>important</b> 13:9	66:4,17 153:10	214:4,10 264:2	<b>integrating</b> 48:21	222:5
35:6,20 48:17	228:22	<b>informational</b> 4:19	<b>integration</b> 42:3	<b>international</b> 77:5
73:18 101:16	<b>increased</b> 171:14	48:12	44:5	77:19 79:1 86:19
129:7 144:13	<b>increases</b> 31:14,20	<b>informed</b> 94:17	<b>intelligence</b> 50:11	90:10 167:20
158:6 162:17	<b>increasing</b> 69:17	<b>informing</b> 62:8,11	132:7 149:19	<b>internationally</b>
181:6 188:12	221:19	<b>infrastructure</b> 58:5	243:19	77:1
190:13 193:22	<b>Increasingly</b> 81:17	75:17 97:11	<b>intent</b> 7:21 8:1 70:6	<b>interpretative</b>
208:17 230:2	<b>increments</b> 183:16	121:13 136:5	<b>intention</b> 242:16	210:6
<b>impression</b> 61:2	<b>incumbent</b> 191:15	202:21 203:8	<b>intentions</b> 243:2,3	<b>interpreting</b>
<b>impressive</b> 47:4	230:7,7	204:10 221:3	<b>interact</b> 77:4 78:4	118:15
<b>improve</b> 17:15 70:7	<b>independent</b>	225:16 226:6,8,14	81:1 83:5,18 87:7	<b>intriguing</b> 264:11
84:18 85:3 86:4	204:22	229:4,21 231:18	87:20 90:1 93:3	<b>introduce</b> 148:3
108:12 145:4	<b>indicate</b> 5:21	232:9	98:13 138:10	156:1
150:6,20 153:13	245:10	<b>initial</b> 5:8 55:9	<b>interacting</b> 132:10	<b>introduced</b> 40:12
165:10 168:13,17	<b>individual</b> 27:1,2	124:7 227:20	132:21 137:4	43:19
<b>improvement</b>	51:14 85:3	233:6 246:4	142:6	<b>introducing</b> 43:17
39:15 56:2 155:6	<b>individuals</b> 19:12	<b>initiate</b> 235:22	<b>interactions</b> 136:18	43:22 69:3
246:14 247:2,4	162:15 163:10	<b>initiated</b> 195:13	139:12	<b>introduction</b>
<b>improvements</b> 89:4	164:1 171:16	<b>initiative</b> 18:5 58:3	<b>interagency</b> 22:6	147:18 229:13
89:12 103:7 159:4	172:6 174:10	152:4 204:4 219:2	42:15 57:4 90:11	<b>introductory</b> 229:9
239:10	175:20 218:18	251:21	209:17 210:14	<b>intuitive</b> 122:8
<b>improving</b> 75:16	<b>industry</b> 80:11	<b>initiatives</b> 230:15	226:3	<b>inundated</b> 21:3
93:12 119:11	86:16 87:4 95:18	247:11	<b>intercoastal</b> 22:10	<b>inundation</b> 17:1
194:8	96:7 99:5,6,20	<b>ink</b> 105:20	<b>interest</b> 43:17 69:2	<b>invest</b> 125:19
<b>in-house</b> 41:9	108:9 125:20	<b>innovate</b> 75:5	217:8 244:20	<b>investing</b> 14:21
<b>in-kind</b> 35:15	200:10,11,13	<b>innovating</b> 76:4	245:2 255:14	<b>investment</b> 58:5
<b>in-person</b> 20:15	201:4 209:1,4	<b>innovation</b> 125:20	<b>interested</b> 25:20	130:6 176:14
<b>inactivity</b> 23:17	220:2,6,20	239:16	29:1 38:17 43:15	179:20,21 194:1
<b>inappropriate</b> 6:13	<b>info</b> 94:20	<b>innovative</b> 99:22	45:21 46:8,20	200:13,20 202:21
<b>Incident</b> 91:8	<b>inform</b> 76:15	<b>input</b> 59:7 140:2	47:22 49:8 58:15	203:8 204:10
<b>include</b> 9:11 60:16	181:12	142:4,7 186:11	69:6 72:6 94:6	221:4 225:16
60:21 80:9 192:18	<b>information</b> 18:9	230:21 231:2	97:19 98:1 113:5	226:8 229:4
206:9 225:17	21:4 47:14 51:3	<b>insert</b> 131:2	147:8 160:2 173:9	<b>invited</b> 99:6,10
242:16	79:5,11 80:16	<b>inside</b> 99:2	174:10 247:17	169:11
<b>included</b> 60:1 68:7	81:5,13 84:9,12	<b>inspection</b> 105:5	255:7	<b>involve</b> 164:11

**involved** 21:9  
43:13 77:8 90:16  
91:5  
**involvement** 21:15  
68:5  
**involves** 86:21  
**IOCM** 13:6 14:9  
42:3,7,22 44:5,6  
44:15,20 46:1  
48:15 62:14 67:20  
68:21 69:13 168:4  
**IOCM's** 42:13  
**IOOS** 26:2 29:14  
29:18,19 30:18,22  
31:17 40:14 41:19  
66:16 67:3,4,6  
99:14 127:22  
143:18 235:6,7,10  
256:8 260:10  
261:2,6,11,14  
262:22 264:9  
**irony** 179:11  
**issue** 49:13 56:14  
58:8 68:18 71:9  
71:14 97:3 178:18  
193:5,9 202:21,22  
204:8 206:18,20  
211:21 212:4,22  
213:12 217:6  
218:3 234:6 239:3  
**issues** 55:18 57:19  
58:6 87:15 90:11  
90:12 118:1 120:8  
120:19 133:18  
189:13 191:5,9  
198:16 203:10  
204:5,12,18  
223:14 246:11  
**item** 8:8 9:1,5  
63:20 193:22  
221:16 227:13,14  
**items** 161:3 164:10  
188:12 192:1  
193:21 194:22  
205:21,22 206:18  
212:3 240:9  
**IWG** 10:13 11:1

**J**

**J** 1:19  
**Jack** 98:11  
**Jacksonville** 140:4  
143:5 147:19  
179:17  
**Jacob's** 79:15  
**JALBTCX** 11:22  
12:8 14:18  
**Jason** 209:2  
**JAY** 1:18  
**Jeff** 47:1  
**Jefferson** 117:11  
**JEFFRESS** 1:18  
15:11 16:3 17:3  
112:17,21 175:1  
176:7,15 192:11  
194:14 214:14  
227:19,22 228:4  
242:14 243:6  
**Jennifer** 10:11  
**Jersey** 179:3  
**Jim** 7:3  
**job** 13:4 18:6,7  
25:11 94:8 140:11  
142:8 147:6  
**jobs** 142:9 173:10  
216:1  
**John** 90:4  
**join** 183:8,9 247:15  
**joint** 218:16 219:1  
263:11  
**jot** 251:15  
**Joyce** 1:20 67:18  
114:1 190:1 238:8  
251:9 258:19  
266:2,13 269:10  
**Juliana** 2:3 3:14  
16:4 17:7,8 20:10  
66:13,15 169:2  
170:14 175:1  
**jump** 94:10  
**June** 40:14 108:18  
**jurisdiction** 45:16  
45:18  
**Justice** 32:21 33:12

**K**

**Kathy** 2:20 4:21  
8:9 180:18 183:20  
184:3 245:20  
261:1 271:16  
**kayakers** 102:10  
**keep** 23:4 37:12  
70:20 71:1,4 96:3  
129:1 175:11  
177:8 179:7  
186:16 188:10  
191:3 192:4  
198:22 215:20  
**keeping** 72:5 86:5  
184:5  
**keeps** 110:5 112:15  
170:15 177:12  
215:17  
**Kelly** 1:19 6:7,10  
7:17 185:10  
188:15 191:14  
194:16 228:2,6,14  
228:18 230:4  
233:1,12 247:19  
251:12 252:18,22  
253:6 255:13  
256:14,22 258:15  
266:20 271:3  
**Ken** 202:15 258:19  
**KENNETH** 1:17  
**key** 49:22 50:5  
110:1,3 120:9,11  
171:22 195:10  
219:13 220:4  
229:1  
**Keys** 218:8  
**kick** 11:9 37:15  
**kind** 14:4 24:22  
29:10 37:19 40:22  
41:22 45:21 48:9  
48:18 51:12 57:16  
58:20 61:14 62:11  
64:7,15,21 70:10  
79:2,16 80:1  
89:20 103:9 104:1  
104:10 113:21  
127:13 138:4  
139:9 140:22  
142:22 171:21  
196:11 217:13  
225:15 237:1  
248:9 250:15  
255:2 258:6,16  
261:16  
**kinds** 78:8 104:3  
145:11 222:3  
**Kirk** 60:5  
**kits** 95:8,9  
**know** 5:14 7:12,14  
7:18 15:8 16:7  
17:7 23:8,13  
25:22 32:18 33:9  
33:22 35:9 38:17  
39:8 53:22 54:7  
59:15 61:1 62:3  
64:18,22 65:20  
66:3 79:22 84:4  
85:5 87:2 91:4  
104:13 108:21  
113:4,13 118:16  
118:17,18 120:10  
129:5,13 130:17  
132:9 133:14  
134:15 142:17,19  
144:20,21 146:22  
147:21 156:7  
170:17 172:9  
181:3 182:19  
188:17 189:5  
191:11 192:20  
194:5,9 199:2  
203:22 209:8  
213:20 214:1,2  
215:6 218:5,12  
225:18 228:7,15  
233:12 239:20  
241:14,18 244:3  
246:21 249:7  
260:9,16 263:20  
268:8  
**knowing** 173:8  
**known** 164:10  
241:1  
**knows** 37:17 66:7

121:8  
**KUDRNA** 1:19  
21:8 59:18 63:1  
63:19 129:3  
138:21 169:2  
170:3,9 187:17  
202:13 204:21  
211:12 212:11  
221:12 222:10  
230:18 231:6,17  
232:16 235:4,19  
245:6 248:3,20  
259:11,16 263:4  
267:11 268:1,13  
271:9,19  
**Kyle** 2:19 251:14

**L**

**L** 3:1  
**LA** 108:8 257:6  
261:22  
**LA-Long** 258:11  
262:4  
**Laboratory** 2:12  
**Labs** 215:3  
**lack** 146:9 202:20  
**ladder** 79:15  
**lake** 101:7,9 124:9  
138:17,19  
**Lakes** 59:21,22  
60:4,6,9 100:13  
100:13,18 101:4,5  
138:16 142:15  
152:8,8 187:17  
263:3  
**land** 169:3 257:18  
**language** 34:10,19  
35:8,12 46:19  
**lapses** 40:3  
**large** 63:7 86:2  
109:19 123:1  
179:3  
**larger** 88:13  
207:11  
**largest** 91:17 257:6  
**lastly** 58:10  
**lasts** 90:8  
**late** 72:16 213:18

262:13	<b>learning</b> 48:1 98:17 98:18	204:18 206:5,13 207:4,20 208:7,10	157:5 162:20 166:9 240:8	149:16 159:9 166:15 168:22
<b>latency</b> 107:14	<b>leave</b> 23:4 39:7	209:22 210:7	262:14 265:2 267:3	173:3,8 187:13 188:13 202:15
<b>latest</b> 95:15 102:11	<b>leaving</b> 180:20	211:15,19,22	<b>lines</b> 27:1,2 29:8 86:10 106:8,13	207:5 210:19,22 212:20 214:2,6
<b>Lauderdale</b> 85:7 85:14	<b>led</b> 15:1 90:22	212:6,22 221:7 225:15 226:2	115:3 148:21	215:3 222:22 233:9 264:10
<b>Laughter</b> 185:15	<b>left</b> 10:20 26:19 90:4 222:13	<b>leveling</b> 169:17	<b>link</b> 231:9	<b>lives</b> 104:15 129:12 223:17
<b>Laughter</b> 10:6 72:18 100:15	230:22 242:19 253:22	<b>levels</b> 51:18 64:4 91:6 98:14	<b>linking</b> 94:9	<b>load</b> 51:22
105:22 121:2	<b>leg</b> 115:5,13 117:4	<b>leverage</b> 13:12 15:22 177:14	<b>list</b> 50:17 60:5 61:14 77:7 121:15	<b>loading</b> 51:7
125:2 130:21	<b>legacy</b> 208:13	<b>leveraged</b> 11:5	121:16 122:13,16 122:19 124:18	<b>local</b> 19:9,13 51:5 131:21 138:14,14
138:20 152:10	<b>legal</b> 71:21 212:7 213:22	<b>leverages</b> 11:15	125:12 137:14 141:4 175:2 188:7	139:21 140:17 143:3 155:5
171:9 177:4	<b>legalese</b> 210:6	<b>liaison</b> 248:11 259:12,22 269:16 269:18	188:11 190:20 199:20 201:17,19	<b>locals</b> 78:15
178:19 187:19	<b>legislation</b> 23:20 39:6,13 40:10	<b>license</b> 79:21	205:22 206:11 208:19 218:17	<b>location</b> 140:6,8,15 234:20,21 260:5
206:21 220:17	43:18 44:17 46:7 46:12 240:4,16 241:14,22	<b>licensed</b> 115:15,16 115:19 116:4,9	226:22 234:22 236:22 256:11	261:10 262:5 263:6,7
228:8 232:4	<b>legislative</b> 11:6 247:11 251:9,10	<b>LiDAR</b> 15:3 31:15 127:5 150:19 151:3 152:1	267:16	<b>locations</b> 141:8,9
233:14 247:21	251:21 266:11 269:6,9	<b>lies</b> 213:6	<b>listed</b> 21:9 137:10 138:7 164:11	<b>lock</b> 188:17
256:16 259:6	<b>legitimate</b> 129:16	<b>Lieutenant</b> 65:18	269:18	<b>LOCKHART</b> 1:20
267:9 268:17 271:5	<b>legs</b> 117:3 240:4	<b>life</b> 7:12 14:7 24:17 228:22 255:22	<b>listen</b> 223:21	<b>log</b> 145:8
<b>launch</b> 37:4 117:13	<b>leisure</b> 36:21	<b>lift</b> 161:5	<b>listeners</b> 265:6	<b>logical</b> 60:19 203:15
<b>launches</b> 116:2 196:21	<b>let's</b> 28:20 31:4 37:20 45:2 141:17	<b>light</b> 96:6 103:9 254:7	<b>listening</b> 5:14,17 6:4 74:16 93:9	<b>logistical</b> 254:18
<b>Laura</b> 133:6	218:20 227:14	<b>liked</b> 219:12	103:10 196:13 238:9 261:17	<b>logistics</b> 73:13 185:9
<b>Lautenbacher</b> 235:9	<b>letter</b> 72:4 181:14 214:8 221:13	<b>limit</b> 41:6 189:8	<b>lists</b> 201:14	<b>lone</b> 253:7
<b>law</b> 36:12	233:18,20 234:2 234:15 249:18 270:15	<b>limitations</b> 147:10	<b>litho</b> 93:19 102:7 104:20 105:11	<b>long</b> 9:8 77:7 83:12 84:1 91:13 108:8
<b>Lawson</b> 35:5 186:7 187:14 246:16	<b>letting</b> 234:17	<b>limited</b> 31:10 117:18 126:19 147:2 216:16 223:10	<b>lithographic</b> 91:16 105:19	119:18 130:2 137:14 148:2 157:9 162:1,13
253:6,9 259:8,9	<b>levees</b> 16:14,20	<b>line</b> 15:19 29:11 30:5,14,19,21 32:8 34:19 35:22 36:8 41:8,20 46:10 63:20 65:20 69:16 85:8 86:16 93:17 95:2 96:2 100:17,22 101:21 101:22,22 106:14 113:12 115:7 118:19 120:18	<b>litos</b> 108:22	163:19 177:8,12 188:7 201:18 213:16 216:8 226:22 238:11 242:4 254:20 255:21 256:4,15 256:20 257:6,13 257:16 260:18 261:15,22 263:8 266:15 272:6
<b>lawyers</b> 56:6	<b>level</b> 7:3,4,4 16:6 21:22 31:13 57:3 57:10 58:7 71:16 72:3 91:20 98:15 116:16 127:4 133:8,10 135:3 138:3,10,14 139:10 143:4 148:13,13 149:10 155:5 157:1 178:8 181:9 191:4		<b>little</b> 4:15 6:13 9:17 15:3,13 23:22 25:6 26:18,20 27:6,13 30:4,11 42:4 48:1,5,16,19 51:22 54:19,22 61:16,17 67:2 84:17 123:18 126:1 127:6 132:15 146:15	<b>long-term</b> 135:3
<b>layers</b> 113:11				
<b>lead</b> 12:3 76:13 129:18 187:21,22 230:20				
<b>leaders</b> 234:19				
<b>leadership</b> 10:21 14:9 165:2 181:15 181:20 205:8,10				
<b>leading</b> 36:5 76:19 78:2				
<b>leads</b> 98:9 137:2				
<b>leagues</b> 148:5				
<b>learn</b> 9:1 17:11 166:12 172:16 214:7				
<b>learned</b> 43:6 89:16 192:19				

194:1 242:13 248:6 <b>longer</b> 132:5 164:17 190:20 <b>look</b> 9:17 11:12 14:2,18 15:17 16:19 19:3 20:1 21:7 31:4 33:13 42:8 43:4 45:22 61:20 74:22 76:9 94:10 107:6,8 121:5 126:22 127:18 134:18 145:16,20 158:1 166:14 168:16 172:17 190:3 202:9 203:4 208:19 214:3 220:1,1,2,3 222:1 236:20,21 239:1 240:20 247:6,7 249:2 252:6 257:21 272:6 <b>looked</b> 31:22 76:7 127:1 147:22 179:11 234:7 242:19 <b>looking</b> 15:13 23:10 32:2 58:22 64:17 84:22 94:19 97:3 102:4 122:18 124:18 135:19 141:11 148:1 153:17 174:12 207:20 208:13,19 209:3 218:8 220:22 222:12 237:6 246:18 252:12 255:14 256:1 259:20 262:3 <b>looks</b> 26:17 123:17 130:13 151:3 162:5 219:4 238:12 240:18 <b>Los</b> 83:12 258:2 <b>lose</b> 112:13 186:18	<b>loss</b> 170:21 <b>lost</b> 116:3 <b>lot</b> 11:11,15 16:13 19:4 20:22 21:1 21:20 22:5 23:9 23:16 40:2 41:18 43:8,14,16 46:11 51:9 53:11,17,22 56:3 57:1,6,19 59:2,22 62:4,5,18 67:21 69:1,17 84:3,6 86:2 90:1 90:14 92:12,15 95:17 96:7 97:7 98:17 100:21 109:14 116:3 123:20 127:10 135:1 138:13 139:11 141:13,15 142:16 143:22,22 144:21 147:19,20 149:17 150:7 154:4 156:17 159:1 160:12 163:1 167:5 168:3 172:16 173:16 176:8 179:20 189:12 190:6 195:4 200:18 205:12 215:14 220:10 233:5 244:18 254:11,15 <b>lots</b> 22:7 89:17 216:1 <b>Louie</b> 54:11 <b>Louis</b> 52:18 <b>love</b> 54:17 61:15 183:18 262:1 <b>low</b> 52:1 102:9 142:14 188:16 <b>low-level</b> 171:21 <b>lower</b> 14:13 <b>lucrative</b> 116:8 <b>lump</b> 124:3 253:2 <b>lunch</b> 180:5,6,11 180:13 185:9 <b>lying</b> 125:7	<b>Lynne</b> 2:17 4:21 9:1 186:15 201:7 216:16 231:4 251:20 252:2 258:13 266:16 269:3,5,17 <hr/> <b>M</b> <hr/> <b>macro</b> 16:6 <b>Magenta</b> 93:17 96:2 <b>magic</b> 28:17 66:6 <b>magnitude</b> 155:18 156:7 <b>mail</b> 142:17 <b>main</b> 11:16 13:22 50:15 100:21 132:8,21 137:12 137:20 <b>maintain</b> 37:3 95:2 96:10 97:1 121:21 122:5 <b>maintenance</b> 17:20 106:10,11 111:1 114:16 115:6 225:17 <b>major</b> 106:18 115:12 130:9,15 150:5 202:22 219:18,18,20 222:18,19 224:21 <b>majority</b> 42:12 47:13 48:13,13 <b>making</b> 46:4 67:12 78:14 89:14 108:10 116:15 132:22 133:3 206:22 207:2 210:1 211:4,4 227:17 229:14 230:6 <b>manage</b> 52:20 92:10 114:10 135:15 <b>managed</b> 114:13 <b>management</b> 26:10 26:13,15 35:16 40:1 55:17 135:6	201:2 <b>manager</b> 2:19,21 55:16 133:7,20 134:17 135:10,14 139:21 <b>manager's</b> 142:8 <b>managers</b> 87:8 90:16 91:5 132:18 136:16 137:9,11 138:6,10 139:4 146:15 <b>managing</b> 18:3 166:5 <b>mandate</b> 11:6 87:4 <b>mandatory</b> 169:5 <b>manufacturers</b> 108:12 <b>map</b> 11:19 15:21 16:22 17:6,19 18:4 45:5 51:15 113:20 151:13 240:3 242:20 <b>mapped</b> 14:16 <b>mapping</b> 2:2 4:14 4:16,20 10:13,17 11:3,7,9,18,21 14:6 15:7 16:7,8,9 16:9 17:9,14 18:6 18:15 19:2 20:6 21:4,11 22:10,13 29:4,5 34:9,13 42:2 52:12 63:7 63:14,20 97:16 110:9 127:11,12 133:5,15 150:20 164:19 168:4 177:16 214:17 215:10,15 216:11 216:12,18 217:1 217:10 <b>MAPPS</b> 43:11 45:6 68:5 164:6 <b>maps</b> 15:15,17 16:10,17 17:17 18:17 21:13 155:9 <b>marathon</b> 43:3 <b>March</b> 37:21 38:1	262:16,17 <b>March-April</b> 262:10 <b>Margaret</b> 10:16 20:7 26:11 171:8 216:22 217:17 219:6 <b>Margaret's</b> 4:12 <b>marine</b> 26:8 31:16 56:18 58:12 59:6 76:10 90:3 96:13 98:5 111:12 114:13 127:11,12 182:13 220:6,20 243:13 <b>mariner</b> 85:16 120:1 <b>mariners</b> 83:9,19 84:3 101:17 103:19 108:12 <b>maritime</b> 2:20 52:8 53:21 79:1 87:10 90:17 91:7 131:21 132:13 133:20,21 134:3 135:21 140:17 143:20 253:1 257:6,15 <b>mark</b> 33:11 41:16 64:16 90:4 <b>market</b> 83:4 97:5 <b>marks</b> 159:13 <b>Marriott</b> 1:12 <b>Mary's</b> 100:12 <b>Maryland</b> 43:19 <b>massive</b> 240:2 <b>match</b> 132:17 235:13 <b>mate</b> 83:20 88:19 <b>materials</b> 8:19 <b>math</b> 109:3 173:1 <b>matrix</b> 14:4 132:16 <b>Matt</b> 181:1,1,13 182:17,20 183:2,6 260:7 <b>matter</b> 131:11 185:6 233:3 272:10
---	--	---	---	---

<b>matters</b> 92:6	27:14 53:7 57:14	188:15 190:2	269:5,7,8,10,11	186:20 202:17
<b>MATTHEW</b> 1:21	71:12 98:10	191:1,14 192:3,11	269:14,17,19	207:18 240:21
<b>mature</b> 174:3	116:15 120:18	192:16 194:4,14	270:4,7,11,17	249:1
<b>maximize</b> 180:7	126:5,7,20 137:22	194:16 198:21	271:3,9,19	<b>messages</b> 137:16
264:19	138:17 139:9,16	199:12 202:13	<b>members</b> 2:1 19:13	<b>messaging</b> 25:9
<b>McLaughlin</b> 133:6	141:15 142:9	204:21 205:4,21	49:18,22 50:5	188:5
<b>mean</b> 22:13 32:3	153:22 161:4	206:12,15 207:19	53:11,13 69:5	<b>met</b> 1:12 33:19
40:2,22 56:7,7	167:11 188:11	208:9,18 211:2,12	181:4 185:2	71:17 139:6
68:1 69:12,16	190:17,19 202:17	212:11,17 214:9	186:12 236:4,5	<b>meter</b> 85:10,15,21
70:13 114:4 172:8	204:16 231:14	214:14,18,20	247:15 250:22	118:20 120:1
172:9 175:16	234:21 236:9	216:3,19 217:3	253:15 262:15	<b>meters</b> 85:19 88:10
176:12 193:2	245:16 253:11,21	219:10 220:14,16	266:4	<b>metric</b> 128:15
211:7 212:20	254:3,9,13 260:4	220:18,21 221:12	<b>membership</b> 14:2	176:16
214:21 215:10	260:12 261:2,6,10	222:7,10 223:1,8	265:20 270:10,12	<b>metrics</b> 17:16
216:5 222:8,10	261:11,15 262:22	224:15,18,20	<b>memo</b> 237:18	58:16 154:1
226:21 241:10	263:14,18 264:16	225:5,9,14 226:7	<b>memorandum</b>	<b>Mexico</b> 139:5
242:7 243:13	264:21 272:7	226:9,13,16,18,20	206:13	<b>MICHAEL</b> 2:9
244:11 245:7	<b>meetings</b> 7:19 87:9	227:2,3,9,19,22	<b>memory</b> 79:22	<b>microphone</b> 143:16
247:14 254:4	90:13 93:2 138:15	228:2,4,6,14,18	<b>mention</b> 15:12 35:7	183:10
<b>meaningful</b> 132:3,9	143:22 165:1	229:16 230:4,18	42:6 45:5 60:9	<b>mid</b> 111:4
132:12	184:7 248:7	231:6,17,21 232:2	66:15 106:5	<b>mid-level</b> 204:13
<b>means</b> 36:16 39:18	<b>meets</b> 56:21 86:3	232:6,8,13,16,18	152:14,22 190:11	<b>middle</b> 6:17 38:10
39:19 51:20 66:3	108:3 130:13	233:1,12,18	200:9	57:15
203:21 227:16	<b>member</b> 5:19 6:7	234:12,14 235:4	<b>mentioned</b> 10:9,16	<b>middle-of-the-ro...</b>
<b>meant</b> 33:5 170:12	6:10 7:17 15:11	235:19 238:3	20:7 35:2 39:13	204:19
<b>measure</b> 58:20	16:3,4 17:3,8	241:4,10 242:14	46:18 48:14,20	<b>Mike</b> 4:14,17 5:5
144:14	20:10,14 21:8	243:4,6,7,15,22	49:1 55:20 56:12	6:8 10:8 21:8
<b>measurements</b>	50:18 51:1 59:18	244:7 245:6,17	62:10 63:2 77:11	55:12 175:2 177:5
141:17 144:6	63:1,19 66:14,19	246:7,12 247:1,3	87:5,16 88:6 93:8	216:7,20 225:12
157:5 165:9	67:19 70:1 71:3	247:14,19 248:3	99:19 100:7 102:6	<b>miles</b> 88:11 111:8
<b>meat</b> 19:21 204:13	73:4,14 101:7,13	248:20 249:6	104:19 106:7	111:10 124:12
233:9	112:17,21 114:2	250:18 251:3,6,8	107:12 108:18	150:19
<b>mechanism</b> 9:3	118:4,12 120:12	251:10,12,20	134:8 135:4	<b>milestones</b> 180:17
182:3 213:4	121:10 127:21	252:1,4,9,11,13	144:12 149:21	<b>military</b> 80:3 89:22
244:17	129:3 130:19	252:15,18,20,22	152:9 164:4 168:7	91:2,11,17 118:7
<b>media</b> 142:16,17	131:15 138:21	253:4,6,14 254:4	238:22	<b>MILLER</b> 1:20
<b>MEDLEY</b> 2:16	139:1 147:16	254:17 255:1,5,8	<b>mentioning</b> 72:4	67:19 114:2
88:3 262:21 264:1	148:8,14 149:4,8	255:11,13 256:14	<b>mentions</b> 55:4	176:21 190:2
264:5	157:16,19 168:21	256:19,22 258:15	<b>merger</b> 26:14	192:16 198:21
<b>meet</b> 20:17 52:18	169:2,10 170:3,7	259:7,11,16 260:9	<b>mergering</b> 67:21	199:12 205:21
57:16 78:15 84:8	170:9,10,18 172:1	261:13,19 262:2,7	<b>MERSFELDER-...</b>	206:15 211:2
87:4 103:18 105:3	172:7 173:11,15	262:9 263:4 264:4	2:17 201:8 213:2	212:17 214:9
124:19 167:7	175:1,13 176:7,10	264:20 265:8,14	231:10 247:22	220:14 225:9
245:7 256:7	176:15,21 177:3	266:3,13,14,16,18	258:22 265:17,21	226:16,20 229:16
263:14,15	177:15 178:16	266:20 267:5,8,11	266:10,17 269:12	232:6,8 241:10
<b>meeting</b> 1:6 20:12	180:3 182:21	267:19 268:1,13	271:15	243:4,7,15,22
20:15 21:3 25:16	183:3 187:17,22	268:18,19 269:1,3	<b>message</b> 43:3 52:10	244:7 245:17

246:7 247:1,14 251:6,10,20 253:14 254:4 255:5,11 262:9 264:4 266:14 269:5,11,14 270:4 270:7,11,17 <b>million</b> 27:21 30:5 30:12,14,19 31:15 31:16 32:6,9 34:2 34:6,6,7 35:14 64:16 68:8,12,15 108:20 109:1,3,4 109:14 111:8 112:2 125:17 128:2,14 153:4 <b>millions</b> 176:13 <b>mind</b> 191:4 198:22 217:7 226:22 <b>mine</b> 225:20 267:6 <b>minimize</b> 131:18 <b>Minnesota</b> 263:2 <b>Minority</b> 47:17 <b>minute</b> 35:2 152:15 <b>minutes</b> 4:8 5:6,7 39:8 72:16,16 131:6,9 160:21 180:6,14 227:16 230:22 252:3 <b>mirror</b> 220:22 <b>mission</b> 9:18 12:17 18:15 55:5,8 56:5 56:8,13,15 70:5 70:19 71:22 72:11 112:11 148:10 182:12 196:14 206:16 208:3 222:16 247:12 252:9,16,21 253:5 267:21 <b>missions</b> 44:8 66:12 217:12 <b>misspoke</b> 61:3 <b>MOA</b> 88:1 <b>Mobile</b> 59:1 144:7 147:1 167:12 <b>mod</b> 167:8	<b>model</b> 123:16 141:19,21 143:11 154:14 155:4,16 155:22 178:21 206:2 <b>modeling</b> 11:12 34:3 97:20 123:13 165:10 <b>modeling-airborne</b> 154:5 <b>models</b> 13:18 123:10 134:7,10 152:14 154:9 206:10 239:14 <b>modern</b> 97:12 104:11 165:5 220:6,20 <b>modernization</b> 18:3,5 167:3,5 186:19 187:6,10 <b>modernize</b> 150:6 <b>modernized</b> 18:20 <b>modifications</b> 117:17 <b>moment</b> 95:12 169:20 183:6 <b>moments</b> 62:10 <b>momentum</b> 41:18 <b>Monday</b> 255:2 263:10 <b>money</b> 29:14,15,19 36:20 40:22 65:4 66:10 69:10,12 109:14 116:19 122:12,14 123:1 123:21 124:14,20 127:15 129:6,10 140:20 141:16 197:13,15 198:12 201:20 202:7 211:4 212:6,19,21 213:3 215:14 217:6 225:20 227:2 243:19,20 243:21 <b>moneys</b> 14:11 <b>monopoly</b> 40:22	<b>month</b> 55:11 204:17 <b>monthly</b> 90:7,8,13 145:8 167:7 <b>months</b> 38:6 56:22 98:16 201:17 213:17 245:8 <b>Monument</b> 156:21 157:18 <b>morning</b> 4:5 15:9 22:22 73:21 131:15 149:9,9 <b>Moses</b> 106:2 <b>motel</b> 186:18 <b>motivate</b> 196:1 <b>motivated</b> 42:1 <b>move</b> 26:19 28:20 45:10,12 70:2 94:17 150:15 163:21 186:2 192:6 222:21 232:19 237:13 240:5 242:3 <b>moved</b> 41:16 135:14 240:7 <b>movement</b> 238:18 <b>moving</b> 16:7,8 45:2 55:10,18 158:2 163:3 <b>MTS</b> 138:7 <b>multi</b> 217:21 <b>multi-use</b> 217:15 <b>multiple</b> 75:21 159:11,12 <b>Murkowski</b> 34:17 46:17 <b>Murkowski's</b> 35:3 <hr/> <b>N</b> <hr/> <b>N</b> 3:1,1 <b>NAD</b> 158:21 <b>nail</b> 141:17 <b>naive</b> 6:13 <b>name</b> 29:17 65:22 134:21 245:14 <b>names</b> 246:13 251:1 <b>narrow</b> 226:16	<b>nation</b> 132:3 146:10 179:10 204:3 223:14 <b>nation's</b> 182:5,7 <b>national</b> 1:3 2:3,10 2:11,13,15 4:14 10:16 11:2,3 20:6 24:6 25:17 26:4 28:4 43:9 52:17 58:6,11 67:5 72:13 75:13 77:3 150:4,17 154:19 156:15,19 159:18 164:14,20 166:6 167:10 181:16 182:13 195:8,17 198:15,16 204:3 216:11,12,17 217:1 218:14 228:21 <b>nationals</b> 173:12 <b>nations</b> 90:19 <b>Natural</b> 42:12 45:17 48:13,22 58:3 <b>Nature</b> 43:10 <b>nautical</b> 82:8 85:13 85:13 87:7 105:11 111:8,9 253:1 <b>nav</b> 29:2,11 32:15 98:21 <b>Naval</b> 215:2 224:7 256:21 <b>NAVD</b> 154:18 <b>navigate</b> 75:10 <b>navigation</b> 2:18,19 3:11 12:19 25:20 25:22 46:15 55:16 67:16 73:19 75:7 76:18,19 78:10 79:2,11 81:4 82:10,22 83:1 87:8,13 88:8,11 91:3,5 93:11 94:12 95:16 98:7 98:7,21 102:13 104:4 111:15	123:11 134:15 137:9,11 139:4,21 146:14 182:12 <b>navigationally</b> 111:11 <b>Navigations</b> 153:10 <b>NAVOCEANO</b> 243:16 <b>Navy</b> 12:5,19 90:6 90:9 177:22 243:13 <b>NCCOS</b> 26:5 32:1 <b>near</b> 92:22 129:1 <b>necessarily</b> 66:3 76:13 89:18 156:11 172:15 174:2 210:17 <b>necessary</b> 196:7,9 197:17 224:4 <b>neck</b> 177:6 <b>need</b> 7:1 11:8 13:2 14:11,20 18:12 37:3 56:13 70:2 70:19 73:2 75:4 78:8 80:7 81:18 84:12 85:5 88:15 102:12,14 119:15 120:2 124:21 128:13 133:17 136:10,11,12 141:18,22 146:9 147:4 170:22 172:4 177:1,1,11 179:21 180:16 184:15 188:22 189:12 191:9 195:3,5,11 196:18 198:20 199:3 200:3,9,14 201:4 205:2 207:12,13 211:18,20 220:5 224:6,7 226:10,16 229:15 234:9 237:18,22 241:7 246:3 249:2,3 250:21 252:16,18 253:1 258:13,21
---	--	---	--	--

259:15 264:18 <b>needed</b> 7:14 70:13 134:3 140:1,2 161:22 201:20 237:7 <b>needing</b> 117:9 <b>needs</b> 41:9 76:15 80:18 133:1,13 136:4 137:22 142:10 167:8 196:22 199:22 203:20 205:15 234:6,14 246:5 <b>neither</b> 258:5 <b>network</b> 127:4 133:11 138:12 166:2,6 176:1 <b>Nevada</b> 162:11 <b>never</b> 128:15 156:22 202:3,6 <b>new</b> 2:2 7:20 16:22 17:6 18:16 25:15 29:17 30:12 34:9 34:12 37:15,18 45:10,12 53:10,17 68:15 69:10,13 70:3 77:9 78:13 87:1 90:3 93:4 96:10 100:8,10,12 101:22 102:6 103:4 106:11,21 107:16,17,18 108:1,19 109:11 111:3 116:10 119:6,7,21 125:16 134:17 139:13,14 139:15 143:9,10 143:14,20 148:20 150:8,8 151:5 153:6 154:14,19 155:19,20,22 158:11,16 164:1 166:11,18 169:17 169:17 176:16 179:2,5 194:2 197:5 198:5 203:19 206:1,10	207:1 220:2 225:9 235:9 239:2 245:10 246:5,19 247:6,15 248:21 249:4 252:7 253:17 254:12 255:16,18 262:14 264:2 <b>newbie</b> 48:19 <b>newly</b> 156:3 <b>Newsome</b> 7:3 <b>NGA</b> 86:17,19 90:9 90:17,20 91:20 92:1,8,11 177:22 242:15,16 243:5 243:11,15,18 <b>NGA's</b> 92:3 <b>NGS</b> 17:22 99:15 123:2 133:14 134:1 144:20 149:20 150:15 152:4 153:13 159:18 161:15 162:16 164:1,11 165:1,18,21 168:7 174:10,21 215:10 <b>NGVD</b> 154:18 <b>nice</b> 32:5 40:4 143:1 210:19 <b>Nicki</b> 12:9 44:7 <b>night</b> 5:13 59:14,14 110:5 112:16 170:16 173:8 186:18 <b>nightmare</b> 178:15 179:22 <b>nine</b> 63:8 64:2 149:15 174:6 213:17 260:8 <b>nirvana</b> 120:3 <b>no-observation</b> 176:3 <b>NOAA</b> 1:3 2:10,11 2:12,14,15,16,18 2:19 3:11 9:18 10:20 11:17 12:3 14:9 15:1 20:3	22:7 29:13 34:11 34:20 36:20 38:16 38:20 39:2 42:16 45:18 47:14 48:18 50:14 56:2 58:13 59:20 60:21 62:5 67:11 68:15 69:18 70:8 72:11 73:19 78:9 88:1 89:2,17 90:10 99:10,11 110:8 111:4 112:5 116:12,14 130:3,5 130:6,8 135:12 144:9,22 149:2 151:7 177:18 178:9 180:19 192:13 193:3,10 195:9 196:9 197:18,21 203:2,2 205:8,14 207:4 210:8 212:8,18,20 213:3,20 214:15 218:17 219:8 223:16 225:19 228:18 234:8 267:14 <b>NOAA's</b> 12:18 41:4 45:9 46:8 54:21 70:11 182:12 <b>NOAA/NOS</b> 3:8 22:21 <b>non</b> 82:22 98:20 134:14 200:19 209:8 <b>non-burdensome</b> 248:17 <b>non-navigation</b> 80:16 97:6 134:16 <b>Non-traditional</b> 194:12 <b>non-voting</b> 2:1 266:4 <b>normally</b> 32:3 <b>north</b> 253:13 <b>northeast</b> 255:16 <b>Northern</b> 139:5	<b>NOS</b> 24:18,21 25:9 25:13,15 26:22 27:3,7,21 28:6,21 29:3 30:6 31:19 32:8 33:13 38:19 46:14 49:21 53:20 63:15 67:17 71:1 71:15 105:6 115:2 121:5,7 127:2,7 127:13,14 145:9 145:13 149:19 210:10 230:8 <b>notable</b> 30:9 31:14 <b>note</b> 67:1 175:17 251:17 <b>notes</b> 220:22 <b>noteworthy</b> 32:19 181:19 <b>notice</b> 71:9 93:15 96:1 104:2 147:20 <b>noticeable</b> 60:3 <b>noticed</b> 175:2 <b>notices</b> 141:3 171:17 <b>notified</b> 47:21 <b>noting</b> 258:3 <b>notion</b> 104:7 107:15 <b>November</b> 37:18 38:10 <b>NSPS</b> 165:2,17 171:18 <b>NSRS</b> 150:6 166:9 <b>nuances</b> 116:15 <b>number</b> 28:13,17 30:4,13 31:9 46:13 62:13 63:22 64:12 125:11 128:2,3,21 132:13 138:9 143:8 144:4 144:15,21 156:22 159:20,22 161:15 161:16 163:1,12 167:7,20 168:11 175:5,14,15,20 177:21 178:5 193:22 209:4	216:6 227:13,14 260:6,7 <b>numbered</b> 152:5,6 <b>numbers</b> 23:9 26:20 28:22 35:13 63:5 64:19 122:4 124:17 126:2 128:4 160:18 <b>Nusome</b> 148:19 <b>NWLON</b> 144:3,7 <b>Nyberg</b> 90:4 <hr/> <b>O</b> <b>O</b> 3:1,1 <b>O&amp;M</b> 111:1 <b>OAR</b> 39:2 <b>objective</b> 6:15 95:14 242:13 <b>Obs</b> 29:2,11 32:15 <b>observation</b> 31:2 31:18 65:2 133:10 134:6 175:22 176:1,2 209:13 210:22 <b>observational</b> 175:4 <b>observations</b> 25:20 29:19 30:22 66:16 97:20 140:13 153:11 159:12 <b>observe</b> 8:3 <b>Observing</b> 26:2 49:9 <b>obtain</b> 56:4 <b>obtaining</b> 196:10 <b>obvious</b> 24:17 52:4 <b>obviously</b> 25:4 38:22 58:2 61:21 69:16 118:6 120:15 126:19 144:13 175:8 203:2 <b>occur</b> 129:13 <b>occurred</b> 18:11 63:8 <b>ocean</b> 2:2,11,13 10:13 11:6 24:6 25:17 26:2,5,9,12
---	--	--	--	--

28:4 34:9,12 42:2 49:8 59:20,21 111:17 112:10,19 <b>oceanic</b> 1:3 181:16 256:5 <b>oceanographic</b> 2:4 2:21 132:2 134:10 <b>Oceans</b> 49:7,12 <b>OCM</b> 26:15 <b>OCS</b> 2:16,18 <b>October</b> 52:16 57:15 99:5 263:1 <b>odd</b> 260:6 <b>offer</b> 85:22 89:11 105:8 110:2 209:12,15 248:3 265:5 <b>office</b> 3:11 26:5,12 26:15 49:14 50:20 73:12,16,19 77:5 114:13 139:20 146:20 191:10 <b>offices</b> 25:22 53:11 73:1 267:22 <b>Official</b> 2:9 74:1 <b>officials</b> 58:7 <b>offline</b> 233:20 234:20 237:13 <b>Oh</b> 64:13 110:1 124:7 173:15 252:15 258:20 <b>Ohio</b> 172:8 <b>oil</b> 26:6 116:7,20 <b>okay</b> 5:12 7:17 20:9 31:8 39:12 70:21 73:3,10,15 83:10 100:5 121:11 125:3 149:4,8 190:1 224:20 231:19 233:11 235:18 249:13,17 250:20 251:5 253:17 258:18 261:19 262:8 270:3 272:1 <b>old</b> 96:9 101:22 110:12	<b>OMAO</b> 39:4 193:7 <b>OMB</b> 31:12 67:11 125:10 129:4 130:13 219:3,4 <b>omega</b> 183:18 <b>omnibus</b> 38:3 <b>On-screen</b> 95:21 <b>once</b> 15:21 45:5 88:6 155:19 181:8 190:7,11 227:7,8 227:8 238:14 240:4 242:20 <b>once-every-two-y...</b> 92:19 <b>one-day</b> 99:9 <b>one-pager</b> 51:11 <b>ones</b> 21:10 49:4 53:16 138:7 145:13 185:13 244:14 <b>ongoing</b> 56:10 <b>online</b> 108:1 168:10 170:4,8 261:8 <b>open</b> 105:16 107:2 111:20 113:19 188:13 189:7 192:5 255:2 <b>opening</b> 228:15 <b>opens</b> 197:20 <b>operate</b> 79:10 81:21 115:20 134:9 <b>operated</b> 13:20 114:12 197:1 <b>operates</b> 112:5 <b>operating</b> 88:12 101:17 116:2 117:15,18 <b>operation</b> 193:18 <b>operational</b> 2:4,21 36:1 114:3,5 123:15 132:2 143:11 194:3 <b>operations</b> 24:12 39:5 114:14 <b>operators</b> 166:2	<b>opinion</b> 61:4 240:16 <b>opportunities</b> 52:22 144:11 163:21 167:15 173:2 174:13 196:8 197:5 206:1 206:2 217:21 260:11 <b>opportunity</b> 8:3,13 15:21 16:5 17:11 28:16 53:9,18 71:20 95:19 131:4 146:5 153:4 156:18 157:3 165:19 172:17 174:11 184:4 219:4 222:14 <b>opposed</b> 36:21 207:5 <b>opposition</b> 249:14 <b>option</b> 37:11,14 38:2,4 <b>options</b> 267:16 <b>OPUS</b> 159:9,10 160:8 175:5,9,16 175:21 176:11 <b>OPUS-Projects</b> 159:8,9 160:19 <b>orange</b> 24:11 <b>order</b> 41:10 48:6 52:8 114:8 117:15 123:4 131:5 132:9 136:12 150:20 160:10 195:7 207:17 215:18 <b>orders</b> 48:9 <b>Oregon</b> 10:20 51:1 <b>ORF</b> 24:12 <b>organization</b> 45:7 66:11 75:2 79:1 89:3 101:5 132:17 136:19 165:22 235:6 240:3 <b>organizational</b> 75:17 <b>organizations</b>	47:19 79:18 167:21 235:13 <b>organize</b> 231:15 <b>organized</b> 11:4 <b>oriented</b> 138:7 139:12 <b>original</b> 135:8 239:7 <b>Orleans</b> 78:14 255:18 <b>Osborn</b> 139:8 <b>ostrich</b> 240:10 <b>ought</b> 129:20 245:10 <b>outcome</b> 23:18 33:8 72:6 90:21 103:5 104:5 <b>outcomes</b> 260:1 <b>outdated</b> 95:13 <b>outfit</b> 96:14 <b>outlined</b> 155:13 <b>output</b> 5:1 <b>outreach</b> 74:7 95:18 131:21 136:13 141:13 142:16 146:8 147:12 150:12 162:14 164:3,10 167:15 174:9 245:1 250:14,19 251:4 267:20 <b>outside</b> 19:17 66:11 106:5 156:20 236:5 237:13,20 244:22 245:14,15 246:10 271:13 <b>outstanding</b> 182:8 <b>outyear</b> 153:16 <b>overall</b> 28:12 193:2 193:17 <b>overarching</b> 219:13 <b>overcoming</b> 221:7 <b>overhaul</b> 103:8 115:12 <b>overhead</b> 41:6 <b>overlap</b> 224:19	264:14 <b>overlapping</b> 217:8 <b>overlay</b> 108:7 <b>overlays</b> 102:19 <b>overruled</b> 188:20 <b>overview</b> 165:21 <b>overwhelming</b> 96:2 <b>owned</b> 13:19 114:12 197:1
<b>P</b>				
<b>P-R-O-C-E-E-D-...</b>				
4:1				
<b>p.m</b> 73:6,8 185:6,7 233:15 257:2 272:9				
<b>PAC</b> 24:13				
<b>Pacific</b> 258:10				
<b>package</b> 96:21				
<b>packages</b> 89:1				
<b>page</b> 3:3 51:13 225:10				
<b>pages</b> 270:16				
<b>paid</b> 116:16,19 268:22				
<b>painful</b> 119:19				
<b>painfully</b> 96:8 214:19				
<b>panel</b> 1:4,12 3:5 4:3 8:4 61:8 74:1 74:2 78:3 110:2,7 131:20 170:17 180:21 181:18,19 182:2 184:8,20 185:2 186:5,12 188:3 190:8 209:17 233:22 234:4,4 236:4 237:12 240:14 242:1,10 244:19 245:11 254:1 255:9 262:14				
<b>panel's</b> 184:4				
<b>paper</b> 79:13 81:6 85:12,13 87:6 91:12,16 95:5 96:11,11 97:1 102:14,18 103:19				

105:3,8 107:15 119:1 232:11 251:15 <b>paragraph</b> 227:20 228:1,15 250:8 268:6 <b>parallel</b> 86:10 106:7 251:19 <b>paraphrasing</b> 74:5 <b>park</b> 27:20 156:19 <b>Parrish</b> 10:19 <b>part</b> 6:18 16:12 17:17 20:6 30:12 34:4,13 36:19 62:2 67:16 77:2 142:7 149:3 150:22 152:3 159:18 160:4 164:16 175:6 180:13 181:5,9,11 200:8,17 201:1,5 201:13 204:12,15 237:12 <b>partial</b> 128:4 <b>PARTICIPANT</b> 53:3 180:9 <b>participants</b> 169:16 245:14 268:4 <b>participate</b> 92:18 186:6 <b>participates</b> 168:8 <b>particular</b> 46:15,17 46:22 63:20 77:10 82:5 89:20 91:7 98:13 100:3 109:10 140:8 206:19 213:11 250:9 <b>particularly</b> 9:12 <b>parties</b> 170:3 <b>partner</b> 13:9 167:10 174:15 177:20,21 <b>partnered</b> 142:15 <b>partnering</b> 206:8 206:10 208:2	235:5 <b>partners</b> 13:16,17 35:9 43:9,11 68:18 105:1,2 133:16 139:17 141:4 167:3,7 <b>partnership</b> 197:4 206:6 207:4 208:4 209:21,22 211:3 212:4 <b>partnerships</b> 150:12 206:3,22 207:1,2,21 208:15 208:19 209:17 210:4,14,21 211:3 211:8,14 212:16 213:1 216:4 220:3 220:3 221:7 224:3 224:5,8 226:2,3 256:2 <b>parts</b> 27:8 38:16 144:22 <b>party</b> 60:7 95:8 151:15 160:20 <b>pass</b> 36:10 234:9,12 251:17 <b>passed</b> 33:1,1 36:9 79:21 <b>path</b> 205:19 <b>pathogens</b> 135:20 <b>Paul</b> 2:11 3:9 22:16 66:14 69:20 71:2 72:20 121:4 153:1 242:19 244:2 <b>Paul's</b> 238:9 241:16 <b>pay</b> 62:18,22 69:20 177:22 <b>paying</b> 5:17 93:10 116:8 255:9 <b>PDF</b> 82:18 102:12 102:15,17 <b>pen</b> 69:4 192:8 <b>pending</b> 163:13 <b>people</b> 5:13,16 6:22 7:2 37:18 59:22 67:13 84:11 94:6	117:2 119:4 120:11 137:3,15 141:11 142:19 145:2 146:4,18,21 147:4 154:11 155:18 156:2 158:11 160:10,14 162:18 163:20 168:12 172:3 173:9 175:7 179:16 191:18 192:9 195:20 196:1,12 197:11 197:13 198:12,18 199:18 200:21 202:2 223:18,21 230:19,20 240:17 244:18 245:1 248:14 252:17 254:10 265:22 <b>percent</b> 24:20 30:8 30:15,21 41:8 64:1,7,8 121:8 123:17 128:12 153:21 154:2 179:12 186:5 202:5 243:20 <b>perennial</b> 33:21 <b>perfected</b> 220:8 <b>perform</b> 121:17 164:10 <b>performance</b> 58:20 <b>period</b> 102:7 115:8 115:12 <b>periods</b> 115:22 <b>Perkins</b> 1:14,16 3:6 3:17 4:5 6:2,9 7:15 8:1 9:22 10:7 15:5 16:1,6 17:5 20:5 21:6 22:16,19 39:10 59:17 64:3,9,22 65:9 67:18 69:21 71:5 72:20,22 73:10,15 130:16 130:22 131:13 149:6 168:20	170:12 178:14 180:1,4,12 183:9 183:13 185:4,8,21 187:7,12,20 188:4 190:1,14 191:22 192:7 193:20 194:12 201:7 207:8 208:15 209:14 213:5 216:9 219:9 220:13 222:12 223:5 224:10 225:1,11 226:6,12 226:21 227:6,10 227:21 228:10,17 229:12 231:4,8,19 232:1,7,10,21 233:11,17 234:9 234:16 235:18 237:16 238:2 239:21 241:19 242:18 243:12 244:4,15 245:19 245:22 246:3 247:8 249:9,21 250:3,21 251:5 253:8,21 256:9 258:12,18 259:3,9 259:21 260:16 261:9,18,20 262:4 262:12 263:3 266:8,22 269:22 270:6,9,13,22 271:6,21 <b>perseverance</b> 184:5 <b>person</b> 147:1 160:13 <b>personal</b> 77:2 210:10 <b>personally</b> 238:16 255:20 256:14 <b>personnel</b> 136:15 <b>perspective</b> 19:8,10 70:11 151:10 153:1 158:7 177:17 189:11 <b>perspectives</b> 147:9	<b>persuade</b> 174:8 <b>pertinent</b> 229:20 <b>Pete</b> 21:20 <b>Peter</b> 69:19 <b>petroleum</b> 257:8 <b>Ph.D</b> 2:13 <b>phone</b> 90:7 212:1 248:10 <b>photo</b> 105:18 <b>phrase</b> 132:4 <b>physical</b> 146:10 161:19 163:11 <b>physically</b> 203:16 <b>pick</b> 141:22 211:22 <b>picking</b> 219:13 <b>picture</b> 57:6,11,19 90:2 98:10 101:21 148:19 153:17 157:15 <b>pictures</b> 157:20 <b>pie</b> 38:20 61:14 <b>piece</b> 5:15,15 123:6 130:10 135:15 196:15 197:3,9 199:16 216:12 219:18,18,20 241:22 251:15 263:17 <b>pieces</b> 44:17 123:2 123:3 195:7 258:17 <b>pig</b> 124:1 <b>pilot</b> 79:18 88:18 88:19 89:3 94:7,9 94:11 103:18,20 104:6,9,15 108:12 <b>pilot's</b> 89:13 <b>pilots</b> 54:20,20 79:9 79:11,18 87:5,14 87:16,18,20,21 88:5 89:16 94:1 142:2 149:1 <b>pipeline</b> 163:16 <b>place</b> 8:10 57:4 122:22 125:12 130:10 161:10,13 179:22 190:22
--	---	---	---	---

195:12 211:8 216:15 219:6 240:13 257:5 <b>place-based</b> 50:12 <b>places</b> 14:15 51:10 120:9 144:20 <b>plain</b> 155:9 <b>plan</b> 4:16 11:2 13:22 14:1 20:17 24:9 122:2 124:16 125:4,5,8,15 128:1 130:6 136:9 149:21 150:2,5 186:19 187:10 194:2 200:7,8,15 216:8 230:2 <b>planes</b> 176:22 177:11 <b>planned</b> 47:8 <b>planning</b> 95:21 114:15 199:16 201:11 235:15 <b>plans</b> 17:12 74:21 165:3 185:18 <b>plate</b> 105:19 <b>platforms</b> 110:14 178:6 194:13 <b>play</b> 147:19 174:19 <b>players</b> 13:8 <b>playing</b> 122:7 <b>plays</b> 28:19 56:17 <b>please</b> 6:9 10:14 131:8 267:1 270:14 <b>plots</b> 51:17 <b>plugged</b> 5:5 <b>plugs</b> 97:9 <b>plus</b> 66:17 130:8 140:18 244:16 <b>pocket</b> 9:21 242:12 <b>POD</b> 102:20 <b>point</b> 9:9,22 27:16 28:2 30:16 31:2 33:21 67:2 68:6 83:13 96:20 126:17,19 127:22 127:22 132:8	154:13,19 158:4 162:5,12 186:1 190:14 197:16 211:13 215:13 216:17 230:1,6 268:1 <b>pointed</b> 55:13 61:13 217:17 <b>points</b> 99:1 132:21 141:22 142:3 189:21 229:15 <b>policy</b> 2:11 112:9 239:20 245:13 246:8,13 247:11 251:7,11,21 266:12 <b>political</b> 69:7 <b>poll</b> 181:7 <b>poor</b> 15:14 <b>populated</b> 119:9 <b>populating</b> 106:15 <b>port</b> 6:20 51:10 57:20 58:16 81:3 83:12 121:21 140:6,19 148:17 179:3,18 203:11 225:17 256:3 257:16 261:21,22 <b>portable</b> 82:18 88:18 <b>portfolio</b> 77:3 <b>ports</b> 35:8,11,14,19 36:2 51:4 52:19 52:21,22 53:7,12 84:19 86:17 87:3 87:17 88:9,15 89:6 111:13 115:22 134:5 139:13,14,15,18 143:2,4 147:18,21 178:18 179:1 202:18 206:2,7 211:2,7,8 220:15 220:19 221:5 225:17 239:10,11 239:12 242:9 247:6,18 251:13	252:12,13 253:3 <b>position</b> 162:11 163:11,12 <b>positioning</b> 25:21 29:2,11 32:16 153:11 175:8 <b>positions</b> 159:14 161:11,15,18 162:3 166:8 170:22 171:1 173:7 <b>positive</b> 6:1,2 214:21 <b>possibilities</b> 261:14 <b>possibility</b> 69:8 208:12 237:8 <b>possible</b> 66:21 160:7 239:15 <b>possibly</b> 67:21 198:3 <b>post</b> 148:21 <b>posted</b> 264:7 <b>poster</b> 129:8 <b>pot</b> 66:10 <b>potential</b> 195:3 196:18 240:2 <b>potentially</b> 191:17 <b>pots</b> 29:15 <b>poured</b> 123:21 <b>power</b> 93:3,5,6 <b>powerful</b> 52:10 104:11 204:6 <b>PowerPoint</b> 54:8 <b>PPBES</b> 123:19 <b>pre</b> 36:21 <b>pre-scripted</b> 55:5,7 55:12 70:5 <b>precise</b> 88:8 175:8 <b>predict</b> 140:12 <b>prediction</b> 141:10 <b>predictions</b> 51:19 134:6 143:14 <b>prefer</b> 258:8 <b>preferred</b> 95:3 <b>prepared</b> 16:2 22:17 201:13 204:3 241:20	<b>preparing</b> 199:20 268:5 <b>prescribed</b> 206:16 <b>prescribing</b> 208:11 <b>prescripted</b> 72:11 <b>prescriptive</b> 70:19 208:2 <b>presence</b> 146:10,13 <b>present</b> 1:15 2:1,7 54:17,20 186:6 <b>presentation</b> 9:16 9:19 10:12 15:13 49:12 54:6,12 74:10 134:8 154:16 183:12 238:10 <b>presentations</b> 4:8 8:12,16 9:7 84:15 180:16 <b>presented</b> 21:2 148:20 <b>presenters</b> 8:19 9:11 <b>presenting</b> 138:11 <b>preserving</b> 197:20 <b>President</b> 31:6,10 33:15 35:22 36:12 98:11 <b>President's</b> 31:5,20 32:3,10 33:20 124:22 127:2 153:3 <b>presiding</b> 1:14 <b>press</b> 47:18 108:21 <b>pressed</b> 77:15 <b>presuming</b> 250:13 <b>pretty</b> 10:3,18 13:4 14:22 20:16 24:18 32:17 47:4 69:1 99:15 100:20 104:10 117:4 233:3 245:18 248:21 254:5 256:3 259:18,19 268:10 <b>preview</b> 8:14 <b>previous</b> 141:4	236:22 267:15 <b>previously</b> 190:5 <b>prices</b> 105:9 <b>primarily</b> 6:15 21:18 22:7 134:4 164:19 171:22 <b>primary</b> 44:8 <b>prime</b> 130:12 <b>primed</b> 162:7 <b>principals</b> 204:16 <b>principles</b> 57:9 <b>print</b> 82:16 92:7 104:20,22 105:2 <b>printing</b> 92:7 104:20 105:19 <b>prior</b> 245:2 <b>priorities</b> 27:6,15 29:17 30:2,13 34:18 41:7 47:6 50:10,13,14 66:2 74:11 75:1 106:18 136:6,7,8 149:19 247:13 <b>prioritize</b> 192:6 <b>priority</b> 13:2 57:2 66:6 68:11 76:2 106:16 127:3 188:10 221:19 259:8 <b>Pritzker</b> 105:16 <b>private</b> 13:8,17 19:7,15,16 41:5 48:2 97:14 109:15 109:18 110:18 111:21 116:20 177:10,12 178:9 200:9,12 201:4 239:3 <b>probably</b> 10:2,3 36:12 62:9 66:2 76:1 86:4 110:6 110:21 120:20 129:21 130:5 137:9 157:14 164:3 173:2 194:7 205:1 219:3 266:4 <b>problem</b> 68:17
---	---	---	--	---

86:7 91:18 111:21 118:14 146:15 211:10 213:6,20 213:21 220:7 242:9 262:18 <b>problems</b> 117:8 <b>procedurally</b> 249:19 <b>procedures</b> 12:11 17:15 <b>process</b> 16:8 48:5 48:10 83:11 96:2 102:3 103:21 107:21 119:19 131:4 152:18 161:10 181:6,12 182:2 194:8 222:15 246:6 260:19 264:16 <b>processed</b> 153:20 <b>processes</b> 75:16 93:15 182:5 <b>processing</b> 217:20 251:19 <b>PROCTOR</b> 2:17 <b>procurement</b> 24:13 170:19 <b>procurements</b> 260:20 <b>produce</b> 86:10 107:17 120:5 190:16,17,18 191:16 <b>produced</b> 18:18 100:12 <b>producer</b> 105:6 <b>producing</b> 105:3 166:21 228:19 <b>product</b> 8:7 17:6 22:4 35:17 75:20 81:7 82:11,13,17 86:11 89:12 91:21 95:1,2,3,6 103:1,3 105:4,4 113:12 123:9 137:21 143:20 <b>production</b> 86:8,9	86:10 91:16 106:8 106:13,14 155:17 <b>productive</b> 110:13 117:10 191:13 <b>productivity</b> 110:19 117:1 193:15 <b>products</b> 2:4,21 53:20 54:21 77:22 78:7,10 80:18 98:2 99:12,18 100:8 102:18 103:13 104:4 106:21 108:6 125:10 134:2 143:9 158:3 168:13 220:19 249:2 257:8 <b>profession</b> 175:7 <b>professional</b> 83:8 83:18 164:15,20 169:3,12,21 197:17 255:10,12 <b>program</b> 2:20 18:3 20:4 21:19 29:1,2 29:14,20 30:18 32:1 34:3,22 35:14,20 37:3 39:1,3 40:8 42:10 42:22 68:12 75:13 77:7 109:12 114:11 132:18 133:7,20 134:5,7 134:13,14,17 135:10,14 136:16 138:6,10 142:8 153:5 163:6 166:4 203:8 216:5 217:2 218:15 239:9 246:13 247:2,4 <b>program's</b> 53:19 <b>programmer</b> 94:8 <b>programs</b> 11:19 32:16 39:17 40:9 40:18 46:8,15 47:5 49:9 52:14 62:12 74:7 132:17	135:9 138:8 172:10 <b>progress</b> 42:17 43:2 46:4 74:12 123:1 138:22 171:12 210:1 227:18 <b>progression</b> 200:6 <b>project</b> 2:14 137:2 139:11 201:14 205:11 207:5 <b>projects</b> 57:3 76:9 121:16 142:6 160:9 174:14 178:1 199:21 201:3 229:19 230:3,11,14 <b>promise</b> 213:8 <b>promotion</b> 228:21 <b>proper</b> 195:11 196:6,22 <b>properties</b> 21:13 <b>property</b> 256:5 <b>proposal</b> 261:12 <b>proposals</b> 224:1 <b>proposition</b> 75:11 112:4 <b>proprietary</b> 107:2 <b>protect</b> 196:7 <b>protecting</b> 197:20 <b>protection</b> 16:15 223:17 <b>proud</b> 148:3 <b>provide</b> 27:5,10,11 51:6 53:21 54:3 75:20 81:14 92:8 133:8 134:10,22 136:11 142:21 146:5 165:14 176:4 178:15 214:3 230:20 241:21 <b>provided</b> 24:8 28:15 35:21 48:11 74:3 <b>provides</b> 33:16 44:12 60:14	145:17 179:10 <b>providing</b> 44:9 50:21 62:21 132:6 132:9 203:3 207:22 <b>provisions</b> 41:15 <b>PSMAs</b> 209:19 <b>public</b> 1:6 6:14 7:16 92:13 93:16 110:8,18 126:20 160:9 239:4 264:15,20,21 265:4 <b>publication</b> 176:17 <b>publications</b> 96:11 <b>publicly</b> 154:3 264:22 <b>pull</b> 10:21 16:13 229:9 264:13 270:18 <b>pulled</b> 38:20 82:3 <b>pulling</b> 9:20 13:3 <b>purchasing</b> 15:2 <b>purest</b> 119:20 <b>purpose</b> 82:15 102:13 111:11 118:13 120:7 121:12 <b>purposes</b> 7:7 9:15 21:22 87:12 <b>pursue</b> 40:5 <b>push</b> 16:13 35:10 37:20 41:19 59:9 71:16 107:19 119:8 198:13 <b>pushed</b> 14:10,10 43:12 <b>pushing</b> 46:9 57:22 58:4 70:20 71:1,4 104:12 <b>put</b> 8:10,21 10:12 18:21 20:3 31:6 32:13,21 34:17,21 35:10 36:17 50:20 59:4 61:11,19,22 67:12 70:11 76:14 89:19 107:18	110:4 119:16 122:22 124:8 125:10,11 127:6 128:3,5 131:20 141:2 143:19 155:15 157:20 165:3 167:21 182:16 189:21 194:13 199:2 201:9,11,13 207:6 214:8 215:11 216:17 218:10 220:15,19 231:12 231:13 234:2 235:21 236:10 237:10 238:7 249:9 250:7 254:21 259:8 269:3 270:20 <b>puts</b> 29:20 40:18 144:17 262:16 <b>putting</b> 82:21 143:13 166:9 219:16 <hr/> <b>Q</b> <hr/> <b>qualify</b> 194:14 <b>quality</b> 15:14 17:16 35:16 75:19 85:4 <b>quarterly</b> 165:2 <b>question</b> 54:13 63:5 64:10 69:22 72:10 78:2 110:15 112:18 121:8,12 122:18,21 126:18 126:21 129:8 131:20 147:8 170:14 200:2 202:3 216:20 218:13 222:7 237:18 265:12,18 267:1 <b>questionable</b> 165:11 <b>questions</b> 6:12 20:1 23:5 39:7 59:16 59:19 60:11 74:4 109:21 121:4
--	--	---	---	---

145:3 147:13 169:1 174:22 221:14 265:16 <b>quick</b> 6:7 99:5 183:11 <b>quicker</b> 107:12 <b>quickly</b> 37:1 39:14 55:3 164:2 226:10 228:16 249:12 251:18 <b>quite</b> 78:12 85:17 87:2 100:11 109:2 129:3 135:17 157:3 172:19 175:9,19 184:8 <b>quotes</b> 54:20	114:6 118:11,15 120:20 121:7 122:20 124:13 180:22 182:22 183:5,11 184:3,12 184:18 185:1 187:1,11 199:10 209:12,16 212:5 248:18 249:20 250:1,6,16 251:14 259:14,18 260:14 261:1,5 262:17 264:9 265:1,10,15 265:19 268:2 <b>re-up</b> 182:19 <b>reach</b> 22:9 53:9 74:8 78:6 92:17 92:17 143:3 163:7 165:19 168:5 186:10 210:17 244:21 <b>reaching</b> 7:8 <b>read</b> 111:6 137:17 181:14 228:12 267:1 <b>readily</b> 106:4 113:19 213:3 <b>readvertise</b> 162:6 <b>ready</b> 122:13,17 130:17 141:21 184:6 199:21 201:12,14,14 241:21 242:9,12 <b>real</b> 62:20 84:2 107:13 129:1 134:4 166:2,5 223:8,11 249:3 <b>realistic</b> 61:17 <b>reality</b> 36:3,4 120:4 <b>realization</b> 11:10 108:2 <b>realize</b> 67:13 233:19 <b>realized</b> 229:17 239:8 <b>realizing</b> 123:10 163:19 254:2	<b>really</b> 7:12 10:15 11:9,22 12:10 13:7,18 14:10,10 14:12 18:12 22:12 23:8 30:10 32:3 33:9,13,17 35:12 40:21 41:22 42:7 42:17 44:22 46:9 46:20 47:2,13 49:8,11,19 50:20 51:5 52:10 54:7 54:11,16 55:3 57:11 58:14,19 59:4 60:6,15 61:3 61:5 62:6,11 64:18 67:3,10 71:20 77:20 79:11 80:21 82:2 84:6 84:11,22 85:3 86:2 87:6 88:11 88:15 94:5,11 96:17,22 97:17 98:12 102:17 103:9,10 104:5 105:9 106:4,6 107:3 113:9 117:18 118:1,9 120:6 125:9 126:18,18 127:6 128:7 129:7,16,19 131:19 132:8,18 132:20 133:7,11 134:22 135:11 137:22 138:3,6 139:8 145:9 146:9 147:4,5 157:22 161:12 162:11,17 172:8 175:22 185:21 192:12 193:9,14 199:20 203:5 204:8,13 205:14,17 238:17 244:6,15 246:17 248:6 251:17 254:11 262:19 263:4,10 270:15 <b>Rear</b> 133:6	<b>reason</b> 100:21 112:6 116:6 121:12 201:18 <b>reasonable</b> 221:15 <b>reasons</b> 192:21 <b>reassign</b> 163:9 <b>reauthorization</b> 40:12,14 41:12,19 60:12,17 236:12 238:5 239:22 246:8 <b>reauthorizations</b> 240:11 <b>reauthorizes</b> 40:17 <b>rebound</b> 30:10 <b>rebuild</b> 161:22 <b>recall</b> 25:16 29:3 65:17 91:15 254:14 <b>recap</b> 3:5 4:3,8 5:9 23:22 <b>recapitalizing</b> 102:2 <b>receive</b> 210:8 <b>received</b> 23:10 24:8 43:8 100:16 151:1 152:2 198:10 <b>recognize</b> 8:17 35:19,20 40:8 47:14 72:5 81:17 136:10 180:22 184:4 <b>recognized</b> 21:10 80:14 <b>recognizes</b> 183:17 <b>recognizing</b> 25:12 <b>recommend</b> 241:12 <b>recommendation</b> 60:20 70:4,6,17 189:19 205:7 206:7 207:20 208:7 211:20 212:13 221:14 223:2 238:22 242:7 <b>recommendations</b> 4:11 17:13 19:6	19:19 20:2 60:22 130:1 149:14 160:22 188:2,9 189:20 190:10,18 191:3,8 203:4 222:3 224:1 237:1 242:2 <b>record</b> 38:16 131:11 145:14 180:8 185:4,6 <b>recording</b> 268:15 <b>recovering</b> 25:5 <b>recovery</b> 55:15 <b>recreational</b> 80:8 92:14 93:2 95:15 100:3 102:10 <b>recruited</b> 161:11 <b>recruiting</b> 161:15 <b>recruitment</b> 163:13 171:16,20 <b>recruits</b> 245:4 <b>recurring</b> 51:9 <b>recuse</b> 260:8 <b>red</b> 86:3 101:20,21 152:6 <b>reduce</b> 27:9 129:17 <b>reduced</b> 107:14 <b>reduction</b> 16:16,17 16:20 <b>refer</b> 104:9 <b>reference</b> 79:13 95:22 150:4 159:19 166:7 <b>referencing</b> 187:8 <b>referred</b> 175:2 <b>refine</b> 189:15 <b>reflected</b> 115:2 <b>refresher</b> 150:1 <b>regard</b> 8:2 235:16 256:13 267:18 <b>regarding</b> 5:9 150:7 161:2 202:17,19 237:19 <b>regimented</b> 172:20 <b>regimes</b> 140:9 <b>region</b> 52:9 87:14 162:3,5,19 195:9
<b>R</b>				
<b>R</b> 1:16 <b>RA</b> 256:8 <b>Rachel</b> 2:16 88:2 <b>radar</b> 76:10 <b>railroad</b> 16:19 <b>rain</b> 148:22 <b>Rainier</b> 110:10 115:11 117:7 <b>ramp</b> 121:18 <b>ran</b> 69:4 <b>range</b> 63:9 89:2 98:14 99:11 100:2 107:18 117:18 <b>Ranking</b> 51:1 <b>rarely</b> 90:14 <b>Raster</b> 82:7,12 86:11 94:22 95:2 106:9 108:8 113:15,16,17 <b>rate</b> 15:15 17:17 18:17 36:22 153:14 <b>rating</b> 175:4 <b>ratio</b> 196:22 <b>Raven</b> 88:20 <b>RDML</b> 1:17,17 2:8 3:12 65:7,11 70:22 72:9 73:20 88:4 101:9,14 112:20 113:1				

255:16,17	<b>remember</b> 90:2 102:1 119:17 132:5 250:11	<b>reproduce</b> 77:16 91:22	<b>resisted</b> 146:6	<b>restoration</b> 26:6 135:6
<b>regional</b> 29:18,21 30:18,22 31:17 34:2 66:16 67:5 67:13 87:9 139:2 143:18 146:13 152:7 162:2,7 163:4,4	<b>remind</b> 242:14	<b>Republican</b> 60:7	<b>resolution</b> 36:9,16 37:2,8,12,21 108:7 119:22	<b>restructured</b> 132:16
<b>regions</b> 32:12 67:6 155:14 162:15	<b>remote</b> 2:9,14 165:20	<b>request</b> 8:10,18,21 9:13 35:22 55:7 202:12 219:8 249:10	<b>resolve</b> 55:21 86:20 212:3	<b>restructuring</b> 26:22 27:5 28:2
<b>Register</b> 93:15 96:1 104:2	<b>removal</b> 16:13,16	<b>requested</b> 5:6 32:17 131:1	<b>resolved</b> 97:4 120:8 179:7	<b>result</b> 100:9 150:21 151:6,22 204:2 228:20
<b>registered</b> 169:3	<b>renew</b> 215:20	<b>requests</b> 33:15 55:12	<b>resonate</b> 191:20	<b>results</b> 145:22 185:9
<b>regular</b> 165:1	<b>Renewing</b> 52:22	<b>require</b> 62:1	<b>resonated</b> 219:11	<b>resumed</b> 131:12 185:7
<b>regulation</b> 96:10	<b>reorg</b> 103:5	<b>required</b> 195:13	<b>resounding</b> 46:3	<b>resurvey</b> 14:11
<b>regulatory</b> 21:14	<b>reorganization</b> 45:8	<b>requirement</b> 8:11 8:22 85:18 119:7 121:8 128:13 130:13 136:19 194:19 271:20	<b>resource</b> 26:13 55:17 111:14	<b>resurveying</b> 14:13
<b>reimbursements</b> 116:17	<b>repair</b> 115:6	<b>requirements</b> 13:1 16:10 22:14 80:12 103:18 133:2 137:5,16 139:16 147:6 169:6 195:7 217:9,13 218:1 257:10	<b>resources</b> 11:16 13:3 42:12 45:17 47:16 48:13,22 70:8 72:13 176:22 215:22 239:1 246:19,21 247:7 252:7	<b>ret</b> 2:17
<b>reinforce</b> 205:9	<b>repairs</b> 117:10,13 118:2	<b>requires</b> 9:17	<b>respect</b> 126:20	<b>retire</b> 163:20
<b>Reinsurance</b> 97:21	<b>repeat</b> 248:1	<b>rescheming</b> 96:3	<b>respectful</b> 186:4	<b>retired</b> 105:21 110:20
<b>reiterate</b> 268:5	<b>replace</b> 192:13	<b>research</b> 12:19 21:22 24:12 29:6 32:1,13 39:2 76:9 122:10,12,13 152:20 154:6 174:14 214:6 215:3 223:15 234:5 256:5 257:20	<b>respond</b> 63:4 198:18 223:22	<b>retirement</b> 180:18
<b>relate</b> 203:9	<b>replaced</b> 115:9	<b>reschewing</b> 96:3	<b>response</b> 14:5 26:6 26:7 55:9,10,14 56:3,11,17 71:19 72:13 87:13 91:8 96:1 146:22 167:12 194:21 199:5 201:21 234:8 236:7 249:16 260:21 265:3,7 272:2	<b>retreats</b> 74:19
<b>related</b> 65:5,8,10 118:2 167:1 173:12	<b>replacement</b> 187:18 193:17 237:5,7	<b>research</b> 12:19 21:22 24:12 29:6 32:1,13 39:2 76:9 122:10,12,13 152:20 154:6 174:14 214:6 215:3 223:15 234:5 256:5 257:20	<b>responses</b> 26:7 102:17	<b>return</b> 176:13
<b>relationship</b> 12:4 12:16 49:20 63:12 87:22 89:11 92:9 93:7 98:12 211:16	<b>replacing</b> 130:3	<b>requires</b> 9:17	<b>responsibilities</b> 12:17	<b>returns</b> 62:17
<b>relationships</b> 12:11 90:15 203:1	<b>replay</b> 228:11	<b>reschewing</b> 96:3	<b>responsibility</b> 56:15 132:20 136:17	<b>revamped</b> 104:15
<b>relatively</b> 7:20 248:16 249:12	<b>reply</b> 218:21	<b>research</b> 12:19 21:22 24:12 29:6 32:1,13 39:2 76:9 122:10,12,13 152:20 154:6 174:14 214:6 215:3 223:15 234:5 256:5 257:20	<b>rest</b> 24:19 38:12 97:9 130:6,8 150:14 185:11 219:6 233:8 243:20	<b>review</b> 1:4,12 8:20 14:2 181:18 213:22 244:1 271:1
<b>relax</b> 10:4	<b>report</b> 6:3 20:18,19 34:10,19,20,21 46:19 58:19 60:14 61:10 63:10,12 64:11 74:2 126:9 126:12,14 176:4 190:19 235:14 236:8,15,21 244:13 249:18 259:1,2,5 260:3 267:14	<b>reserve</b> 49:16	<b>responsibilities</b> 12:17	<b>revising</b> 90:10
<b>relayed</b> 12:11	<b>reported</b> 43:22	<b>resident</b> 191:16	<b>responsibility</b> 56:15 132:20 136:17	<b>revisions</b> 63:21
<b>relearn</b> 119:4	<b>reporter</b> 228:12	<b>resilience</b> 31:21 32:11 50:12 57:21 57:21 58:12,16,18 58:21 123:12 134:12,19,21 197:10,15,15 204:4 219:16,20 221:2 225:7,21	<b>rest</b> 24:19 38:12 97:9 130:6,8 150:14 185:11 219:6 233:8 243:20	<b>revisit</b> 128:17
<b>release</b> 47:18 108:22	<b>reports</b> 20:20 62:3 62:13,14 93:11	<b>resilient</b> 191:16	<b>responsibilities</b> 12:17	<b>REX</b> 108:1,5 113:6
<b>released</b> 166:11	<b>repository</b> 44:9	<b>resilient</b> 191:16	<b>responsibility</b> 56:15 132:20 136:17	<b>Ric</b> 259:20
<b>relevance</b> 195:18 223:13	<b>represent</b> 24:11	<b>resilient</b> 191:16	<b>responsibilities</b> 12:17	<b>rich</b> 3:13 84:13 121:8 130:16 131:16 149:6 162:16 168:7 170:13 178:14
<b>relevant</b> 135:21 195:17 197:5	<b>representative</b> 56:20 60:4	<b>resilient</b> 191:16	<b>responsibility</b> 56:15 132:20 136:17	<b>RICHARD</b> 2:4
<b>relieved</b> 44:3	<b>representatives</b> 19:14	<b>resilient</b> 191:16	<b>responsibility</b> 56:15 132:20 136:17	<b>RICK</b> 2:12
<b>relocated</b> 140:5	<b>represented</b> 22:3	<b>resilient</b> 191:16	<b>responsibility</b> 56:15 132:20 136:17	<b>right</b> 10:7 19:16 22:16 26:17 45:14 54:13 61:12 64:5 64:9 73:20 76:2 78:9,9 85:17 90:2 100:7 101:10 103:22 109:2
<b>rely</b> 79:18 137:7				
<b>remarks</b> 4:12				

117:14 120:6,11 120:21 131:6 133:19 134:20 143:17 145:3 148:14 151:4 156:5 164:21 168:21 173:3 174:9,19 184:9 185:8 187:5,11 188:8 192:22 194:7 202:14 212:11 218:9 222:16,20 224:10 225:13 226:11,15 226:18 234:1 238:2 240:20 243:2 245:20 247:17,20 249:20 259:15 261:9 264:16 271:8 272:3	40:20 57:1,6 58:8 109:6 116:13 188:13 222:13,15 247:17 <b>rooms</b> 73:9 <b>Rose</b> 96:20 <b>roughly</b> 31:13 <b>round</b> 52:20 148:1 192:9 245:4 <b>route</b> 178:12 <b>routes</b> 111:13 <b>routine</b> 138:4 <b>RSD</b> 100:17 124:4 <b>rule</b> 94:21 <b>rulemaking</b> 97:3 103:21 <b>run</b> 12:15 39:14 46:16 55:3 73:8 95:9 151:18 176:14 210:15 228:10 <b>running</b> 56:8 261:16 262:18 <b>runs</b> 37:8 <b>Ruppersberger</b> 43:18 <b>Russ</b> 2:17 259:18 <b>Russell</b> 2:13 49:2,7 49:15 50:9 55:20	<b>sat</b> 33:2 83:9,15 <b>satellite</b> 36:19 37:2 39:1 76:7 99:16 130:9 <b>satellites</b> 130:3 <b>satisfaction</b> 92:20 168:9 <b>save</b> 129:12 <b>savvy</b> 96:12 <b>saw</b> 6:20,21 30:6 51:17 108:21 115:1 <b>saying</b> 7:18 64:14 70:14 118:16 132:6 189:4,8 198:11 205:5 213:6 216:22 221:1 223:6 246:15 261:13 <b>says</b> 32:4 34:11 118:19 134:19 146:4 198:11 <b>scaffolding</b> 157:4 <b>scaled</b> 106:12 <b>Schatz</b> 65:18,19 <b>schedule</b> 22:20 37:4 73:7 114:3 131:17,19 148:17 260:2 264:7 <b>scheduled</b> 92:21 117:16,20 235:8 <b>scheduling</b> 254:19 <b>school</b> 172:15 173:17 <b>schools</b> 256:6 <b>science</b> 26:3,5 32:21 33:12 51:2 58:11 112:7,8,9 114:19 173:1 219:7 236:20 252:19 256:2 267:13 <b>scientist</b> 161:19 163:12 171:11 <b>scientists</b> 253:2 <b>scope</b> 250:8 <b>Scott</b> 1:14,16 3:6	3:17 5:19 6:7 63:1 205:4 209:13 213:8 237:15 242:14 245:6 247:22 250:13 259:2 269:20 271:12 <b>Scott's</b> 67:2 <b>screen</b> 186:16 199:3 225:3 <b>screwed</b> 116:18 <b>scribe</b> 251:18 <b>se</b> 18:15 <b>sea</b> 60:13 88:14 111:16 112:7,11 114:6,8,22 115:4 135:3 187:3 193:14 194:1 199:13 <b>seal</b> 155:5 <b>search</b> 54:1 140:9 140:12,16 <b>searches</b> 168:14 <b>season</b> 110:17 <b>seated</b> 262:15 <b>seats</b> 244:18 245:4 <b>Seattle</b> 78:13 96:14 96:17 146:20 <b>second</b> 63:5 75:4 76:3 115:5 150:4 224:14 264:2 271:10 <b>secretary</b> 57:10,11 57:12 105:16 148:9 203:5,7,16 211:22,22 221:13 221:16,17 222:4,9 268:16 <b>sector</b> 13:8,17 19:8 19:15,16 41:5 48:2 89:22 92:15 97:6,14 109:15 111:22 116:20 177:10,12 178:9 239:3,4 <b>sectors</b> 74:15 83:3 83:4 132:13	<b>security</b> 53:1 179:18 182:14 195:9,17 198:16 223:14 228:21 <b>sediment</b> 12:18 <b>see</b> 6:15,16 7:1,2,21 8:3,6 22:19 25:2 26:20 27:18 28:3 28:18,20 32:16 34:5 38:20 42:10 44:4 49:10 50:3 53:16 56:11,17 64:13 68:15,15,21 79:17 93:21 98:6 98:8 99:20 101:20 107:10 125:14 126:1 151:22 152:8 156:3 160:18 168:12 175:19 176:15 188:22 189:17 190:15 199:18 204:2 207:19 217:17 235:10 236:22 244:12 248:21 255:17 260:11 263:7 <b>seeing</b> 69:9 74:17 88:5 255:14 <b>seen</b> 7:21 22:12 23:9 30:10 46:5 66:10 94:1 128:15 128:22 <b>sel</b> 2:12 <b>selected</b> 142:3 244:19 <b>selection</b> 162:9 <b>selections</b> 163:15 <b>seminar</b> 99:10 <b>Senate</b> 33:11,12 34:11 35:8,10 36:11 41:21 43:21 44:1 47:12,17 48:12 49:7 68:17 <b>Senator</b> 34:16 35:2 43:22 46:17 47:11 47:11 48:14 51:7
<b>rim</b> 88:14 <b>ring</b> 155:5 <b>risk</b> 8:17 16:8,9,12 16:14,15,16,20,22 17:6 <b>River</b> 51:4 100:12 <b>RN</b> 194:11 <b>RNCs</b> 82:7 <b>road</b> 37:15 59:9 78:11 <b>roadblocks</b> 210:16 <b>roadmap</b> 74:13 106:18 135:18 <b>robbing</b> 69:19 <b>robin</b> 192:9 <b>rodeo</b> 6:11 <b>role</b> 166:4 182:7 222:14 242:21 <b>roles</b> 181:20 <b>roll</b> 22:17 <b>rolled</b> 79:15 143:9 143:11 165:6 <b>rolling</b> 105:20 131:9 184:16 245:16 <b>room</b> 1:13 4:17	<b>rooms</b> 73:9 <b>Rose</b> 96:20 <b>roughly</b> 31:13 <b>round</b> 52:20 148:1 192:9 245:4 <b>route</b> 178:12 <b>routes</b> 111:13 <b>routine</b> 138:4 <b>RSD</b> 100:17 124:4 <b>rule</b> 94:21 <b>rulemaking</b> 97:3 103:21 <b>run</b> 12:15 39:14 46:16 55:3 73:8 95:9 151:18 176:14 210:15 228:10 <b>running</b> 56:8 261:16 262:18 <b>runs</b> 37:8 <b>Ruppersberger</b> 43:18 <b>Russ</b> 2:17 259:18 <b>Russell</b> 2:13 49:2,7 49:15 50:9 55:20	<hr/> <b>S</b> <hr/> <b>S</b> 3:1 <b>safe</b> 134:3 182:12 <b>safety</b> 85:21 87:9 87:10 138:14 228:21 <b>sail</b> 83:7 115:17 116:12 <b>Salty</b> 7:11 <b>salute</b> 105:18 <b>San</b> 78:12 83:14 143:10 144:4 258:8,9 <b>sanctuaries</b> 26:16 <b>SANDI</b> 178:3 <b>Sandy</b> 11:10 127:10 150:21 152:17		

60:5 65:19 69:3	113:16,18 129:9,9	<b>shape</b> 10:3	192:18,21 193:3,3	267:21
<b>send</b> 4:22 14:1	129:17 133:6	<b>share</b> 21:5 42:9	193:13,16,17	<b>sidebar</b> 271:22
126:11 171:16	134:15 136:11	66:19 97:17	194:2 195:16	<b>sight</b> 157:5
234:15 252:2	140:7 146:12	116:12 127:18	199:6,7,8,12	<b>signed</b> 36:11 88:1
253:16 271:17	156:19 179:10	169:20 171:17	200:3 219:19	93:4 139:18 266:7
<b>sending</b> 160:3	180:19 181:19	216:5,14,14	<b>shoot</b> 7:13	<b>significant</b> 62:1
<b>senior</b> 98:15	183:14,14,19	265:13 268:12	<b>shore</b> 100:22	64:1 76:1 77:2
<b>sense</b> 46:3 67:21	192:14 206:13	<b>shared</b> 41:14 43:4	101:22,22	100:20 103:7
85:1 158:6 210:10	218:9 228:19	197:4	<b>shoreline</b> 21:13	111:11
214:11	<b>serviced</b> 133:4	<b>sharing</b> 12:7 217:6	22:4,6 29:5 52:12	<b>significantly</b> 82:17
<b>sensing</b> 2:9,15	<b>services</b> 1:4,12 2:5	<b>sheet</b> 100:6 232:11	124:4 128:14	<b>signing</b> 238:6
165:20	2:18,20,21 3:11	<b>shelf</b> 242:4	133:15 151:4	<b>Silver</b> 146:19
<b>sensor</b> 31:16 67:9	26:1,10,11 29:9	<b>Shepp</b> 98:10	168:3 177:17	<b>similar</b> 47:10 66:9
<b>sensors</b> 13:19	35:16 39:15 53:20	<b>shift</b> 102:1	<b>short</b> 38:11 50:17	87:12 89:7 211:6
51:16 140:2	54:22 56:1 67:16	<b>shifts</b> 100:21	73:2 100:17	235:12
176:22	73:19 82:21 97:16	<b>SHINGLEDEC...</b>	115:16 117:2	<b>similarly</b> 115:2
<b>sent</b> 47:17 51:2	99:12,18 107:22	1:21 70:1 71:3	131:2 181:14	<b>simple</b> 40:16 223:6
71:10 250:2	133:8,20,22 134:2	172:1 173:11	204:5 227:15	<b>Simultaneous</b>
<b>separate</b> 45:19	135:1 142:20	191:1 192:3 194:4	250:8 254:21	230:12 232:5
79:9 80:2,8 92:21	158:3 168:14	207:19 208:18	256:11 268:6	256:18
93:15 114:14	181:18 215:13	216:19 220:21	<b>short-term</b> 194:2	<b>sincere</b> 244:20
197:8 249:18	220:6,19 240:6	224:18 225:5,14	<b>shortage</b> 258:1	<b>single</b> 116:13
<b>separately</b> 29:16	241:1	226:7 227:3	<b>shortened</b> 180:5	122:22
217:13	<b>servicing</b> 133:13	231:21 232:2,13	<b>shout-out</b> 100:13	<b>sir</b> 15:3 120:22
<b>September</b> 1:9	<b>servicing</b> 102:9	232:18 238:3	<b>shout-outs</b> 138:19	<b>sit</b> 52:21 82:2
20:16 37:14	237:20 245:2	241:4 246:12	<b>shovel</b> 230:10	228:15 242:4
183:22	<b>session</b> 63:3 264:22	247:3 249:6	<b>shovel-ready</b>	263:15 271:13
<b>sequestration</b> 25:3	271:1	250:18 251:3	121:14 229:19	<b>sitting</b> 186:3
25:7 27:19 28:7	<b>sessions</b> 5:2 6:14	252:4,11,15,20	230:2,8,10	<b>situation</b> 70:9
30:3 171:4	<b>set</b> 28:12 34:8 41:6	260:9 265:8,14	<b>show</b> 38:19 42:17	117:6 179:5
<b>series</b> 161:19	57:15 68:11 77:14	267:5,19 268:18	51:14,17 63:21	204:14
166:11	77:17 90:20	269:1	83:3 86:2 124:12	<b>situational</b> 86:6
<b>serve</b> 62:7 77:3	149:16 188:1,9	<b>ship</b> 79:3 104:8	148:4 149:2 151:2	<b>six</b> 20:17 55:7,12
80:4 82:15 87:11	229:10 257:19	111:4 115:6,17	157:15 238:13	57:16 78:20 97:5
98:19 99:7 102:12	260:2 263:5	116:2 193:12	<b>showing</b> 82:5 146:2	189:3 201:16
132:12 240:3	<b>setting</b> 260:17	237:6	<b>shows</b> 12:14 80:20	245:8
253:19,20 266:5	<b>seven</b> 55:7 124:8	<b>shipbuilding</b>	93:1 146:3 151:4	<b>sizable</b> 239:6
<b>served</b> 133:10	181:18	129:15	<b>shutdown</b> 176:18	<b>size</b> 27:9 84:16
163:2 183:1	<b>sewn</b> 152:12	<b>shippers</b> 101:17	<b>side</b> 26:19 33:12	<b>skill</b> 77:14,17
<b>server</b> 113:16	<b>sexier</b> 173:3	<b>ships</b> 79:10 84:16	35:10 43:19,21	<b>skills</b> 172:4,22
201:13	<b>sexy</b> 194:22	85:19 88:13	44:2 51:13 62:6	173:1,14
<b>serves</b> 9:15	<b>shallow</b> 4:13 11:14	110:11,20 112:5	83:17 118:8	<b>skin</b> 127:7
<b>service</b> 2:11,14	197:7,8 198:2	114:3,4,9,11,12	121:13 122:10	<b>sky</b> 61:14
24:6 25:17 28:4	219:15,21,22	115:15,20,21	123:15,15 128:9	<b>sleep</b> 173:8 178:17
39:2 52:17 53:21	221:2 223:12	116:12 119:5	134:1 150:9 164:5	186:18
54:2 96:18 99:13	225:7 229:3,21	129:17 130:7	172:13 222:13	<b>sliced</b> 74:14
99:19 101:4 108:9	231:22	170:19 187:4	237:9 263:14,15	<b>slide</b> 9:12 10:14

13:21 63:13,21 80:20,21 118:9 132:1 138:19 141:4 145:21 <b>slides</b> 4:18 6:22 83:2 147:20 149:10,15 168:1 <b>slippers</b> 233:15 <b>slot</b> 15:8 31:18 <b>slow</b> 86:20 102:3 <b>small</b> 87:1 109:20 153:10 156:5 271:3 <b>smaller</b> 88:14 179:4 <b>smart</b> 66:2 240:17 <b>smartly</b> 45:3 <b>smartphones</b> 94:3 <b>snake</b> 124:1 <b>snowball's</b> 243:10 <b>societies</b> 169:15 <b>Society</b> 164:15,20 <b>socio-economic</b> 108:14 <b>software</b> 81:20 88:20,21 89:1,5 96:21,21 99:7 159:4,13,16 160:15 176:20 <b>solar</b> 79:10 <b>SOLAS</b> 78:21 83:6 118:9 <b>Sold</b> 227:9 <b>solely</b> 187:4 267:8 <b>solid</b> 4:10 <b>solution</b> 176:11 <b>Solutions</b> 175:16 <b>solve</b> 9:4 91:18 <b>solves</b> 242:9 <b>solving</b> 220:7 <b>somebody</b> 124:20 192:10 197:12 198:11 225:20 228:9 252:18 <b>Somebody's</b> 198:6 <b>somewhat</b> 126:19 <b>soon</b> 20:13 162:8	162:10 244:22 264:13 <b>sorry</b> 126:10 201:11 231:16 245:21 261:3 264:1,5,7,7 <b>sort</b> 35:15 41:11 57:5 74:14 84:18 88:11 116:17 120:3,16 139:9 207:3 210:5 219:15 262:10 267:19 <b>sorts</b> 44:20,21 133:18 135:2,6,20 136:18 137:5 139:7 142:13 144:1 <b>sound</b> 118:10 <b>sounded</b> 216:21 <b>sounds</b> 6:5 44:12 118:13 193:13 201:15 209:7 <b>soup-to-nuts</b> 48:10 <b>source</b> 93:12 113:19 <b>sources</b> 75:6 76:12 209:5 <b>sourcing</b> 76:7 220:1 <b>South</b> 1:13 176:17 <b>southeast</b> 2:19 255:17 <b>Spatial</b> 150:4 159:19 166:7 <b>speak</b> 36:16 71:6 147:5 169:12 240:14,19 <b>speakers</b> 99:10 <b>speaking</b> 224:11 230:12 232:5 256:18 <b>speaks</b> 13:6 25:4,8 67:2 190:19 197:9 <b>spear</b> 132:19 136:17 233:6 <b>special</b> 87:6 91:14	<b>specialist</b> 137:1 <b>specialists</b> 161:21 <b>specific</b> 70:2 156:11 172:19 194:18 221:11 226:10 227:4 246:11 268:8,10 <b>specifically</b> 187:2 <b>specification</b> 14:4 <b>specifications</b> 151:19 169:18 <b>speed</b> 21:1 160:11 <b>spell</b> 167:22 <b>spend</b> 24:9 35:15 36:20 37:1 41:9 87:18 90:14 92:12 92:15 97:6 160:21 233:4 238:16 <b>spending</b> 141:15 <b>spent</b> 96:7 256:19 <b>spill</b> 26:6,7 <b>spin-up</b> 255:3 <b>spiral</b> 95:10 <b>split</b> 258:16 <b>spoke</b> 26:11 224:16 <b>sponsored</b> 169:14 <b>spot</b> 258:7 <b>spread</b> 112:2 <b>spring</b> 32:22 36:6 40:13 55:6 59:2 146:19 <b>sprint</b> 43:2 <b>squadrons</b> 93:3,5,6 <b>square</b> 82:1 111:8 111:9 150:19 <b>squeeze</b> 27:18 <b>St</b> 21:20 100:12 <b>stab</b> 113:9 <b>staff</b> 35:3 38:5 42:12 46:19 47:2 47:11,12 49:5,12 52:19,20 53:8 55:2 57:3 69:6 115:19 139:7 204:13 222:1,6 248:11 259:13 269:18	<b>staffed</b> 110:16 <b>staffing</b> 114:17 115:14,15 118:2 <b>stage</b> 149:16 <b>stakeholder</b> 150:11 162:14 167:9 <b>stakeholders</b> 51:6 52:7 59:3 74:8 78:4,19 132:22 136:2 139:6 156:6 163:7 <b>stamina</b> 210:11 <b>stand</b> 239:18 <b>standard</b> 51:12 86:4 218:19 271:7 <b>standards</b> 12:22 77:9 84:8 105:3 151:19 169:18 217:11,19 218:6 218:20 <b>standpoint</b> 11:4 12:20 22:3,10,13 217:10 <b>stands</b> 52:21 <b>staring</b> 180:17 <b>start</b> 59:4 102:5 119:11 155:17 156:4,5 188:18 192:12 198:6 200:1 203:21 220:1 225:4 231:1 <b>started</b> 11:10 25:3 64:16 72:15 79:6 98:4 121:20 <b>starting</b> 42:6 89:4 132:1 145:6 154:13 219:11 239:14 <b>starts</b> 23:13 262:18 <b>state</b> 10:20 19:9,13 50:18 52:6,9 162:22 163:2,2 169:14 172:8 216:4,5 220:3 254:8 <b>statement</b> 170:15 214:10 227:15	<b>states</b> 50:4 76:22 163:1 169:4 183:20 215:15 <b>station</b> 140:14,18 140:21 144:5 256:21 <b>stations</b> 51:16 140:19 144:3,7 159:12,14 <b>statistics</b> 107:13 175:14,19 176:5 <b>stats</b> 148:22 <b>statute</b> 182:22 <b>stay</b> 38:13 238:10 244:7 245:18 246:3 251:6 <b>stayed</b> 64:15 <b>stick</b> 177:5 269:8 <b>sticks</b> 188:22 <b>sticky</b> 68:6 <b>Stomping</b> 53:5 <b>stone</b> 105:19 106:1 <b>stool</b> 114:21 115:5 117:3 <b>stop</b> 147:12 <b>stories</b> 42:14 50:21 52:15 165:14 <b>storm</b> 54:1 135:1 140:9,12,16 150:21 <b>storms</b> 140:21 <b>story</b> 25:12 42:21 50:19 52:3 <b>straight</b> 180:10,12 <b>straightened</b> 101:16 <b>straightforward</b> 210:21 <b>stranger</b> 223:9 <b>strategic</b> 74:19,21 136:9 149:20 150:5 189:15,20 198:1 200:7 247:12 252:9,14 253:5 266:19 <b>strategy</b> 4:14,16,20 10:17 15:7 20:6
--	---	--	---	--

207:9,10 216:11 216:12,18,21,22 217:16 <b>street</b> 1:13 257:3 <b>strength</b> 199:11 <b>stress</b> 171:2 224:2 <b>strict</b> 40:19 <b>strides</b> 164:13 <b>strong</b> 67:3 190:10 <b>strongly</b> 70:12 248:21 <b>structure</b> 25:15 27:10 28:3 70:9 75:18 <b>structures</b> 16:15,16 16:17,20 17:2 <b>struggle</b> 117:2 <b>struggles</b> 213:10 <b>stuck</b> 184:14 <b>students</b> 174:17 <b>study</b> 41:4 108:15 <b>studying</b> 241:14,15 <b>stuff</b> 33:7 140:1 141:3 149:2 198:19 225:10 <b>stupid</b> 84:4 <b>style</b> 15:19 <b>subcommittee</b> 32:21 41:17 45:17 45:20 51:2 167:19 <b>subcommittees</b> 247:4 <b>Subgroup</b> 90:17 <b>subgroups</b> 247:5 <b>Subject</b> 271:19 <b>subjecting</b> 54:9 <b>submit</b> 8:19 <b>submitted</b> 55:6 159:17 <b>subpar</b> 209:9 <b>subprograms</b> 25:18 <b>subsequent</b> 236:8 <b>substantial</b> 102:1 146:13 <b>success</b> 42:13 87:2 160:17 161:14	163:17 168:12 215:6,7 <b>successful</b> 103:15 123:4 153:9 178:2 188:16 <b>succinct</b> 6:3 <b>sue</b> 53:6 <b>suggest</b> 60:18,22 191:2 198:22 236:14,19 237:5 245:7 249:4 259:11 263:9 <b>suggesting</b> 212:12 <b>suggestion</b> 170:11 189:14 192:12 232:14 235:20 236:3 244:16 259:4 267:12 <b>suggestions</b> 267:18 <b>suite</b> 84:22 134:2 134:18 138:5 159:10 <b>suited</b> 84:7 <b>Sullivan</b> 71:8,11 143:6 148:6 205:8 250:2 <b>summary</b> 213:9 <b>summer</b> 36:7 47:22 <b>summit</b> 165:4 <b>super</b> 150:21 <b>supplemental</b> 109:9 127:10 150:22 151:6 179:15 <b>supplementals</b> 109:7 <b>support</b> 39:3 41:10 43:8,16 44:13 50:14 52:8 53:21 65:21 88:16 89:13 100:1 111:14,15 128:18 135:11 139:18 150:3 165:13 167:2 178:8 182:12 195:8 203:3,13 204:22 209:18	211:11 212:7 221:6 224:14 229:2 230:14 248:19 <b>supported</b> 28:1 <b>supporting</b> 90:19 <b>supportive</b> 149:18 <b>supports</b> 11:11 45:7 77:8 196:13 <b>supposed</b> 230:22 <b>sure</b> 27:14 40:6,7 45:2 57:22 62:21 64:20 67:13 68:21 80:6,18 91:21 95:14 99:15 102:8 102:11 113:1,15 116:16 117:19 132:11,22 133:3 137:22 138:1 141:14 147:16 168:16 171:5 186:9 191:19 210:17 214:13 218:5 223:4 225:3 225:19 229:14 235:2 239:19 244:3 259:18,19 271:1,6 <b>surface</b> 194:9 <b>surfaces</b> 119:22 <b>surge</b> 135:1 <b>survey</b> 2:3,10,12,15 29:7,17,18 30:2,3 30:13,20 34:18 41:7,7 47:1 49:5 65:4,17 66:1,1 73:22 75:1,11 87:15 92:20 101:7 101:9 109:18 110:14 122:17 123:5,22 133:13 134:1,9 141:2,6 145:2,14 150:18 156:16,20 159:12 168:9 193:8 199:8 199:21 201:12,14 223:7	<b>survey-ready</b> 201:3 <b>surveyed</b> 153:21 <b>surveying</b> 34:22 41:5 46:21 47:20 48:3 111:5 112:1 164:16,18 165:8 165:16 169:14 172:13 175:7 192:22 <b>surveyors</b> 156:14 158:18 164:15,20 169:3 176:8,16 <b>surveys</b> 14:12 52:12 123:21 124:4,4 133:14 141:14 143:13 144:17,19 155:9 177:1 <b>survive</b> 140:21 <b>Susan</b> 1:21 72:10 190:3 232:1 235:4 258:19 266:1 268:15 <b>Susan's</b> 267:3 <b>suspect</b> 125:10 247:16 <b>sustainable</b> 178:21 179:22 <b>swallowing</b> 124:1 <b>swing</b> 139:6 142:8 <b>swings</b> 139:2 <b>swiped</b> 53:1 <b>symbolology</b> 86:3 <b>sympathy</b> 210:20 <b>symptoms</b> 118:3 <b>synchronized</b> 86:12 <b>system</b> 22:1 26:2 51:4,5 56:19 79:3 79:6 83:10 86:8 91:8 111:12 122:6 132:14 143:19 148:4 149:3 150:4 151:17 159:19 166:7 175:6,22 176:1,2 182:13 220:9	<b>systems</b> 51:14 77:10 81:11,11 83:8 86:9 99:8 119:5 175:4 179:13 239:13 <hr/> <b>T</b> <hr/> <b>T</b> 3:1,1,1 <b>table</b> 22:12 59:5 68:19 130:11 189:13 235:21 236:11 237:10 <b>tablet</b> 104:8 <b>tablets</b> 94:2 106:1 <b>Tacoma</b> 78:13 <b>tactical</b> 189:16,21 198:4 <b>tail</b> 123:7 <b>take</b> 4:7 12:12 14:2 14:12 18:7 30:16 42:1 45:22 59:16 68:19 73:12 80:5 83:10,13 109:21 110:22 124:7 125:16 127:18 128:16,22 129:17 131:5 141:16 145:2 155:12,14 158:11 159:11 165:8 166:13 168:1 172:19 182:6 190:3 202:10 212:5,19 213:17 215:22 216:2,8 227:13,14 232:15,15 234:3 234:19 236:20 244:1 251:15 257:21 258:15 260:20 266:14 267:15 270:1 <b>takeaway</b> 84:5 93:20 <b>taken</b> 120:20 161:1 161:2 241:18 257:17 <b>takes</b> 66:9 111:3 128:20 130:4,10
---	--	--	--	--

159:5 183:5 195:15 213:16 215:11,14 260:18 <b>talk</b> 17:19 23:6,11 41:1 48:16 49:3 50:12 53:15 56:6 58:8 81:18 95:20 99:11,18 123:14 125:9 126:4 151:9 156:17 158:7,7 165:4 167:8 170:5 184:15 212:1,1 219:3 231:1 235:2 236:16 248:22 250:21 260:10 264:9 <b>talked</b> 4:15 21:10 23:21 29:22 46:12 48:4 52:11 55:5 63:6,13 67:19 76:4,6 88:6 100:11 113:5 136:5 159:8 164:5 170:20 187:13 190:4,20 204:16 221:4 228:6 244:2 244:9 264:11 <b>talking</b> 23:3 53:19 63:17,19 96:17 108:6 121:20 129:20,21 130:5 149:18 160:22 162:17 187:15 198:5 199:9 200:1 204:11 205:20 206:12 207:1 209:16 218:16,16 219:7 221:21 235:5,11 262:11 <b>talks</b> 105:16 197:10 <b>tandem</b> 44:18 <b>Tanker</b> 83:20 <b>target</b> 14:12 129:4 130:12 186:13 <b>targeted</b> 13:7 143:20 <b>task</b> 48:9 184:6	246:4 <b>team</b> 204:11 215:16 <b>teams</b> 87:13 <b>technical</b> 17:9 19:2 91:19 98:14 173:1 182:4 207:14 <b>technologies</b> 14:19 67:8 76:5 237:8 254:7,12 <b>technology</b> 5:15 29:6 35:17 97:13 177:9,13 194:10 220:2 239:2 246:20 252:8 <b>tee</b> 57:18 204:17 <b>teleconference</b> 90:8 <b>tell</b> 35:5 50:19 52:14 89:16 125:8 145:9 198:19 201:15 207:12 208:21 <b>telling</b> 25:11 44:19 44:20 140:10 208:10 <b>tells</b> 185:17 <b>template</b> 51:12 <b>ten</b> 30:7 63:8 64:2 72:15,16 80:13 123:18 125:14 129:19 149:20 150:2 193:12 236:22 267:15 <b>tend</b> 33:13 36:22 50:5,9 51:10 <b>tends</b> 33:14 34:7 145:12 <b>tens</b> 177:11 <b>term</b> 121:13 183:1 244:14 <b>terms</b> 23:18 28:11 42:19 48:21 69:13 129:22 132:19 137:21 141:11 144:13 145:1 180:20 200:16 203:12 206:3	211:5,13 212:15 257:7 <b>terrible</b> 257:4 <b>terribly</b> 61:22 <b>test</b> 151:18 <b>testified</b> 40:13 41:14 <b>testing</b> 67:9 <b>thank</b> 10:8 22:18 72:19,20 73:14 149:5,6 170:10 178:12 180:4 181:13,15 182:16 183:1,3,6,22 184:2,22 185:1 186:21 203:21 231:20 232:1 234:17 251:5 269:10 272:5 <b>Thanks</b> 112:16 <b>thematic</b> 223:13 <b>theme</b> 51:9 222:19 <b>themes</b> 219:14 220:4 222:18 224:12 234:18,19 <b>thereof</b> 7:22 <b>they'd</b> 201:20 202:6 237:2 <b>thing</b> 9:9 10:5 33:18 35:7 41:11 69:11 72:14 77:20 89:15 99:4 105:1 105:14 108:20 110:1 120:16 122:9 124:1 139:15 150:16 171:22 176:20 181:10 189:3 194:18 197:7 199:5 203:6,16 205:1 206:6 211:6 211:7 229:9 240:20 242:11 250:10 254:4,6 259:12 263:22 <b>things</b> 15:12 16:19 17:19 18:13,17,20	19:4 20:1 22:8 26:4,8 27:16 29:12 32:10 35:18 39:4,13 44:20,21 46:17 48:20 53:22 54:3 55:1 57:1,5 57:20 61:15 82:13 84:3 89:7 110:6 112:15 126:3,17 127:15,17 131:5 133:9 134:18 135:3,7,20 137:6 137:9 138:1,4 139:7 141:12 142:13 143:15 144:2 145:9,11,16 145:22 150:1 157:13 158:21 164:22 165:15 167:1 168:5 169:15 172:13 174:15,17 176:3 188:21 189:12 190:6,11,16,21 191:7 198:1,4,7,9 204:20 208:13,20 218:15 220:11 224:9 225:2 226:15 229:17 232:19 233:21 238:10,17 241:11 249:2 254:8 256:3 257:22 258:1 268:8 270:18 <b>think</b> 4:13,18 6:5 8:22 9:7 15:4 17:5,21 18:10 19:1,4,22 20:11 20:21 21:2,6 22:2 22:15 25:8 30:9 32:9 37:22 39:22 42:16 43:1 44:15 45:22 46:4 47:13 49:19 50:2 52:9 52:13,21 53:13 54:13 59:8,10 61:6,7,9 62:9 63:1	63:3,7,11,12,16 64:14,17,18,19 65:12,13,22 66:20 67:1 69:10 70:22 71:2,8,15,22 72:4 72:10 80:7 85:20 88:1 94:22 95:9 99:16 101:11,15 103:14,21 108:3 110:7 112:14 113:20 117:14 120:10,13,14,17 122:22 123:17 125:15,22 126:17 128:11,15,21 129:15 130:12,17 130:19 131:1 132:7 145:13,18 145:20 146:3,11 149:9 151:10,21 153:1 160:16 168:13,19 171:7 171:11,21 173:7 174:6 175:3,5 177:11,13 178:17 178:22 179:1,9,11 183:16 188:2,5,6 188:12,15 189:11 189:12,17 190:2 191:15 192:16 193:11,20 194:20 195:5 196:3 197:6 197:22 198:9,18 199:19,20 200:5,8 201:3 203:9,13,18 203:20 204:15,21 205:17,17 206:19 207:15,16 208:16 209:18 212:17,21 213:11 215:5,6 219:11,14 220:9 223:1,11,22 224:3 224:4,10,12 225:1 225:13 226:9 229:5,8 230:1,5 232:13 233:4 234:1,7,14 235:21
--	---	--	--	---

236:12,17 238:8	152:6 179:1	111:19 115:22	<b>tools</b> 44:13 78:9	<b>trampling</b> 229:6
239:5,7,9,11,21	187:15 188:9,12	116:4,20 120:21	88:16 100:1	<b>transfer</b> 208:21
240:9,11,13,18,19	188:18 189:5	121:1 122:8 125:7	137:19 158:10,11	215:1 225:10
241:5,11,19 242:2	193:13 220:4	129:1,11,18,18	<b>top</b> 80:22 157:17	226:4
243:4,10 244:2,4	226:5 227:13,14	130:2 134:4	220:16	<b>transfers</b> 224:8
245:3,10 246:12	236:4,5,10 244:16	135:17 139:13,14	<b>topic</b> 71:6 93:17	<b>transform</b> 75:3,15
249:3,13 250:11	244:16 245:19,22	146:1 148:1	129:16,22 203:15	75:22 158:12,20
250:16 254:6	246:13 247:10	160:18 162:5	231:14 233:2	<b>transition</b> 79:7
255:3 256:9,12	248:2 249:11	164:22 166:2,6	236:14,18 238:4	91:2,11 104:20
257:20 259:3,7	261:16 271:12	168:22 172:5	241:5,5,8 246:13	<b>transitioned</b> 119:3
262:15,17 263:21	272:5	175:18 179:11	246:17 249:5	<b>transitioning</b> 93:18
264:10,18 265:11	<b>three-legged</b>	180:7 181:21	270:20	<b>transitions</b> 85:4
266:6 270:18,21	114:21	185:10,18 186:1	<b>topics</b> 203:1,1	<b>translation</b> 158:6
271:16,21	<b>threw</b> 50:1	192:15 198:11	221:20 224:16	<b>transparent</b> 186:9
<b>thinking</b> 48:19	<b>throw</b> 129:10	202:10 203:20	230:19 231:2	<b>transport</b> 12:18
54:10,19 55:17	188:21 192:4	213:16,19 215:11	236:1,10 237:14	<b>transportation</b>
59:8 74:12,14	197:13,14 199:18	216:8 217:20	263:17	56:19 57:12 91:7
97:7 103:11 110:3	204:7	223:10 233:5	<b>topo</b> 151:2	111:12 132:14
218:13	<b>throwing</b> 7:10	235:12 238:7,11	<b>topo-bathy</b> 150:19	133:22 182:13
<b>thinks</b> 268:19	198:7 227:12	238:17 242:5,12	<b>topobathy</b> 127:5	253:1
<b>third</b> 4:6 75:7 95:8	258:3	253:22 254:2,20	<b>topographic</b> 17:4	<b>travel</b> 85:1 116:17
115:13 116:10	<b>thrown</b> 38:4	254:21 256:20	<b>topopathy</b> 15:3	131:7 148:17
150:10 151:15	<b>Thursday</b> 1:8	260:12,18 262:9	31:15	185:9,11
160:15,19 179:19	255:4	262:11,14 264:19	<b>tortured</b> 181:5	<b>traveling</b> 131:3
225:14 237:4	<b>ticking</b> 220:1	265:5 272:4,6	<b>toss</b> 124:17	<b>Traver</b> 218:22
238:21	<b>tidal</b> 141:1 143:12	<b>timeline</b> 20:17	<b>total</b> 53:13 153:21	<b>treasurer</b> 268:16
<b>third-party</b> 169:8	<b>tide</b> 29:9 94:19	<b>timely</b> 75:18 263:5	270:16	<b>treat</b> 91:13
<b>Thomas</b> 117:11	140:5	<b>times</b> 10:10 11:19	<b>touch</b> 103:10	<b>treated</b> 65:6
<b>thought</b> 5:17 15:6	<b>tides</b> 35:13 134:5	15:21 20:17 45:6	157:17	<b>tremendous</b> 94:8
61:2,4,19 118:5	<b>tie</b> 166:6 198:14	49:15 109:3	<b>tough</b> 24:18,22	140:15
118:17 201:10	<b>Tiffany</b> 2:14 4:21	137:11 184:13	27:12 65:13	<b>tremendously</b>
205:20 209:1	185:17 265:2	207:12 255:22	<b>towing</b> 80:10 96:7	116:22
228:2 235:21	266:22	<b>tip</b> 136:16 156:20	<b>toys</b> 198:12	<b>trend</b> 24:5,17 25:4
<b>thought-provoking</b>	<b>tight</b> 115:1	233:6	<b>track</b> 38:15 175:11	64:21
186:17	<b>tile</b> 108:8 113:16,18	<b>tips</b> 132:19	200:20	<b>trends</b> 135:4
<b>thoughts</b> 31:1 42:9	113:21	<b>title</b> 133:9 158:15	<b>trade</b> 52:22 148:10	<b>Tri-Office</b> 238:18
45:21 54:5 66:20	<b>Tim</b> 139:8	<b>titled</b> 232:12	<b>trademark</b> 53:2,4,6	<b>trial</b> 102:16
220:13 263:20	<b>time</b> 7:6 9:6 11:5	<b>titles</b> 247:8,9	<b>traditional</b> 78:21	<b>triangulation</b>
<b>threat</b> 240:22	15:8 20:11 21:5	<b>TMAC</b> 16:4 20:14	79:19 82:7 100:8	157:13
241:2	23:4 30:20 32:7	21:4 164:8	<b>Traditionally</b>	<b>tried</b> 8:9 103:12
<b>three</b> 11:16 25:18	39:7,7 47:22	<b>today</b> 36:11 44:1	80:22	127:6
25:21 26:21 41:13	49:16 57:16 59:15	123:14,17 186:10	<b>traffic</b> 5:13	<b>TripleZero</b> 107:1,5
56:22 88:2 90:9	63:9 65:2,3 69:9	206:16 222:22	<b>train</b> 160:14	<b>triservice</b> 73:1,12
103:12,13 104:17	87:18 90:15 91:13	<b>told</b> 124:9 207:11	<b>trained</b> 159:15	73:16
106:17 117:3	92:12,16 96:8	<b>tool</b> 80:1 128:10	160:10 172:3	<b>Triservices</b> 131:14
135:8,22 137:11	97:7 100:4,6	158:16 175:21	<b>training</b> 144:1	<b>trooper</b> 59:11
140:8 150:13	101:2 109:17	176:7,14	160:12	<b>trouble</b> 86:16

212:21  
**true** 6:6 27:6 33:10  
 33:16 122:16  
 201:22 223:20,21  
**truly** 33:22 118:4  
 200:11  
**try** 8:20 12:22 20:7  
 23:3 35:10 52:4  
 52:14 55:21 58:6  
 86:20 99:20 136:2  
 137:16 141:17  
 144:14 163:22  
 167:10 174:8  
 178:8 180:13  
 186:1 189:15  
 197:22 204:17  
 207:15 216:9  
 222:18 227:15  
 230:9 238:13  
 251:1 260:10  
 270:14  
**trying** 9:2 13:4  
 54:6 57:14,18  
 118:20 122:10  
 145:2 188:10  
 201:2 207:6  
 208:13 262:2  
**tsunami** 135:2  
**Tuesday** 175:3  
**tug** 80:10  
**tumbleweeds** 257:3  
**tuned** 38:13  
**tunnels** 229:7  
**turn** 85:10 118:20  
 120:1 125:17  
 183:12 185:13  
 210:2,22 240:9  
**turning** 124:13  
 132:2  
**turns** 84:10 115:14  
**tweaks** 37:5  
**twice** 118:17  
 120:21  
**two** 5:6 9:15 20:20  
 23:6 24:16 44:17  
 45:1 47:9 59:18  
 60:11 62:14 65:5

82:13,14 86:13  
 88:2,3 90:8 93:15  
 102:5 104:22  
 106:12,19 110:9  
 128:17 138:19  
 148:10 152:5  
 162:2 163:18  
 180:17,20 181:8  
 187:4 189:9,9  
 190:16,21 193:21  
 194:19 195:15  
 196:17 199:12  
 205:22 208:1  
 211:17 224:16,18  
 225:8 227:14  
 239:18 247:4,5  
 256:11 258:17  
 263:19 265:22  
 270:16  
**two-year** 169:5  
**type** 12:14 14:11  
 54:18 157:12  
 241:20  
**types** 19:4 159:6  
**typically** 83:7  
 137:3 140:19

## U

**U.S** 1:1 77:3 85:13  
 173:13,18 202:21  
 203:7 221:3  
 225:15 226:7,13  
 229:21 231:18  
 232:9  
**UAVs** 194:8 197:6  
**UCAR** 166:19  
**Uccellini** 52:18  
**ugly** 5:10  
**ultimate** 136:17  
**unauthorized**  
 238:10  
**uncertified** 16:14  
**uncomfortable**  
 189:4  
**undergo** 117:9  
**underneath** 77:6  
 227:4  
**understand** 7:5

78:3,7 89:10 94:6  
 97:20 101:11  
 133:1 166:3  
 200:11 254:10  
**understandable**  
 186:20  
**understanding**  
 18:12 85:16  
 206:14 213:14  
**understands**  
 252:19  
**understood** 267:20  
**underway** 17:10  
 76:9 108:16 116:3  
**Underwriters** 98:6  
**unexpected** 180:1  
**unfortunately**  
 10:19 62:19  
 215:22 242:19  
**unique** 75:11 77:13  
 77:14,15 194:18  
 215:4 257:9  
**unit** 108:12 151:3  
**United** 76:22  
 183:20  
**units** 88:18 91:8  
 170:4  
**universities** 32:14  
 154:7 174:5,7,15  
 211:9  
**University** 2:2  
**unlimited** 195:2  
**unscheduled** 73:13  
**unusual** 161:12  
**up-to-date** 18:19  
 155:8  
**upcoming** 141:1  
 183:7  
**update** 3:8 19:21  
 22:21 23:2 104:10  
 104:16 128:17  
 158:2  
**updated** 18:13 92:5  
 129:1  
**updates** 3:11 52:11  
 73:12,16,19  
 100:17 107:12

158:4 165:14  
 167:16  
**upgrades** 169:7  
**uphill** 69:14  
**upset** 264:8  
**upward** 25:4 64:20  
**urge** 146:6  
**urgent** 238:15  
**usage** 175:19  
**USCG** 2:17  
**USDA** 45:11  
**use** 12:22 15:19  
 18:9 20:7 21:12  
 34:11 45:5 48:6  
 54:21 59:20 75:9  
 78:7 79:11,12  
 80:1 81:13 84:11  
 87:6 88:17,19,22  
 89:1 93:11 95:7  
 99:9 103:17 119:2  
 119:4 129:8  
 137:19 140:4  
 143:2 145:4,19  
 151:14,20 152:12  
 152:13,20 155:17  
 159:13,15 160:15  
 160:16,18 166:22  
 168:15 173:22  
 175:7,9,11 176:6  
 177:22 194:6,8  
 208:21 209:6,10  
 216:15 218:11  
 240:4 242:20  
 264:19 271:3,8  
**useful** 72:14 89:20  
 132:12 158:13  
 169:9  
**user** 114:18 166:1  
 167:16  
**user-friendly** 159:5  
 160:7  
**users** 18:8 22:4  
 74:8 75:9 78:19  
 80:9,16 81:1,6,13  
 81:14 82:22 97:15  
 98:1 100:2,10  
 103:11 119:14

132:11 150:3  
 158:19 160:10,20  
 175:15 176:19  
 218:7  
**uses** 113:22  
**USGS** 11:17 12:6  
 21:18,19 45:12  
 146:11 151:8  
 164:7 215:1  
**USS** 90:22  
**usually** 142:2  
**utilization** 194:3  
**utilize** 178:5

## V

**V** 158:7  
**validation** 67:9  
**valuable** 9:7 140:3  
 145:17 179:10  
 254:9  
**value** 25:12 40:9  
 75:11 80:21 81:9  
 99:3 112:3 123:10  
 176:9 239:9  
**variety** 81:12 105:8  
 167:14  
**vector** 86:11 94:20  
 106:9  
**vector-based** 82:11  
 82:12  
**vehicle** 60:17  
**vendor** 169:8  
**vendors** 89:5,10  
 170:6  
**venue** 256:10  
 260:19  
**venues** 87:21  
**verbal** 249:16  
 265:3,7 272:2  
**verbiage** 233:2  
**versa** 13:20 218:6  
**version** 68:7 84:21  
 94:5 102:21  
 103:17 158:17  
 159:7  
**versions** 158:20  
**versus** 46:1 51:19  
 88:10 239:4

<b>vertical</b> 153:6 154:14,16 155:1 155:20	<b>waiting</b> 6:8 117:21 159:21 163:15 235:15	99:1 122:19 124:18 125:11 157:15 158:4 200:15 236:22 262:21 267:15	149:14 160:2 162:1,13 163:19 165:7 168:17 169:17 179:8 196:4,11 207:3 209:6,10 210:16 233:16 238:7 254:6 255:1,21 267:17	102:2,4,8 106:13 106:19 111:1 117:6 118:15,19 120:5 122:18 126:5,19 129:10 132:9 133:3,12,22 135:22 138:3,11 138:13 139:14,18 140:1 141:5,5,15 141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>vessel</b> 125:16	<b>Wales</b> 176:17	<b>wanting</b> 92:8 197:13	<b>ways</b> 54:6,10 62:15 80:5 81:14,21 82:5 122:20 134:7 144:15 150:8 160:6 168:17 208:20 222:22	161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>vessels</b> 80:10 83:7 96:6 110:9,19 111:22 141:12 194:19 195:19 196:5	<b>walk</b> 126:6 185:13	<b>wants</b> 69:18 267:3	<b>we'll</b> 5:3 23:11 28:18 37:6 43:4 56:10,17 70:21 73:12 78:15 98:8 99:13 105:5 107:16 108:6 120:8 131:9,13 150:15 162:13 174:20 183:6 218:19,21 227:17 227:17 230:21 232:15,16 235:10 249:17 251:16 252:2 258:16,16 259:14 261:10 265:12 270:4,22	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>walking</b> 79:14 247:16	<b>wall</b> 188:21 189:21 198:7 232:11	<b>WARD</b> 2:19	<b>we're</b> 6:8 8:4 25:11 27:14 31:9 42:5 42:19 44:18 45:2 46:1,4 53:6,7 54:1 54:5,10,18 55:19 55:20 56:7,14 57:8,14,18,22 58:4,10,22 59:8 66:4 69:19 72:7 74:16,16 75:7,8 75:19 80:6 82:20 84:17,20 90:10,19 92:8,10 93:8,10 94:17 95:1,18 96:8,17 97:3,8,12 98:17,18 99:3,19	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>wander</b> 219:12	<b>wanted</b> 15:4 28:11 30:16 32:13 33:21 45:22 50:10 61:10 62:3 63:10 64:11 74:4,6 78:3,17	<b>warned</b> 236:13	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>want</b> 5:9 27:16 28:22 37:1,22 38:12,19 39:7 49:3 50:18 56:5 58:6 62:20 71:3 73:7,8 85:20 89:8 94:13,21 103:9 116:11 121:1,3 122:11 129:5,12 141:9 150:16 152:22 158:1,19 163:5 164:2,12 166:12 170:5,13 175:8 177:5 178:14 180:9,22 181:13,14 186:4,8 186:11,13 188:17 189:7 190:9 194:20 195:21,22 196:5,16 197:11 198:12,19 199:2 199:16,17,22 206:6,9 208:18 214:7 221:16 224:2 225:6 231:8 231:16 235:1 236:14 237:2 240:9 244:5 248:1 250:10,14,15 260:20,21 262:19 264:17,18 268:5,8 272:4	<b>warnings</b> 135:2,2	<b>wasn't</b> 206:20 263:11	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>warranted</b> 71:22	<b>Washington</b> 156:20	<b>water</b> 4:14 51:18 79:22 127:4 133:10 141:22 197:7,8 198:2 219:15,21,22 221:2 223:12 225:7 229:3,22 230:9 231:22 253:13	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>Washington</b> 156:20	<b>waterways</b> 138:16	<b>waters</b> 92:2 142:14	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>wasn't</b> 206:20 263:11	<b>Watson</b> 2:20 180:19 183:20 184:2,10,17,22 237:15,17 245:21 246:2,10 250:13 250:20 261:3,7 269:20 270:3 271:17	<b>waterway</b> 79:21	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>watched</b> 83:15	<b>way</b> 10:2 17:14 18:18 33:3 38:8 44:22 60:8,9,18 63:4 77:15,22 79:12 81:8 84:10 86:1 97:17 101:2 107:1 116:19 118:11 120:10 124:11 132:5,6 138:15 148:2	<b>Waterways</b> 138:16	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>water</b> 4:14 51:18 79:22 127:4 133:10 141:22 197:7,8 198:2 219:15,21,22 221:2 223:12 225:7 229:3,22 230:9 231:22 253:13	<b>wanted</b> 15:4 28:11 30:16 32:13 33:21 45:22 50:10 61:10 62:3 63:10 64:11 74:4,6 78:3,17	<b>Waters</b> 92:2 142:14	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>waterway</b> 79:21	<b>wait</b> 37:19 70:21 250:4	<b>Watson</b> 2:20 180:19 183:20 184:2,10,17,22 237:15,17 245:21 246:2,10 250:13 250:20 261:3,7 269:20 270:3 271:17	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>Waterways</b> 138:16		<b>Watson</b> 2:20 180:19 183:20 184:2,10,17,22 237:15,17 245:21 246:2,10 250:13 250:20 261:3,7 269:20 270:3 271:17	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>Watson</b> 2:20 180:19 183:20 184:2,10,17,22 237:15,17 245:21 246:2,10 250:13 250:20 261:3,7 269:20 270:3 271:17		<b>way</b> 10:2 17:14 18:18 33:3 38:8 44:22 60:8,9,18 63:4 77:15,22 79:12 81:8 84:10 86:1 97:17 101:2 107:1 116:19 118:11 120:10 124:11 132:5,6 138:15 148:2	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
<b>wait</b> 37:19 70:21 250:4		<b>way</b> 10:2 17:14 18:18 33:3 38:8 44:22 60:8,9,18 63:4 77:15,22 79:12 81:8 84:10 86:1 97:17 101:2 107:1 116:19 118:11 120:10 124:11 132:5,6 138:15 148:2	<b>we've</b> 12:21 13:10 14:18 23:9,18 24:1 25:3 35:1,3 37:13,16 42:6,14 42:15,16 43:1 46:11,12 49:21 52:11 58:14 69:1 74:11,12,13,19,20 78:4 80:14,17 82:2,9,17,18 83:8 87:1 88:6 91:9,19 92:20 93:6,22 99:6,10,14,14,15 100:11 101:15 103:2,6,14,16	141:15,21 142:5,6 142:10 143:13,18 144:15 145:6 153:20,22 159:3 161:8,17 162:6,7 162:8 163:3,15 165:15 166:17,21 174:12 178:11 186:2,9 189:8 190:15,17 191:2 191:11 198:22 200:16 204:15 207:14 208:13 210:1,5 216:18 218:4,15,16 219:5 219:11 221:21 222:15,18 225:3 226:17 227:3 230:9,22 232:22 235:11,15 240:15 240:17 245:7 248:8 251:1 262:11 268:2
		<b>way</b> 10:2 17:14 18:18 33:3 38:8 44:22 60:8,9,		

104:14 105:15	54:14 71:13,13	<b>Wisconsin</b> 69:4	239:6 241:7,14	<b>world</b> 42:15 97:9
106:12 107:14	235:10 237:19	<b>wish</b> 61:14 120:17	247:2,9 251:8,13	97:14 106:5
109:5,5,13,18	270:7	182:10 188:2	253:8 259:22	110:15 119:3,18
111:7 113:4	<b>weekly</b> 107:20	<b>withdrawn</b> 92:2	263:12 268:8	137:20
114:22 117:1,20	<b>weeks</b> 23:14 38:11	<b>wonderful</b> 190:4	<b>worked</b> 10:17	<b>worries</b> 171:22
119:3 121:13	148:10 263:2	<b>wondering</b> 7:1	12:21 59:19 80:17	<b>worry</b> 24:14 252:1
122:9 125:9 127:1	<b>welcome</b> 269:11	175:10 206:5	86:12,18 178:7	269:15
128:11 135:4,16	<b>Wellslager</b> 1:21	<b>word</b> 19:17 66:5	193:3 211:18	<b>worse</b> 92:9
142:9,13 145:19	5:19 157:16	174:9 197:11	<b>workforce</b> 77:13	<b>worth</b> 176:11
149:12 151:12	180:20 181:1	200:9 201:3	161:3,22 171:13	<b>worthy</b> 191:5
155:2,14 158:4	182:21 183:3	226:19 227:15	171:21 173:22	<b>wouldn't</b> 199:17
160:19 161:1,2,14	205:4 206:12	250:17	174:3	216:10 224:21
162:15 163:4,17	208:9 227:2,9	<b>word-crafting</b>	<b>working</b> 4:22 5:16	246:17
164:5,13 168:10	<b>went</b> 10:20 15:3	233:4	6:5,6 7:4 17:22	<b>Wozencraft</b> 10:11
169:11 170:1	27:4 47:1 48:4	<b>wording</b> 242:8,20	18:4 24:1 31:9,10	<b>wrapped</b> 29:8,10
171:11 174:6,7	51:11 64:8,14	<b>words</b> 9:14 74:5	42:8,14 44:18	210:5
185:21 188:5	83:13 93:14 102:7	194:7 202:14	55:19,20 56:20	<b>wrapper</b> 194:13
190:5 207:11,16	104:22 107:16	203:14 223:9	57:3,8 58:10	226:19
214:22 215:5,6	111:6 131:11	227:12,17 228:17	75:20 77:7 106:13	<b>wrapping</b> 231:1
217:18 222:21	143:21 150:21	<b>wordsmithing</b>	108:11 116:19	<b>WRIGHT</b> 2:20
224:1,11,12	168:22 176:19	250:4	133:15 134:1	<b>write</b> 192:9 196:4
234:18,18 253:17	185:6 249:12	<b>work</b> 4:9 5:3 8:7	138:2 164:14	196:11 227:20
255:15,16,18,18	<b>weren't</b> 32:12	9:19 20:22 33:3	174:10 178:18	228:16 229:13
258:18 260:5	<b>west</b> 255:22 258:4	35:3 36:5 37:5	180:6 184:7 191:6	<b>writing</b> 69:2
264:11 265:11	258:5,6	38:5,18 39:19	192:1 204:9	<b>written</b> 213:9
269:22	<b>whacked</b> 117:4	40:5 44:6,15,16	209:22 216:18	<b>wrong</b> 22:20
<b>weak</b> 231:9	<b>whales</b> 234:1	45:1 47:7 48:1,8	218:22 219:1	<b>wrote</b> 175:17 228:9
<b>weather</b> 39:1 52:17	257:11,12	50:13 52:12 54:1	231:13 235:2,20	
53:20 54:2,2	<b>whatnot</b> 257:9	56:13,16 59:5	235:22 236:3,11	<b>X</b>
99:13,19 129:9,9	<b>wheel</b> 104:8	67:14 70:15 76:15	236:17 237:4,20	<b>x</b> 76:9 86:3
139:20 140:7	<b>white</b> 27:2 155:13	87:14 98:3 102:4	238:4,6 239:8,11	<b>XYZ</b> 221:19
146:12	<b>wholesale</b> 45:8	116:1 117:19	241:7 244:5,17	<b>Y</b>
<b>web</b> 82:21 97:16	<b>wide</b> 207:4	120:18 124:2	245:4,9,17,20	<b>yeah</b> 32:5 106:2
107:22 144:20	<b>widely</b> 154:22	125:5 127:8	246:1,5 247:10	<b>year</b> 10:18 14:14
168:14 265:6	<b>wider</b> 165:5	137:13,15 141:3,5	248:5,12 249:4,11	20:18 23:1,7,15
<b>webinar</b> 5:15 7:16	<b>wife's</b> 59:10	146:14 151:20	250:9,14,22	24:6 25:3,7 28:5
165:18 231:15	<b>wiggle</b> 188:13	152:1 156:10,13	251:16 253:17,18	30:1,1 34:8 36:17
<b>webpage</b> 158:1	<b>Wild</b> 218:9	156:18 157:12	258:14 259:4	37:7 42:5,8 43:5
<b>website</b> 8:6 103:7,8	<b>WILLIAM</b> 1:16	165:3 168:2	260:1,3 266:5	44:16 47:9,21
107:7 132:4	<b>willing</b> 68:19	174:18 177:17	267:4 268:4,7,14	49:16 59:2 74:18
137:19,20 144:12	125:19 197:14	178:12 183:15	271:10,13	74:22 85:7 92:16
145:5,10,12 146:3	263:7 266:5	185:22 195:12	<b>works</b> 12:2 51:5	93:14 94:4 100:19
146:5 152:19	<b>willingness</b> 182:6	200:21 205:12	96:22 110:16	104:22 108:16,17
159:3 168:10	<b>win-win</b> 140:22	211:4 213:19	209:22 215:16,17	108:19 112:2
<b>websites</b> 89:18	<b>wind</b> 209:4	214:21 215:19	<b>workshop</b> 58:12,22	114:3,21 115:3,7
144:17	<b>window</b> 28:15	217:16 220:10	<b>workshops</b> 160:12	115:7,11,11,18
<b>week</b> 36:13 38:8	137:20	236:1 238:9,13	169:11,13,16	116:22 117:4,12

118:1 121:17 124:12 125:15 138:4,18 139:5 143:8 144:16 145:5 149:13,20 150:2 153:13 154:20 155:12,21 157:2 158:5,17 160:16 161:2,17 164:13 165:8,19 167:11,13 174:6 176:17 178:22 192:20 193:13 199:13 215:20 235:12 236:7 <b>years</b> 18:11 23:6 24:22 27:13 40:1 40:18 57:16 59:19 65:14 74:20 78:5 79:8 80:14 86:13 88:2,2,3 91:12 93:7 103:2 106:17 106:20 109:4,12 110:11,21 111:3 112:13 115:1 119:11 120:9 122:3 123:19 124:8,10 128:14 128:17 129:19 132:15 143:12 144:4,5,21 156:22 159:22 163:18 168:11 172:11 176:12 178:17 181:8,19 183:14 183:19 184:9,9 192:15 193:4,5,12 201:16 243:1 <b>yesterday</b> 4:12 5:2 5:10 6:18 10:10 10:16 12:9 15:12 26:12 36:10 43:7 51:18 71:2 76:4 84:14 88:7 154:15 159:9 171:8 209:3 265:9 <b>yesterday's</b> 4:8	<b>York</b> 70:3 255:16 <b>York/New</b> 179:2 <b>Young</b> 40:11 <b>YouTube</b> 166:11 <hr/> <b>Z</b> <b>zone</b> 39:22 256:17 <b>zoom</b> 107:10 <hr/> <b>0</b> <hr/> <b>1</b> <b>1,200</b> 83:22 <b>1.5</b> 84:21 <b>10</b> 39:8 85:10,15,21 110:21 111:3 112:13 118:20 161:6 192:15 <b>10:37</b> 131:11 <b>100</b> 121:8 123:17 128:12 227:17 <b>101</b> 165:18 <b>10th</b> 99:5 <b>11</b> 29:20 67:6 158:18 <b>11,000</b> 124:12 <b>11:08</b> 131:12 <b>11th</b> 37:8 <b>12</b> 29:20 33:4 110:21 112:13 <b>12:08</b> 185:6 <b>12:30</b> 73:6,8 <b>12:38</b> 185:7 <b>125</b> 1:13 <b>13</b> 27:19 30:1,3,7 <b>14</b> 23:7,11 27:19 28:17 30:1,7 114:7 <b>1409</b> 272:3 <b>15</b> 23:13 104:22 109:12 131:6,8 178:17 227:16 <b>15-16</b> 264:3 <b>150</b> 144:5 <b>16</b> 19:13 <b>1700</b> 185:11 <b>18</b> 1:9 <b>180-190</b> 114:8	<b>186</b> 3:16 <b>1900</b> 185:11 <b>1912</b> 101:13 <hr/> <b>2</b> <b>2</b> 3:5 4:3 71:17 <b>2-3</b> 263:1 <b>2.0</b> 84:20 <b>2:09</b> 272:3 <b>2:10</b> 272:9 <b>2:30</b> 233:15 <b>20</b> 19:11 24:20 27:1 27:3 30:15,21 40:1 64:1,7,8 161:6 169:6 172:11 192:15 202:5 <b>2000</b> 64:12,15 <b>2006</b> 64:12 <b>2008</b> 64:3 <b>2009</b> 11:7 <b>200th</b> 144:7,8 <b>2010</b> 24:7,18 30:13 30:15,18 64:6,16 65:14 <b>2011</b> 157:8 <b>2013</b> 24:19 25:2 27:13,18 28:6 39:18 40:13,15 64:6 <b>2014</b> 1:9 27:17,22 28:5,14 31:13 64:6 65:14 127:2 153:2,12 263:1 <b>2014-2015</b> 31:9 <b>2015</b> 24:7,7 28:14 28:18 31:4,20 37:13 38:13 64:6 165:4 264:4,5,7 <b>2020</b> 154:21 <b>2022</b> 165:6 <b>20s</b> 111:4 <b>22</b> 3:8 154:21 <b>22.5</b> 186:5 <b>22nd</b> 71:10 <b>24/7</b> 35:16 <b>25</b> 227:11,15 228:17	<b>2600-2700</b> 150:18 <b>26th</b> 108:18 <b>29</b> 154:18 <hr/> <b>3</b> <b>3</b> 3:5 4:3 <b>30</b> 180:5,14 260:22 <b>30-minute</b> 180:10 <b>35</b> 183:19 <b>38</b> 153:20 <b>3rd</b> 183:22 <hr/> <b>4</b> <b>4</b> 3:5 <b>40,000</b> 111:9 <b>45</b> 180:14 230:22 <b>46</b> 110:11 <b>48</b> 14:13 <hr/> <b>5</b> <b>5,000</b> 176:19 <b>50</b> 93:7 <hr/> <b>6</b> <b>6:00</b> 257:2 <b>60</b> 179:12 249:10 <b>61</b> 160:11 <hr/> <b>7</b> <b>70</b> 243:19 <b>73</b> 3:11 <b>77</b> 154:2 <hr/> <b>8</b> <b>8:30</b> 1:13 <b>8:32</b> 4:2 <b>80</b> 53:13 68:15 <b>83</b> 158:21 <b>88</b> 154:18 <hr/> <b>9</b>
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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Hydrographic Services Review Panel

Before: NOAA

Date: 09-18-14

Place: Charleston, SC

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