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U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

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HYDROGRAPHIC SERVICES REVIEW PANEL MEETING

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THURSDAY MAY 24, 2012 + + + + +

The Panel met in the Aleutian Conference Room in the Hilton Anchorage, 500 West Third Avenue, Anchorage, Alaska, at 8:30 a.m., Matt Wellslager, HSRP Chair, presiding. PANEL MEMBERS PRESENT:

MATT WELLSLAGER, Chair SCOTT PERKINS, Vice Chair RADM KEN BARBOR LAWSON BRIGHAM, Ph.D. JEFFREY CAROTHERS CAPT. DEBORAH DEMPSEY MICHELE DIONNE, Ph.D.

WILLIAM HANSON DAVID JAY, Ph.D. GARY JEFFRESS, Ph.D. FRANK KUDRNA, Ph.D. JOYCE MILLER

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NON-VOTING MEMBERS PRESENT: JULIANA BLACKWELL, NOAA/NGS Director RICHARD EDWING, NOAA/CO-OPS Director LARRY MAYER, Center for Coastal and Ocean Mapping, University of New Hampshire NOAA STAFF PRESENT: CAPT. JOHN E. LOWELL, JR., Designated Federal Official RADM EVELYN FIELDS, NOAA LTJG MATT FORNEY, NOAA/OCS, Navigation Manager of Alaska CAPT. GERD GLANG, NOAA/NOS AMY HOLMAN, NOAA Alaska BILL KNIGHT, NOAA West Coast and Alaska Tsunami Warning Center CARVEN A. SCOTT, NWS/Alaska Region Headquarters KATHY WATSON, HSRP Program Coordinator ALSO PRESENT: CAROLE ANDERSON, ADS-B Technologies ALAN BALDIVIES, Alaska Energy Authority LARRY BISCHOFF, Holland American Line RON BRITTON, Alaska Peninsula National Wildlife Refuge BRET CHRISTENSEN, U.S. Fish & Wildlife Service JOEL CUSICK, National Park Service JON DASLER, David Evans & Associates ANNE DOLLARD, U.S. Army Corps of Engineers DARCY DUGAN, Alaska Ocean Observing System SHANNON EARL, Fugro Consultants KAS EBRAHIM, Fugro Consultants AIMEE FISH, National Weather Service

JOHN GERHARD, Woolpert Inc. CHUCK GILBERT, National Park Service PENNELOPE GOFORTH, SeaCat Explorations WILLIAM HAZELTON, Geomatics, University of Alaska Anchorage

Page 3 TOM HEINRICHS, Director of GIS Network of Alaska at University of Alaska Fairbanks and Executive Committee for Statewide Digital Mapping Initiative TOM LAKOSH, Public Interest Advocate for Oil Spill Prevention and Mitigation and Renewable Energy CAROL LOCKHART, Woolpert, Inc. MOLLY McCAMMON, Alaska Ocean Observing System STEVE MILES, David Evans & Associates JUDY MILLER, Brendan Environmental TOM NEWMAN, TerraSond JOHN OSWALD, JOA Surveys BOB PAWLOWSKI, Office of State Senator Kevin Meyer and University of Alaska Anchorage (retired) JOEL REYNOLDS, Western Alaska Landscape Conservation Cooperative MICHELLE RIDGWAY, Oceanus Alaska and Alaska Deep Ocean Science Institute MARK SMITH, Vitus Marine BOB STROBE, National Park Service CAPT. MICHAEL TERMINEL, Edison Chouest MIKE ZIEGERL, JOA Surveys

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1	P-R-O-C-E-E-D-I-N-G-S
2	8:28 a.m.
3	CHAIR WELLSLAGER: Good morning,
4	everybody. Well, it's the last day. It's
5	going to be a fun day. We're going to come up
б	with some ideas and recommendations today.
7	But, before we get started, we are fortunate
8	to have two presentations this morning before
9	the breakout sessions.
10	My nav manager of Alaska would
11	like to give us a broad overview of things
12	that he's seeing taking place in the state in
13	the three different sections, and give us his
14	ideas of where things actually are.
15	And then, we're going to have a
16	presentation using GIS, and do a virtual fly-
17	through the Arctic Ocean, and I'm actually
18	looking forward to seeing that. That's going
19	to be really cool to see the Arctic Sea floor
20	map in a virtual setting.
21	So, if you would please, let's
22	welcome LTJG Matt Forney, and let's hear what

Page 6 1 he has to say. 2 LT. FORNEY: Thank you very much, It really is a pleasure to be up 3 Mr. Chair. 4 here after yesterday afternoon's discussion. 5 Mr. Wellslager asked me if I'd pop up here and give a guick, brief overview of Alaska, and 6 7 some of the navigation services, as well as 8 some of the navigation concerns that are going 9 on here in Alaska. So really, if you look at the 10 state of Alaska, we really do break it into 11 12 three different regions. You have - and actually, they generally follow the same 13 14 regions that the pilots follow, which is 15 southeast, south central, and then you have 16 the rest. 17 So, the way that this is - this area right in here, this is southeast, south 18 19 central, and then the rest. So - and the rest 20 just so happens to follow this federal 21 definition of what the Arctic is. So really, 22 when you start looking at it into a regional -

Page 7 regionalize the state, there's different 1 2 concerns in each of these areas. 3 So, to start out, in southeast, one of the main driving economic forces there 4 5 is tourism, and it is the cruise industry. And in that cruise industry, one of the things 6 7 that NOAA has actually dedicated a lot of time 8 and resource to, is the effort of collecting 9 100 percent bottom coverage multibeam data in 10 that area. I don't want to make it sound like 11 12 we've completed the job, it's definitely not There are still definitely areas that 13 over. 14 we need to put forth quite a bit more resources. With that being said though, it is 15 16 the best area. 17 It is one of the places that is 18 actually, as you can imagine, the most 19 accessible, as it is closest to Seattle, and 20 as well as very, very well developed due to 21 the economic availability of resources that 22 have been developed there in the past, namely

1	
	Page 8
1	gold.
2	Also in that area, there is a
3	large fishing fleet as well. I want to call
4	it as big as the Bristol Bay fishery,
5	definitely not that large, but definitely
6	still a user of our products and services.
7	So, now that we move over here
8	into the south central, there's a number of
9	things. We've heard about what's known as the
10	Port of Alaska, which is the one that serves
11	600,000 of the 700,000 citizens of Alaska.
12	The other thing that is in south
13	central is the Valdez pipeline, which is also
14	a major port facility, and also deals with a
15	large amount of the commerce that does come
16	out of Alaska.
17	Another thing that's actually
18	affecting this entire coast area in the Gulf
19	of Alaska area, is marine debris. That's a
20	thing that we haven't heard much about. It is
21	definitely a live, living, current topic, that
22	is every day washing up on our beaches.

	Page 9
1	I would like to let you know that
2	there is a process in place, as well as a
3	great partnership with NOAA and the state, for
4	identification of that marine debris, from
5	aerial surveys as well as from the shipping
6	industry.
7	And actually what we're doing now,
8	is we're actually - when that is found, NOAA
9	is notified, and then NOAA actually does
10	notify the Coast Guard, and the Coast Guard
11	will actually put out a local Notice to
12	Mariners, or actually they'll give a position
13	of marine debris that is found over weather
14	radio as well. So, mariners are being made
15	aware of these debris. Keep an eye out for
16	them. Do avoid them to maintain safe
17	navigation.
18	So, as we move out here into the
19	rest of Alaska as I like to call it, one of
20	the major areas that does see a large amount
21	of shipping traffic is Unimak Pass. Unimak
22	Pass is a part of the Great Circle route from

1	
	Page 10
1	western United States to Asia. And this is
2	actually a booming area due to the fact that
3	it is, I don't want to call it narrow, I would
4	call it quite a bit of a bottleneck.
5	But, if you think about it,
6	there's only one port in this area, that's
7	Dutch Harbor. And this port has actually been
8	named as a port of refuge for stricken or
9	disabled vessels.
10	And it seems like, you know, every
11	December we kind of get a little bit of a
12	situation, where we have a vessel lose
13	steering, lose propulsion, and generally, for
14	some reason, I don't know why, Adak is where
15	this always happens. This, Adak, is right
16	here.
17	To give you an idea of distance,
18	that's 380 nautical miles. A lot of the
19	response that actually comes to - for towing
20	vessels to come in response to those disabled
21	vessels comes from Seattle. As you can
22	imagine, a vessel that is 20 miles off shore,

	Page 11
1	drifting at two knots, you got 10 hours.
2	Seattle is greater than 10 hours away. So,
3	it's one of those areas that - it's of great
4	concern.
5	Resources are not in place in
6	Dutch Harbor, and we are making - taking the
7	efforts to get them in place, to have mooring
8	buoys in those areas due to the fact that
9	there just is not enough pier space to even
10	put a ship, even once it is recovered by a
11	towing vessel.
12	So, moving north, we do have our
13	Bristol Bay fishery, as well as Norton Sound.
14	So, another thing that I wanted to point out
15	here is the Bering Strait. We had Commander
16	Houck yesterday come and give us the talk on
17	the PARS study.
18	And it's - the Bering Strait is
19	over - is referred to over and over again as
20	this choke point. I want to kind of put that
21	in perspective. This choke point that
22	everyone is referring to, on the US side

Page 121alone, between Little Diomede and Cape Prince2of Wales - actually, I know that's really hard3to see, but just to let you know, that is 104nautical miles across.5The area in Prince William Sound,6some of those - most of Prince William Sound,7much, much narrower than that, and does see a8higher volume of traffic than what is seen in9the Bering Strait.10Is that going to increase? I11don't know. I wish I had the ESP to make that12judgment, but we don't know. NOAA is13definitely taking the steps to prepare for14that, and I think that's very evident in the15So, as we move north, we also have18the Chukchi and Beaufort Seas. So currently,19and my chart plotter just failed. So, it's20coming back up. Anyway, so in Beaufort, it is21with me.		
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	22	with me.

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1	So, in Beaufort, you have Prudhoe
2	Bay. And there's a - the pipeline that I was
3	talking about that runs into Valdez, starts
4	out in Prudhoe Bay. And it's - we fuel a ship
5	from up here, down to here, and export it from
6	there.
7	So, there's this idea that with
8	oil and gas doing a large amount of drilling
9	and exploration in the Chukchi Sea, that there
10	is going to be a lot of vessel traffic, and
11	it's - it's going to be more of a support
12	traffic that's going to be present in that
13	area.
14	The oil and gas - the
15	conversations that I've had with them, their
16	idea right now is to actually put a subsea
17	pipeline, run it over here to Wainwright, and
18	then do a cross-North Slope pipeline, and put
19	a spur into the Trans-Alaska pipeline. And
20	from there, pump it to Valdez and then export
21	it.
22	So, I just wanted to really just

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1	give you the broad overview of what the
2	shipping and economic realities are here in
3	Alaska, and kind of hopefully better inform
4	you to maybe make some recommendations to NOAA
5	leadership. So, I'm actually available for
6	questions.
7	CHAIR WELLSLAGER: That was very
8	interesting. Anybody else have anything they
9	would like to ask? Jeff?
10	MEMBER CAROTHERS: Jeff Carothers.
11	Yes, Matt, I'm just wondering that Shell next
12	door here, doing that drilling bit, isn't
13	there some way to - I know in a lot of places
14	the oil companies will provide funding for
15	different I mean, in California, they had
16	to build a school in one spot to bring a
17	pipeline ashore.
18	So, there's - is NOAA - I assume
19	NOAA or Corps of Engineers, somebody is
20	working with Shell and ConocoPhillips about
21	providing some funding for some of their
22	stuff.

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1	LT. FORNEY: So, yes, we're
2	definitely having communications with Shell
3	about where their interests are, as well as
4	where their operations are going to be based
5	out of. And I guess I should back up here and
6	state that Shell is still in the exploration
7	process. They don't know if this is going to
8	be a profitable venture for them or not.
9	They're purely in an exploration
10	state, and they think there's a lot of stuff
11	there. And if there is, we're definitely
12	going to, you know, NOAA will be - where the
13	ships are moving, we will be the, you know,
14	there looking into producing some good
15	hydrographic support.
16	MEMBER CAROTHERS: And you need to
17	make sure you knock on the door and get some
18	money.
19	CHAIR WELLSLAGER: Interestingly
20	enough, seeing something like this could
21	actually be used to help with the geospatial
22	side of matters in Alaska, because if

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1	Shell/Conoco does something, if pipelines are
2	made, or added, or modified, you have power.
3	At the junction points, you're
4	obviously going to have to have internet
5	connection. These could be places where you
б	might establish a reference station that could
7	supply geodetic information, and help create
8	the network, not necessarily densify it, but
9	just have a location where you could input a
10	spot, where prior to that, you did not have
11	any type of a connection or geodetic control
12	location that you could build from off that.
13	LT. FORNEY: So the densest
14	location of our geodetic controls, run from
15	the Aleutian Islands east, along the plate
16	boundary, down into southeast, and from Valdez
17	up to Prudhoe. And that is where we have our
18	road, pipeline, and then of course the plate
19	boundary observations that are occurring.
20	CHAIR WELLSLAGER: Okay, Michelle?
21	MS. RIDGWAY: Can you hear me?
22	CHAIR WELLSLAGER: No.

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1	MS. RIDGWAY: Michelle Ridgway.
2	Yes, Matt, I was wondering whether you
3	currently have, or what the status of
4	bathymetry is in Lease Sale 193, where we may
5	see some potential drilling this year. And
6	for those of you not familiar with that
7	region, Lease Sale Area 193 is basically a
8	triangle up here, and there's Chukchi. Maybe
9	Matt can point it out.
10	Do we currently have data for that
11	area, or is the industry providing data that
12	NOAA charting is actually incorporating into
13	survey data?
14	LT. FORNEY: So, NOAA has not
15	conducted a survey in that area. The surveys
16	that have been conducted in those areas, we
17	can definitely zoom right on in and see what
18	data is available.
19	There is data on the chart. That
20	data is from either a Russian or a British
21	admiralty survey. This area has not been
22	surveyed by NOAA. As Molly referred to

	Page 18
1	yesterday, there is the MOU that is in place
2	between Shell and NOAA, and that basically was
3	the language to say we'll definitely share
4	data.
5	But then, as she was saying, the
б	challenge is definitely in the details, and
7	that is where there are the Annexes 1, 2, and
8	3. And the hydrographic side of things does
9	live in Annex 3. And once that is approved
10	and signed, we will see what Shell does, or I
11	should say Shell/Conoco and Statoil do have
12	the data, and we'll definitely get that.
13	VICE CHAIR PERKINS: Matt, is
14	there a line of communication with the Navy,
15	or a way to get the Navy data collected in
16	that area declassified and into the chart
17	program?
18	LT. FORNEY: That is a good
19	question. Navy is - I'm trying to think of
20	the best way to put this. So, Alaska, if you
21	look at a picture of where the Navy assets are
22	port-wise, Alaska is not on that map.

	Page 19
1	And Navy, they definitely do
2	operate vessels in the region. The only
3	vessel that I know that is going to be making
4	a port call in Alaska is the USS Anchorage,
5	and that's going to be occurring in May of
6	2013 when that vessel is commissioned here in
7	its namesake.
8	So, Navy is here. Navy does do
9	work here. The contact is not there. That
10	effort is being made. If the Admiral has a
11	contact, I'd love to tap in and, you know, get
12	the - meet someone, so.
13	MR. MAYER: The Navy had, for the
14	last about 10 years, a program of
15	declassifying the submarine-derived data, and
16	we get that data regularly through the Arctic
17	Submarine Research Lab in San Diego, and that
18	data, it goes through a process at NGA, and
19	then Arctic Submarine Lab, and then to us in
20	a cleansed way. And that data has all be
21	incorporated into the IBCAO chart that I'll
22	show in a minute.

Page 20 CAPT. LOWELL: Just to add a 1 2 little bit more onto that, is NOAA, our Coast Survey, has a very good relationship with the 3 4 Navy, and the arrangement pretty much is at a 5 high level, is if they collect bathymetric 6 data in US territorial waters, or the US EEZ 7 areas, we have access to that data. 8 And unless it's for some other 9 reason classified, it is all provided to NOAA, 10 to NGDC Coast Survey for application to the chart. So, there's no mysterious - well, 11 12 there may be some mysterious Navy data, I don't know, but I don't think so. Thank you. 13 14 CHAIR WELLSLAGER: Okay, actually, we're going to need to cut this off real 15 16 quick, because we have one more presentation, and it's getting a guarter til, so - but, 17 18 Lawson, you had one thing you wanted to say? 19 No, I was just MEMBER BRIGHAM: 20 going to add that about 15 years ago, it was 21 the Arctic Research Commission which kicked 22 off this process. It all happens in

	Page 21
1	Washington, and Matt doesn't feel any of this
2	stuff. It's all bureaucratic in Washington
3	among all the agencies, and well orchestrated.
4	The latest data is not more than a year old,
5	and this is all data from nuclear submarines
6	in the Arctic.
7	CHAIR WELLSLAGER: Thank you,
8	Matt. That was very good, interesting.
9	(Applause)
10	CHAIR WELLSLAGER: Okay, Larry and
11	Michelle Ridgway, a marine ecologist from
12	Oceanus Alaska, would like to take us on a
13	brief tour of multibeam mapping efforts in
14	Alaska, showing highlights from research
15	surveys, Law of the Sea, and the newest
16	version of IBCAO, the Arctic sea floor map.
17	So, let's take a virtual trip through the
18	Arctic Ocean - Arctic Sea - Ocean.
19	MS. RIDGWAY: Great. So, while
20	we're getting set up, very briefly, this is a
21	great transition from Matt's introduction to
22	the overall geography of Alaska, because Larry

	Page 22
1	and I are going to now take you down
2	underwater, and take a look at, first,
3	starting in the southern part of the state.
4	We'll start in a moment in the
5	Gulf of Alaska, and work our way up through
6	the Aleutian trench, up to the Arctic,
7	highlighting some recent advances in mapping
8	that benefit not only navigation, but also
9	many, many sciences, geological sciences and
10	biological sciences here.
11	So, Larry is first going to talk
12	to you about sort of the overall state of
13	mapping over the last several years.
14	MR. MAYER: Okay, just to put
15	things into context, I thought I'd throw up
16	the very first map of the Arctic as an ocean.
17	Until this time, everybody thought there were
18	giant land masses under the, what we know as
19	the Arctic Ocean now. And it was quite
20	amazing, based on Nansen, on the drift of his
21	Fram, the vessel he locked into the ice.
22	And what's most amazing, is that

Page 231all he did - all he had was nine soundings.2You can see these nine soundings. And from3that, somehow concluded that the Arctic Ocean4was a big basin. It's really quite amazing.5Well, since that time, there's6been mostly individual discrete measurements,7and the submarine data, which again, over the8years, has been declassified slowly, usually9eight or ten years behind, but they're quite10steadily doing that.11And this led to what's really the12iconic map of the Arctic, the IBCAO chart,13which was a product of Mark Jacobson of the14University of Stockholm, and then he was a15post-doc at our lab.16The latest version until what I'm17going to show you today, being a 2008 version.18Now, this was based almost only on the19submarine data, and individual soundings,20either from ice stations, ice islands,21helicopter flights, and it probably had about2264,000 soundings in the entire Arctic Ocean.		
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	22	64,000 soundings in the entire Arctic Ocean.

	Page 24
1	Martin is a phenomenal artist, and
2	created a beautiful, beautiful picture. And
3	that actually does us a disservice sometimes,
4	because you look at this and you say, "Oh,
5	well, we know what the Arctic looks like."
6	And as we've gone out in the last
7	few years, and started to map, and this is no
8	discredit to Martin, it's just very sparse
9	data, we found that there are lots of
10	inaccuracies in this.
11	And what's happened since that
12	time, at that point, that represented about
13	six percent of the Arctic. This is now the
14	Law of the Sea based mapping from the Healy
15	with multibeam since 2003, and you can see the
16	coverage.
17	And there's been a few other
18	cruises. There's been some Japanese cruises
19	now. The Koreans are coming up - Japanese,
20	with multibeam. And the Russians finally,
21	last year, and the year before, started major
22	multibeam mapping programs.

	Page 25
1	So, since that time, the IBCAO
2	project, which is the project that accumulates
3	all this data, has had very good relations,
4	has had all that data entered into it. The
5	red is the Healy data. You see it's dominated
6	by that. You also see something we mentioned
7	yesterday, the crowdsourcing around Iceland,
8	Greenland.
9	The fishermen collected a
10	tremendous amount of data. And I was very
11	suspicious of this at first, but it is a
12	tremendous asset in places where you have no
13	other information. So, that's gone in.
14	And the other thing I want to
15	point out, and this is really a sad thing, and
16	Captain Lowell can attest to the fact, that we
17	sat in St. Petersburg, and were promised that
18	the Russians would contribute their data to
19	the IBCAO project, but, if you see, that one
20	side of the Arctic is completely white.
21	The Russians have not at all
22	followed through. Despite the fact they're

	Page 26
1	collecting good data, they're not contributing
2	it to the IBCAO project.
3	And so, there's the new IBCAO, and
4	I'll let Michelle take over, and we'll
5	basically fly through that in a - well, we do
6	- I guess we just do it right now.
7	And we're going to start actually
8	outside of the IBCAO area, because Michelle
9	wanted to show some of the other areas here.
10	This is now the best dataset we have, global
11	dataset, outside of IBCAO, which is a product
12	called ETOPO 1.
13	It's a one mile gridded dataset,
14	and it gives you the general characteristics.
15	But, in places where we've collected multibeam
16	data, like the Gulf of Alaska, you'll see the
17	contrast is quite remarkable as I zoom in to
18	the much higher resolution data.
19	And the level of features you can
20	see now as we come, in terms of the channels,
21	the down flow processes, the fan building, and
22	we're now, just to give you an idea of depth,

	Page 27
1	we're now at - this is 2500 meters deep here
2	at the bottom. And we come along and start
3	seeing the tectonic and erosional features,
4	again, all these fans that are building out.
5	Here is from 2000 to 3000 meters,
6	a cascade, something we see subaerially at a
7	waterfall, but they're obviously very dense
8	waters coming from underneath the glaciers,
9	sediment-laden waters making a cascade, and
10	another one here with a plunge pool, a several
11	hundred meter deep plunge pool down at its
12	base, and this is at 3500 meters water depth.
13	So, really quite remarkable in what we can see
14	at this level of resolution, as opposed to the
15	overall - mostly satellite based in a sense,
16	datasets.
17	Michelle wanted me to show a
18	dataset, and I don't know who collected it, on
19	the Pribilof canyon area. And if we come out
20	there
21	MS. RIDGWAY: Larry's just showing
22	you some of the new multibeam along the plate
	L

	Page 28
1	boundary in southeast Alaska, that's sort of
2	outside of the Alexander Archipelago. There's
3	been quite a few surveys subsequent to that,
4	multibeam, and some new vessels that Tommy
5	Thompson and Fairweather and Rainier have been
б	retooled with multibeam, have been doing
7	multibeam in shallower areas. It provides
8	tremendous elucidation of geomorphological
9	features in southeast Alaska, that have
10	contributed to biological research
11	significantly.
12	Now, a lot of our southeast Alaska
13	rockfish population assessments are based upon
14	these habitat maps, where we have sufficient
15	rugosity, where we can extrapolate some of our
16	limited survey data. The multibeam is helping
17	quite a bit in managing some of those long-
18	lived habitat specific species.
19	It's also been very helpful for
20	finding submerged formerly inhabited sites
21	along southeast, that have been part of the
22	early human migrations to North America.

	Page 29
1	MR. MAYER: So, you get the
2	contrast here now, that before, what we - the
3	kind of resolution that we had before, with
4	what we have now. It's really quite -
5	MS. RIDGWAY: So, now Larry's gone
6	all the way across the Aleutian basin, which
7	is the southern half of the Bering Sea, and
8	has gone up to the Beringian margin, which is
9	the sloping feature you see here, the
10	continental margin. And now he's going to
11	show off some of the most amazing multibeam in
12	this region.
13	MR. MAYER: From a Law of the Sea
14	perspective, having this resolution has
15	tremendous ramifications, because the Law of
16	the Sea involves natural prolongation. And
17	so, if we had just the dataset before, we'd
18	have to put the edge of the slope somewhere
19	out there, but with this new detail, we can
20	now - each one of these prolongations becomes
21	part of the extension of the continental
22	margins. So, this new level of resolution is

1 quite critical. 2 And then finally into the Arctic and the new IBCAO dataset itself, start here 3 in the Bering Strait. The area we focused 4 5 most of our work on is Chukchi. This new 6 IBCAO has all the new multibeam data, both 7 Japanese, Healy, all incorporated into it. 8 And you can see the differences in 9 places where it's a little more detailed, is where the multibeam data has been 10 incorporated. And where it looks beautiful 11 12 and smooth and flat, is - we just don't know 13 anything. 14 So, this is Northwind Ridge, Chukchi plateau, a whole series of sea mounts 15 16 that were discovered during our surveying, all 17 these areas out here which are extending our 18 continental margin tremendously, a feature we 19 call Healy sea mount discovered in 2003. This 20 was just a flat area before. And our 21 continental margin is now extending 22 tremendously in this direction.

Page 31 Here again, right here is a place 1 2 where you can see the difference between the 3 multibeam, where we have the multibeam data, and the pre-multibeam data, where we still 4 5 have sparse measurements in here. MS. RIDGWAY: In this region, you 6 7 can see Point Barrow. Maybe you can show them 8 as a point of reference, right here, Point Barrow, and then off of Point Barrow is this 9 tremendous feature, Barrow Canyon. 10 11 Barrow Canyon is an area where 12 marine waters are advected up right toward Point Barrow, and are responsible for 13 14 concentrating a lot of the food that feeds the 15 whales that are aggregated at Point Barrow, that supports the Eskimo communities' hunting 16 17 activities, and an entire ecosystem is 18 intimately connected to Barrow Canyon. 19 This is a region where this coming 20 summer, the Fairweather is going to be 21 transiting in this area, doing multibeam work 22 as well as some in situ work. We'll be

	Page 32
1	deploying an ROV, and taking samples in this
2	region. And this is the North American
3	continental margin.
4	This slope is virtually
5	unexplored, but this new multibeam data is
6	tremendously helpful to identify areas where
7	methane hydrate may be exposed, other
8	geological features that dictate what the
9	biological community may also be like. So,
10	we're really looking forward to taking a look
11	with the ROVs, and hopefully later
12	submersibles, into this region that's now been
13	mapped.
14	MR. MAYER: I've just thrown on
15	the international boundaries. This is the
16	negotiated, but not yet settled, Russian/US
17	boundary line, and then the 200 nautical mile
18	EEZ coming around this way. If we take off
19	this one, that's the Canadian recognition of
20	the end of the EEZ, and then the US
21	recognition here.
22	So, we have quite a large disputed

	Page 33
1	zone between the US and Canada, before we even
2	get to the extended continental shelf still in
3	the EEZ.
4	CHAIR WELLSLAGER: Wow, that's
5	really something else. It's a lot of work,
6	and it's very useful to see what needs still
7	to be done, but what has been done, and the
8	decisions that could be made using good data.
9	Are there any questions? Jeff, go ahead.
10	MEMBER CAROTHERS: Jeff Carothers.
11	I was just wanting to know, on the new
12	extensions, is there an agreed upon water
13	depth of the - where, you know, the boundary
14	lines are?
15	MR. MAYER: For the extended
16	continental shelf. The extended continental
17	shelf, it's really not tied into a water
18	depth, it's tied into a morphological feature,
19	and that's the foot of the slope. And that's
20	why, where the foot of the slope is, is very
21	clear along here.
22	And before we started this

	Page 34
1	project, everybody assumed the foot of the
2	slope of Chukchi came along this way. What
3	we're now finding, is that the foot of the
4	slope comes all the way along here. It's a
5	morphological break.
6	And so, that's why, based on this
7	mapping, there's been a huge extension of
8	hundreds and hundreds of kilometers of the US
9	extended continental shelf. So, it's tied
10	into the morphology, not a particular water
11	depth.
12	MR. CUSICK: Joel Cusick, National
13	Park Service. Approximately what percentage
14	of the Beringian area, where the ancient
15	persons were supposed to travel across, how -
16	what percentage of the sea bottom is known to
17	a level of detail that we can pull information
18	from?
19	MR. MAYER: Our approach to the
20	mapping, the Law of the Sea mapping, was
21	basically one driven by the demands of the
22	morphological requirements of the law, and so,

Page 351we were very constrained. And you're looking2right there at the area of the Beringian3Margin that was mapped. That's it.4It's a complicated set of formulae5that allow you to establish the foot of the6shelf, and so we backed that out and said,7"Where did we have to map?" And this was8being funding by the State Department, not a9science agency.10And so, we basically had to stick11to that. I would have loved to have mapped it13portion that's been mapped there.14CHAIR WELLSLAGER: Okay,15unfortunately we're limited by time, so I16would like to thank both of the presentations.17(Applause)18CHAIR WELLSLAGER: Moving on, we19have the stakeholder breakout sessions, and20212223242424	1	
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-	20	there will be four again. The Alaska baseline
22 data will still meet here in the Aleutian	21	data collection requirements for NOAA's nav
	22	data will still meet here in the Aleutian

1	
	Page 36
1	Room. Arctic emerging priorities will be
2	downstairs in Cook Inlet. The Alaska
3	geospatial framework will be in the Prince
4	William Room. And the Alaska tides and
5	currents will be in the Lupine Room.
6	There are sign up sheets. And
7	when we get in there, we're going to pass
8	sheets around, so that everybody can at least
9	put their name, and we can have name and your
10	affiliation, that we can then incorporate into
11	the minutes. This will last for about two
12	hours.
13	And around 11:00, we would like
14	for the breakouts to organize what you've been
15	able to brainstorm into recommendations.
16	We'll break for lunch, and then we'll debrief
17	the HSRP panel from 1 to 2. So, let's go to
18	our respective rooms, and - I'm sorry, Cathy?
19	MS. WATSON: Matt, I guess maybe
20	we should - there should be staff kind of
21	helping note taking. If you could ask who
22	would be willing to, for the four breakouts.

1CHAIR WELLSLAGER: Would any NOAA2staff like to help do the note taking? Capt.3Glang, Capt. Lowell and Kathy and Mr. Forney.4Yes, thank you.5MS. WATSON: Okay, for the6navigation, it's this one here, the Aleutian.7For the Arctic emerging, it's the Cook Inlet8Room. Geospatial is the Prince William Room,9and tides and currents is the Lupine. And10those rooms are down on the first floor, and11kind of around to the left.12CHAIR WELLSLAGER: Okay, let's do13it.14(Whereupon, above-entitled matter15went off the record at 9:00 a.m.,16and resumed at 12:59 p.m.)1718192021A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N		Page 37
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22 A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N	21	
	22	A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

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Page 38 1 12:59 p.m. 2 CHAIR WELLSLAGER: Okay, welcome back after lunch. It is time to hear what 3 each of our stakeholder debriefs came up with 4 5 as recommendations. I'm sure it was an interesting exchange of thoughts, provoking 6 7 arguments, who knows what. 8 But, what I would like to do is 9 have a representative from each of the panels 10 talk, and - where did Joel go? Why don't we start with the Alaska geospatial. So, Joel? 11 12 MR. CUSICK: Thank you, Matt. I'm Joel Cusick, National Parks Service. 13 I'm a 14 GIS specialist. I was in the geospatial framework committee, had a great time. 15 And again, thank you for letting us voice our 16 recommendations to all of you. It's a great 17 honor to be in this room with the NOAA 18 19 players. 20 Number one I think for our 21 recommendation, was hiring a civil servant to 22 serve as the state geodetic advisor. We want

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1	that advisor stationed here in Alaska, to
2	facilitate partnerships among the feds,
3	university, and private and native
4	stakeholders.
5	We'd like NOAA to make funding
6	available for the modernization of the Alaska
7	shoreline, specifically representing the mean
8	high water line, the boundary in many cases
9	in this state, between state tidelands and
10	federal uplands.
11	Expeditiously finish GRAV-D.
12	Incorporate the use of GNSS, namely the
13	Russian GLONASS system, into continually -
14	into the CORS network, and online position
15	user service or OPUS.
16	Number five, modernize, continue
17	to modernize and densify the CORS network in
18	Alaska. It serves as the backbone for 99
19	percent of what we're talking about.
20	CHAIR WELLSLAGER: No, these are
21	not actually in a priority ranking. These
22	were just ones that we came up with as we were

	Page 40
1	doing the discussion. But, what I would like
2	to do, is we have 15 minutes per, and we've
3	got about 10 minutes for discussion.
4	So, let's open it up to the panel
5	now, and let's talk about what we have with
б	this set of recommendations, and how we should
7	go about formulating this into something we
8	can do in a letter. David?
9	MEMBER JAY: What I see there - is
10	the first item a state item and the rest are
11	federal? Is that correct?
12	CHAIR WELLSLAGER: No, actually
13	the state geodetic advisor is an employee of
14	the National Geodetic Survey, and it would be
15	a representative there to work as an outreach
16	program for other users within the state
17	interested in geodetic information, data, and
18	can serve as an outreach.
19	MEMBER JAY: Did you envision any
20	state input, as far as money, into any of
21	this?
22	MR. CUSICK: State input?

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	Page 41
1	MEMBER JAY: Yes.
2	MR. CUSICK: Yes.
3	MEMBER JAY: I mean, as far as
4	money. This all seems to be, you know, a to
5	do list for the federal government.
6	CHAIR WELLSLAGER: Juliana?
7	MS. BLACKWELL: David, and to the
8	rest of the panel, just a quick update on the
9	state advisor program as it's run by the
10	National Geodetic Survey. Currently, the
11	program is a co-sponsored entity in which
12	states that are interested sign agreements
13	with the National Geodetic Survey through NOS,
14	and cost share for the hiring of a federal
15	civil servant to serve as a geodetic surveyor.
16	We have approximately 22 of those
17	positions. And over the last couple of years,
18	we've had some challenges with continuing to
19	cost share in those agreements, just because
20	of budgetary issues, et cetera.
21	The National Geodetic Survey, over
22	the past two years, has studied the program,

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1	and has committed to advancing the state
2	advisor program into a regional advisor
3	effort, so that we're able to cover all states
4	with a geodetic advisor.
5	So, in some cases, it may be that
6	there's less focus on a state, but the idea is
7	that from a federal perspective, having a
8	point of contact for every state to have at
9	their fingertips for geodetic advice, and that
10	involves shoreline mapping too, I think is a
11	better use of the federal funds.
12	So, NGS is moving forward into a
13	regional advisor program, which we expect to
14	have implemented by 2017. But, realizing that
15	the state of Texas - I'm sorry, the state of
16	Alaska, which is bigger than many of the
17	states such as Texas, which are currently
18	served by two advisors, really does - is at a
19	disadvantage, and we do realize that there is
20	a great need for an advisor here in Alaska.
21	So, while we transition, we
22	realize that the state advisor program is

	Page 43
1	changing. It is an NGS supported and funded
2	position, that we would be asked to put here,
3	located in this state.
4	And just for the knowledge of the
5	panel, some of the other advisor positions
6	advise more than one state. We currently have
7	an advisor that serves both Montana and Idaho,
8	and those are pretty big territories to cover
9	as well.
10	But, I think what the - they want
11	to make sure - the group wanted to make sure
12	that the state advisor for Alaska was actually
13	physically located within the state itself,
14	and focused on state/region of Alaska/Arctic.
15	MEMBER JAY: Thank you. But, I
16	guess my point here is, what we've been
17	hearing consistently is the needs of the state
18	are so outsized relative to the federal
19	resources, and I don't see how this can be
20	accomplished by the federal government acting
21	alone. I think the state needs to take a very
22	active role in this, and it's sad that they're

	Page 44
1	not here today, by and large.
2	CHAIR WELLSLAGER: I lost that
3	last bit of input, David, what did you say?
4	MEMBER JAY: Well, that I think -
5	what we keep hearing is how outsized the need
6	in Alaska is, and how limited federal
7	resources are, and how limited they are going
8	to continue to be for several years certainly,
9	given the economic climate. And there, sadly,
10	is no real state representative.
11	I mean, I'd like to see the state
12	step up and say, "Yes, we can do some of
13	this," or, "We want to partner with you."
14	What I'm hearing, you know, is mostly, "Well,
15	we want the federal government to do this."
16	And, you know, that's somewhat appropriate,
17	but I think there has to be a partnership.
18	MS. BLACKWELL: Juliana Blackwell,
19	again. I would just say, David, we've always
20	encouraged a state coordinator, a state-
21	funded, a state employee coordinator, to work
22	with the National Geodetic Survey, and will

continue to do so. 1 2 But, these are recommendations 3 that were formed from the group to NOAA, so 4 it's just, you know - I personally hear what 5 you're saying, and just want to make the panel aware that we would love to work with 6 7 identified contacts within any state to help 8 coordinate the use, and needs for, geodetic 9 control. But, this, you know, again, from 10 an NGS perspective, we're moving away from 11 12 this cost-share program, which we don't have one in place here in Alaska, but realize that 13 14 there is a great need for a geodetic advisor servicing this area, and/or a state-based, or 15 16 a state funded geodetic coordinator, which 17 again, if that were to come up to NGS, we 18 would more than happy to work with that 19 individual as well. 20 CHAIR WELLSLAGER: And I might 21 also add onto that, David, in some states, 22 there are geodetic surveys or Departments of

Page 46 Transportation that have someone who could 1 2 facilitate something like that. The state of South Carolina, we actually have two people, 3 I being one of the two, and the fellow who is 4 5 chief of field operations, work together as the geodetic advisor. 6 7 So, when situations like that 8 occur, we definitely take the lead and run 9 with that. And that's not to say someone in 10 Alaska won't stand up to do that, but in the event that they don't, we would like to see 11 12 this, which is part of the NGS program, be facilitated here in the state, because it is 13 14 one of the hats that Matt Forney is wearing right now, among 10 others, and it should be 15 16 something that is a permanent fixture here in 17 the state, and stays in the state, and works 18 with the user community. 19 MEMBER JAY: I don't disagree with 20 any of that, but I just think that the need is so outsized here in Alaska, that unusual

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arrangements are needed, and there's going to

	Page 47
1	have to be some sort of partnership between
2	private enterprise, the state, and the federal
3	government.
4	CHAIR WELLSLAGER: Admiral?
5	MEMBER BARBOR: When I look at the
б	list, I mean, they're all very reasonable in
7	the light, and what I guess I'm trying to
8	gauge is, if we as a panel said, "Yes,
9	incorporate that," and put the full weight of
10	this panel behind it, what happens? Because
11	they're all common sense.
12	I'm assuming that, yes, you need
13	to densify the CORS network on 5, but that's
14	not a small issue here, and it's a hugely
15	financial issue.
16	Number 4 seems much easier to do.
17	I'm assuming that, what, there's an old GPS
18	system, and you want to get GNSS on upgraded
19	receivers. You know, that is probably a
20	little more manageable and doable, and
21	expeditiously is an interesting word. You
22	said you've got it in your game plan. Does

	Page 48
1	this recommendation change your game plan?
2	CHAIR WELLSLAGER: Michele?
3	MEMBER DIONNE: Michele Dionne.
4	So, slightly tongue-in-cheek, but now that our
5	wartime commitments in the Middle East are
6	winding down, maybe it's time for NOAA to
7	declare war on the climate, and slip into that
8	military industrial complex, you know, feedbag
9	somehow.
10	CHAIR WELLSLAGER: Say that again.
11	MEMBER DIONNE: Well, if NOAA were
12	sort of to appropriate, of all the government
13	agencies, you know, dealing with climate
14	change, and call it a war, you might get some
15	- that might be an angle for getting some
16	funds. I don't know. Certainly it's going to
17	be as costly - it has the potential to be as
18	costly to the US taxpayer as the other wars
19	we've been funding for forever. So, just a
20	little
21	CHAIR WELLSLAGER: Well,
22	interestingly enough, and to follow along that

	Page 49
1	same tack if you will, densification of the
2	CORS network could help do similar things like
3	that, because the CORS receivers can be used
4	to determine measurable humidity, or
5	precipitation, or air mass movements and
6	things, and you can use it as a predicting
7	tool, and figure out when you've got storm
8	fronts coming in and such.
9	So, we could tap into the National
10	Weather Service, and have them put 60 stations
11	here in Alaska, and, you know, work with it
12	that way. How's that?
13	MEMBER DIONNE: I do think that
14	the potential costs to the American taxpayer
15	are going to be ultimately very, very large,
16	that, you know, in terms of climate change
17	drivers, and the sooner the agencies get on
18	board with that, the more money we're going to
19	save.
20	CHAIR WELLSLAGER: Anybody else?
21	I'm sorry, Gary?
22	MEMBER JEFFRESS: I believe the
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	Page 50
1	shoreline mapping recommendation is already
2	part of our five most wanted, just to
3	reinforce that. And it's not just an Alaska
4	problem, Texas has the same problem, so does
5	Louisiana, rapidly changing shorelines that
б	aren't up to date on the coastal mapping.
7	CHAIR WELLSLAGER: And this is
8	actually good in the fact that this is Alaska
9	we're talking about it, but we're actually
10	seeing this as a national problem, so when
11	this goes to the Administrator, she can say,
12	"Okay, this is something that really has
13	national impact, and needs to be
14	accomplished." Good point.
15	MEMBER DIONNE: I think you all
16	know the statistic that half of America lives
17	within, what, 50 miles of the shoreline or
18	something like that.
19	MR. CUSICK: As an Alaskan, I'd
20	like to make a comment, how many of the lower
21	48 shorelines have 1920s shoreline? Many of
22	our charts are that out of date.

Page 51 CHAIR WELLSLAGER: Okay, Joel, 1 2 thank you. MR. CUSICK: Thanks for the 3 4 opportunity. 5 CHAIR WELLSLAGER: Tides and Currents. Oh, yes, Kathy? 6 MS. WATSON: Oh, Matt, I'm sorry. 7 8 Could we ask the navigation data collection to 9 go first? Because we got some users that have 10 to leave early today. CHAIR WELLSLAGER: Could we what? 11 12 MS. WATSON: The navigation data collection, could they report next? 13 14 CHAIR WELLSLAGER: Tides and 15 Currents. Oh, yes, Kathy? 16 MS. WATSON: Oh, Matt, I'm sorry. 17 Could we ask the navigation data collection to 18 go first? Because we got some users that have 19 to leave early today. 20 CHAIR WELLSLAGER: Could we what? 21 MS. WATSON: The navigation data 22 collection, could they report next?

Page 52 1 CHAIR WELLSLAGER: Okay. 2 Navigation, please? 3 CAPT. LOWELL: Yes, this is John 4 Lowell. Just a cautionary note to the panel, 5 and I know you've heard this before, but we 6 need to be careful that we don't create 7 laundry lists of activities that we're going 8 to send Dr. Lubchenco, who will really not 9 want to engage at that level, especially when 10 you get down to the weeds. 11 And so when you talk about what 12 the problem is, especially if you can combine 13 some of these kind of things and I'll just 14 take the top bullet there that came out, is 15 maybe we shouldn't come to the recommendation 16 with a solution, which is really what happened 17 there, since we said "Hire a civil servant to 18 serve this purpose." 19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what 22 is the problem? Is it just better		
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<pre>13 some of these kind of things and I'll just 14 take the top bullet there that came out, is 15 maybe we shouldn't come to the recommendation 16 with a solution, which is really what happened 17 there, since we said "Hire a civil servant to 18 serve this purpose." 19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what</pre>	11	And so when you talk about what
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<pre>16 with a solution, which is really what happened 17 there, since we said "Hire a civil servant to 18 serve this purpose." 19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what</pre>	14	take the top bullet there that came out, is
<pre>17 there, since we said "Hire a civil servant to 18 serve this purpose." 19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what</pre>	15	maybe we shouldn't come to the recommendation
<pre>18 serve this purpose." 19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what</pre>	16	with a solution, which is really what happened
19 That's a solution. That's not a 20 recommendation. So did we define what the 21 problem was? Do we have a you know, what	17	there, since we said "Hire a civil servant to
20 recommendation. So did we define what the 21 problem was? Do we have a you know, what	18	serve this purpose."
21 problem was? Do we have a you know, what	19	That's a solution. That's not a
	20	recommendation. So did we define what the
22 is the problem? Is it just better	21	problem was? Do we have a you know, what
	22	is the problem? Is it just better

	Page 53
1	coordination? I'm not clear what the problem
2	was there, but those are the kind of things
3	that we want to see coming out of the FACA, a
4	better understanding of what the problem is.
5	And then, on the assumption that
б	we just can't be delivering these laundry
7	lists of solutions to the head of NOAA, what
8	is it that you want to, as a FACA, to really
9	focus in on, and can you take it to the level
10	where she can engage with it? If she comes up
11	with extra funds, could she apply it? Or
12	focus on new efficiencies, on the assumption
13	that we're not going to get big budgets.
14	So that's just a cautionary tale
15	there. Thank you.
16	VICE CHAIR PERKINS: Okay, great.
17	We had a robust conversation, and the heading
18	here is Baseline Data Collection for
19	Navigation. You know, one of the solid themes
20	that kept coming up was the need for better
21	coordination.
22	So under that concept of, maybe,

	Page 54
1	map it once, use it many, U.S. Fish and
2	Wildlife was at the table with us. And we
3	came to a realization that they have a 65 foot
4	boat on the water. You know, if we can do a
5	better job of understanding what assets are
6	really available, then maybe we can do some
7	force multiplying and better leverage that,
8	which led us to the recommendation of "We need
9	a Geographic Information Officer or a
10	Geospatial Czar that can help coordinate those
11	type of activities."
12	So that was the recommendation,
13	something similar to the concept of IOCM. If
14	we know what boats are on the water, if we can
15	get sensors on those boats, if we can
16	understand who's doing what, where, maybe we
17	can serve multi-mission purposes.
18	Part of what would drive that is,
19	how can we get the users involved with the
20	baseline data collection? You know, the
21	possibility of using crowdsourcing, open-
22	sourcing. If we need better data at a

	Page 55
1	particular river harbor where the barge is
2	having trouble delivering the oil, and there's
3	fishing vessels going in and out of there, and
4	there's subsistence fishing taking place
5	there, can we begin collecting data at the
6	population level, by the actual users?
7	And if that data is maybe it's
8	not fit for maybe it's referential data,
9	not absolute data. But it might be data
10	that's fit for use, and that data might be
11	able to use multi-use applications. You know,
12	so looking at that, how successful open street
13	network has been for collecting street data,
14	globally, by the users, in an open consortium-
15	type fashion, how can we do that on the water
16	side?
17	So that's a recommendation to look
18	for new standards that would embrace
19	collecting data that's fit for use, that can
20	go into the system.
21	And then looking at, where do we
22	need to spend the money? You know, kind of a

	Page 56
1	Pareto approach of 80/20. You know, what do
2	we have? What do the users really need,
3	either geographically or by type of data? And
4	one of the things that came up was shoreline.
5	You know, soundings are important,
6	but if you don't know where the shoreline is
7	you can't navigate in that near land/shore
8	interface. So it's encouraging to see
9	shoreline came up in the prior group as well.
10	So those were it. We tried to
11	keep it short, keep it succinct, to three
12	things. And so that is what we have put
13	forward.
14	Yes, Joyce?
15	MEMBER MILLER: Scott, as part of
16	that better coordination, I just wanted to
17	point out, we also discussed the need if
18	users like National Park Service or U.S. Fish
19	and Wildlife are collecting data, the need in
20	the coordination side for somewhere that can
21	organize that data, not necessarily on a
22	national level, but on a regional level, where

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people can go and sort of have a data
clearinghouse.
And maybe that's a GIO-type person
or a Czar, but the point was that National
Park Service collects this data in the
peninsula, and nobody else can get to it. I
mean, they share it with their local users,
but other people can't get it.
VICE CHAIR PERKINS: Yes, the
geospatial one-stop concept. Maybe it takes
a State Geographic Information Officer to make
that work up here, because doing it on a
national level, we've proven that that's not
working terribly effectively.
Frank?
MEMBER KUDRNA: Our group hasn't
reported yet, but we had a similar discussion.
And AOOS, the regional association here in
Alaska, has that data charge, and they have
the ability to coordinate and make available
data that doesn't have the same standard
requirements of the many pieces of the federal

Page 58 1 government. 2 So we, on our side, had been encouraged looking at them, and that also 3 4 could take place in other parts of the 5 country, where there are other regional associations, as being a coordinating 6 7 mechanism for data to be available. And their 8 DMAC program has that as a charge already, and 9 they are doing a great deal of that. 10 VICE CHAIR PERKINS: Right. Thank 11 you. 12 CHAIR WELLSLAGER: Okay. Lawson, 13 would you like to go next? Or would that be 14 Gerd? 15 MEMBER BRIGHAM: As Gerd goes up 16 to the podium, we had a pretty robust 17 discussion, and the title is Emerging Arctic 18 Issues. Very broad, very eclectic. We didn't 19 necessarily come up with specific 20 recommendations, but perhaps some issues that 21 are important, emerging, key that we could 22 pass to the administrator.

	Page 59
1	We kept it a fairly broad
2	discussion, but it was pretty robust. I
3	facilitated. Gerd helped to keep the notes
4	and issues. So go ahead, please. Plenty of
5	stuff.
6	CAPT. GLANG: So as Lawson said,
7	we had a robust, and I'll throw in vigorous,
8	discussion. It was kind of a free-flowing
9	brainstorming session, and we tried to make
10	sure everyone had some input. So we came up
11	with 26 issues which this is the raw data,
12	which you could distill down. And all of
13	these, John, will be recommendations. They
14	sort of flow in a theme.
15	You know, we did an hour and 55
16	minutes of discussion, and then five minutes
17	of analysis, so in those five minutes there
18	were kind of two overarching themes. There
19	may have been some outlier ideas that don't
20	wrap in very well here, but I think we can
21	distill these into and we heard this from
22	the other working groups surveys and

Page 60 related data collection, and then I kind of 1 2 put in the more descriptive words "to do this in an efficient and innovative way," because 3 we want to take into account this concept of 4 5 crowdsourcing and partnerships, both trusted partnerships and unknown partnerships, and 6 7 then making the data available. 8 And I think, going back to Frank's 9 point on Scott's question about making the data available, and Frank brought up the AOOS, 10 it's my understanding AOOS doesn't deal with 11 12 geospatial data. So we want to make that distinction, and I asked in our working group 13 14 that we raise the issue of spatial data infrastructure, that we have some 15 consideration for how we make the data 16 discoverable and accessible. 17 18 And then the second overarching 19 theme that came out had to do with oil spill 20 prevention and response, and then associated 21 with that is the research theme of oil and 22 hazardous material spills in arctic and ice

Page 61 1 conditions, which I think has been identified 2 already as an area where research needs to be done. 3 So that's sort of, in a nutshell, 4 5 the takeaway. There were lots of other 6 associated ideas, but we'll leave that for you 7 to discover on your own. Some of these can be 8 lumped together quite nicely. We're open for discussion. 9 10 You didn't like 26 items, John? 11 (Laughter.) 12 CAPT. GLANG: This was a show all your work exercise, wasn't it? 13 14 (Laughter.) 15 CAPT. GLANG: Okay, if nothing 16 else, we'll --17 CHAIR WELLSLAGER: Captain Glang, 18 could you run it down to the very bottom, so 19 I can see the two overarching themes? 20 MEMBER DIONNE: If you teach a 21 course on how to collect geospatial data with 22 jet skis, I don't think you'll have any

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1 trouble with enrollments.

2	CAPT. GLANG: Actually, Michele,
3	you bring up a good point. We did touch on
4	training. Bob Pawlowski and some of the
5	others brought up both the training specific
6	to navigating in the Arctic and the ice
7	training, and then I think we started to touch
8	on some of the other training and jobs in
9	Alaska, and what kind of jobs would come out
10	of supporting the oil industry.
11	So there was a broad-ranging
12	discussion on training and jobs, and that was
13	very good. Some good ideas came out of that.
14	MEMBER DIONNE: Also, we talked
15	quite a bit about the training arm, a how to
16	train the trainer kind of thing, out of NOAA.
17	CAPT. GLANG: Yes, Joyce?
18	MEMBER MILLER: Yes, we talked
19	about sort of training to figure out what
20	minimum level of metadata you need to certify
21	your data's correct. For instance, I said you
22	only needed a position, a time, and a depth,

1	
	Page 63
1	and then someone else added that if you just
2	put in if you knew just the bare offsets
3	we're talking single-beam here, we're just
4	talking really simple data collection if
5	you added a little tiny bit more data to that,
6	to make sure that single-beam soundings from
7	various sources were good, that was pointed
8	out as something that NOAA could do as sort of
9	value-added, without a tremendous amount of
10	cost to it.
11	CAPT. GLANG: I would hope that
12	so, you're talking about what kind of metadata
13	you might need if you were crowdsourcing, for
14	instance? I would hope that, within the
15	construct of our IOCM standard, that the
16	crowdsourcing already fits, and that the way
17	we facilitate taking data from partners and
18	trusted sources would incorporate what we have
19	in those standards already. They're pretty
20	broad standards. I don't think it's too much
21	of a stretch.
22	MEMBER JAY: Crowdsourcing came up

	Page 64
1	in our group, the tides and currents, as well.
2	It seems to be a persistent theme here, just
3	because of the difficulty of the environment
4	and the idea that standards needed to be
5	flexible, or at different levels.
6	And the OPUS analogy that I didn't
7	I'm not familiar with it was brought up
8	in our context, that data can be made publicly
9	available through that, even though it's not
10	collected by the federal government.
11	CAPT. GLANG: I'm not sure I heard
12	every word, but it was a commentary more that
13	
14	MEMBER JAY: It was a commentary
15	that there are other models within, in this
16	case, NGS, for crowdsourcing data of somewhat
17	unknown or variable standard. And you know,
18	you use it at your own risk.
19	CAPT. GLANG: Okay.
20	MR. MAYER: I wonder if what we're
21	hearing kind of collectively is an evolution
22	of what maybe we should think about as a

Page 65 1 national kind of frontier survey strategy, 2 something that is kind of set apart from our historic evolution of survey strategies, that 3 is catered to -- in this case, it's Alaska-4 5 focused, but there may be other places. Joyce, out in the western Pacific, where you 6 7 have responsibilities, where you focus on 8 crowdsourcing, you focus on making every 9 platform available, data collection platform. 10 But I wonder if we can articulate this as a central theme, in terms of a 11 12 frontier survey strategy, that then we can start establishing guidelines to. 13 14 MEMBER MILLER: Actually, there 15 was one really good -- I wrote it down. Someone said, it was one of our stakeholders 16 "Perfect is the enemy of good." 17 18 (Laughter) 19 MEMBER MILLER: And I thought that 20 was - I thought that was a really interesting 21 way to think about things. 22 CHAIR WELLSLAGER: You know, and

	Page 66
1	again, once again, going back to a
2	conversation, or a question that Dr. Sullivan
3	posed out to us as a panel yesterday, and
4	using what you said Joyce, does it need to be
5	perfect in every situation? Are there not
6	cases where good will suffice? Or okay will
7	suffice?
8	Because, based on the conditions
9	that you've got to work in, based on the
10	situations you have, any data, if it can meet
11	a standard, and maybe that standard might need
12	to be somewhat modified, could be used, and
13	it's better than nothing at all. And this
14	might be a situation in Alaska where we need
15	to look at doing something like that.
16	Aimee said without the tide gauge,
17	there were no predicted tides, and they really
18	were able to, having something like that,
19	determine whether or not they needed to move
20	or evacuate the town to the high school or
21	whatever, and they made the decision not to,
22	and were okay with that. But, without any

	Page 67
1	type of a tide gauge or without any type of
2	predicted tides, they can't do that type of
3	thing.
4	So, again, I think we need to sit
5	back and think about the crowdsourcing, and
6	maybe in some situations, do we have to have
7	everything perfect, or as good as it possibly
8	can be? And my thoughts are, maybe not.
9	MS. BLACKWELL: Following along
10	that same line of conversation, and others, I
11	just think we ought to be careful with, you
12	know, if we are the authoritative offices that
13	provide, you know, the best data and
14	information that we have available, that we be
15	careful in the recommendations and the
16	expectations of doing it all, at all different
17	levels.
18	Because, we're going to be
19	competing, you know, to let different levels
20	of standards be met. And I'm not saying it's
21	wrong to do that, I'm just saying that it
22	would, you know, from my office in particular,

	Page 68
1	I would speak and say, we want to make other
2	crowdsourcing types of data available, but we
3	have to be balanced in making sure the users
4	know that this is a different level, this is
5	not authoritative and very accurate
6	information, but it is information that can be
7	shared, and what the expected accuracies are
8	of that data.
9	As well as, you know, realizing
10	that we have resource constraints, and we want
11	to appropriately, you know, put our resources
12	in the right areas.
13	So, if you want, you know, very
14	exact information about, you know, where
15	stations are, and more CORS, and more improved
16	models, then, you know, we're going to be, you
17	know, torn in an area where we want to focus
18	on providing the best of the best
19	infrastructure, and also just being clear as
20	to what the other data that's available is,
21	and how much we can dedicate to those other
22	levels or standards of data that's being

Page 69 1 provided and disseminated. 2 CHAIR WELLSLAGER: Ken? 3 MEMBER BARBOR: Yes, let me pick up where David left off, and follow on your 4 5 comments there, Juliana. Again, NGS was brought up in that light as a shining example 6 7 that while you have the CORS stations, and 8 you've got a, you know, very rigidly specified 9 requirements for that, you can also go in with 10 your individual benchmark, and through OPUS, work up the data on it, and then have the 11 12 ability to save that, and have it accessible to other users should they want. And it is 13 14 appropriately attributed as a non-CORS - you 15 know, whether highly suspect or whatever. But, that is a valuable piece of 16 data for somebody, and it is retrievable 17 18 through you, and not through some circuitous 19 Google search of all the available, you know, 20 reference spots that anybody ever inputted 21 somewhere. So, again, that was brought up as 22 an excellent example of not compromising your

	Page 70
1	standards, but embracing all of the data
2	that's out there.
3	CHAIR WELLSLAGER: David? And
4	pull your mic to you just a little bit so I
5	can hear you.
б	MEMBER JAY: Another example along
7	the same line, would be the National Ocean
8	Data Center. It doesn't just sanction the
9	most recent data collected to the highest
10	standards, it's got everything, you know. We
11	recognize that the ocean is a very big place,
12	and everything that was ever collected is in
13	there somewhere, at least if somebody put it
14	there it is.
15	The objective is to salvage all
16	the historical data, and it is a variable
17	standard. Some of it is outdated, because the
18	ocean changes, but it's all there.
19	CHAIR WELLSLAGER: Jon? A
20	hydrographer can't turn a mic on?
21	(Laughter)
22	MR. DASLER: Okay, here we go, got

	Page 71
1	it. Jon Dasler. It's been said a person with
2	one watch knows exactly what time it is. A
3	person with two watches is never quite sure.
4	And I think the problem is it's a tremendous
5	expense to get, even if they're private assets
6	and you're bringing that out to get out to
7	these sites and collect the data.
8	So, I think just the basic concept
9	of some basic standards rather than, you know,
10	20 people out there with watches that aren't
11	even at least synchronizing them. And so,
12	there - that's what IOCM did. They took the
13	hydrographic specifications and deliverables,
14	and sort of compressed that a little bit.
15	It's not quite as stringent, but at least get
16	the basic standards of what really needs to be
17	done.
18	It's a minimal extra effort, but
19	like I said, the biggest effort is getting to
20	these sites, and getting the data. And you
21	really do need to have a set of standards.
22	Otherwise, it's - to deconflict this

	Page 72
1	information and sort it out, is going to be
2	more effort than it took to collect it. And,
3	you know, you really need to take that into
4	account.
5	MEMBER BRIGHAM: Can I add
6	something -
7	CHAIR WELLSLAGER: Sure.
8	MEMBER BRIGHAM: - from our group?
9	What we did here, rigorously, from the
10	stakeholders and the users, that there are
11	wide swaths of the United States Maritime
12	Arctic with no soundings, or some soundings
13	from the Admiralty charts of Captain Cook.
14	So, we are in the 21st century.
15	So, this conflict of whether the
16	data is good enough, or bad enough, or what
17	modes of strategies of collection and all of
18	that, there are good arguments that you need
19	international standards.
20	And what is fascinating, is our
21	government is proposing detailed management
22	principles, marine spatial planning, et

	Page 73
1	cetera, where we don't have the baseline data
2	to do that kind of management. We don't have
3	the baseline bathymetry, hydrography,
4	observing stations, et cetera. So, we can't
5	do all of those sophisticated - use those
б	tools, et cetera, and do that management
7	without some baseline information.
8	So, the message is clear. The
9	stakeholders are telling us, you know, to use
10	the place safely and efficiently. We don't
11	have enough information to safely navigate.
12	So, I mean, you know, it's a basic conflict.
13	But, I think at the upper echelons
14	of policy making, pretty sophisticated
15	management tools are being proposed, where we
16	just don't have information available to
17	actually employ those tools. And the flagship
18	is marine spatial planning. So, it's been
19	pretty interesting, different levels of the
20	government talk in different directions here.
21	MEMBER DIONNE: That was something
22	that I realized very early on when I started

Page 74 1 working at the reserve in Maine, is that the 2 coastal managers have lots and lots of needs, but they do not want to pay for data 3 So, it's a real problem. 4 collection. 5 CHAIR WELLSLAGER: Yes, Gary? MEMBER JEFFRESS: This is probably 6 7 a good place to remind you of the Exxon Valdez 8 incident, especially when we're talking about 9 exploring into the Arctic. 10 One of the fundamentals that came out of the Exxon Valdez was that both Exxon 11 12 and the United States government knew exactly where the Bligh Reef was, because it was on a 13 14 NOAA chart, and that was the benchmark in which the litigation took off from. 15 16 There was no argument on either side that the reef was where it was plotted on 17 18 the chart, and it was plotted to a certain 19 accuracy on the chart, and so everybody was 20 aware of that. 21 And if the same thing is going to 22 happen in the Arctic, we really need that same

	Page 75
1	standard of mapping, because it's going to end
2	up in a court of law. And that's why Texas,
3	when we put in a tide gauge network, we had to
4	follow NOAA's standard, because the data was
5	going to be used for littoral boundary
6	disputes, and it was going to go into court.
7	So, I think that's the benchmark
8	we got to take off from. And NOAA is the
9	scientific agency for the federal government
10	that sets the standard for nautical charting.
11	CHAIR WELLSLAGER: Point noted,
12	thank you. Anybody else? Gerd?
13	CAPT. GLANG: Just wanted to think
14	maybe a little bit differently about the
15	crowdsourcing of data, sounding data in
16	particular. As long as you can say something
17	about that data, what systems were used to
18	acquire it, how it was collected, then Coast
19	Survey can make a decision about how to use
20	that information.
21	You may choose to use it only to
22	evaluate whether I have a problem and I need

	Page 76
1	to go back and do something, a more intense
2	survey to NOAA standards. Or, if there is no
3	data, you may choose, we may choose to put it
4	on the chart, and we can qualify it in certain
5	ways. There are ways to show that on the
6	chart, to identify the quality of the data.
7	So, it's - we don't need to get
8	too wrapped around the axle on standards, as
9	long as we know that the data is being
10	interpreted and applied to the chart, with
11	consideration of where it came from.
12	CHAIR WELLSLAGER: And that builds
13	on the need for accurate metadata. Without
14	that, we really don't know what it is that
15	we're working with.
16	My office is in the process of
17	building a database of geodetic control, that
18	is not able to meet blue book standards, but
19	we have implemented specifications that, if
20	they are met, the user community can give us
21	the coordinates, but we also put a disclaimer
22	on the database. "These were not created by

	Page 77
1	my office, but are being hosted by our
2	database. Use at your own discretion."
3	Now, you have to take it up a
4	whole other level for nautical charting,
5	because it is a legally binding document.
6	But, the point is, you need to know what it is
7	that you're working with, and that's going to
8	be done using the metadata. And if you've got
9	very accurate metadata, then I think you can
10	make intelligent decisions on whether you
11	should or should not use this information.
12	Tides and Currents.
13	MEMBER BARBOR: We had a small but
14	reasonably diverse group, and I think what we
15	initially came up with very, very quickly, was
16	- and Rich, you know, provided guidance that,
17	"Yes, they've taken a look. They probably
18	need 30 more tide stations here," you know,
19	"appropriate tide stations." That's not going
20	to happen. So, how do we back off of that?
21	And what sort of - is there some way to
22	prioritize or the like, and come up and attack

	Page 78
1	this with a more methodical and learned way?
2	And in particular, the key is, and
3	other groups have talked about this, is that
4	there are different thresholds. Users have
5	different needs. They can accept different
6	standards. And in some cases, in terms of
7	tides, you know, just having a relative water
8	level or the, you know, constituent harmonics
9	for a particular area, would be sufficient to
10	- as Amy would say, "Geez, okay, we're coming
11	up on a high tide as this wind peaks,
12	therefore, we'll have a significant storm
13	surge."
14	The absolute value wasn't
15	important, the relative value was. Obviously,
16	for other areas, you need the absolute value
17	if you're going to try to apply it to a chart.
18	So - but, you've got to establish
19	that. And that should factor into how you
20	prioritize what sort of tide stations you're
21	going to start establishing. And, we clearly
22	need to look at innovation and technology, and

Page 79 1 innovative thoughts on how we approach these 2 problems, because Alaska does present unique 3 problems. You don't go out there and stick a, you know, a Sutron tube out there and let it 4 5 winter-over, doesn't work. 6 So, with that in mind, we've got 7 to develop some - perhaps develop new 8 technologies. There was some discussion about 9 an acoustic sled that they used on the ice for 10 winter-over, and got a winter's worth of tide data, not real time, but again, a good 11 12 reference piece of material that you can begin to develop constituents and the like. 13 And so, 14 that's innovative sorts of ways of attacking this rather difficult environment here. 15 16 And also, take advantage of what 17 other agencies. We did not - we had - no, we 18 had no industry other than a survey industry 19 representative. So, you know, we obviously 20 look and go, you know, what sort of 21 capabilities can the oil industries, the shipping industries, bring to bear? 22

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	Page 80
1	It doesn't have to be robust, oil
2	hopefully would be robust, but anyhow, they
3	can contribute something, getting equipment to
4	an appropriate place where you want to get it
5	installed, and use those sorts of things to
6	help that aspect. You know, as one other
7	group mentioned, just getting there is half
8	the problem in this area.
9	And then what kind of mechanisms
10	are there for coordination? Because there are
11	a lot of stakeholders with, as I said, diverse
12	needs, but very inter-related needs, and we've
13	got to have a better understanding of those
14	people, who is doing what, how can an
15	expansion of one person's efforts meet another
16	person's requirements.
17	And we felt that an in-place
18	mechanism that appears to have a lot of
19	energy, if not money behind it, is the Alaska
20	Ocean Observing System, AOOS, and that would
21	be a good coordinating body.
22	They have apparently various

	Page 81
1	forms. One pointed out was the Alaska Marine
2	Science Symposium that brings a lot of people
3	together that - where you can say, "Okay,
4	these are the sorts of activities that are
5	going to happen over the next year." Again,
6	and so, take that list of activities and see
7	how you can capitalize, leverage, and - to get
8	the most out in terms of our areas of tides
9	and currents.
10	And so, AOOS seemed very willing
11	to take that on board. Again, not speaking
12	for the boss, but take that on board and see
13	what they could do with the Alaska Marine
14	Science Symposium.
15	And one comment that, again, a
16	low-hanging fruit sort of thing, but it does,
17	you know, some of our folks in there said,
18	"Geez, we do not get enough warning on what
19	OCS is going to do, when and where." And
20	again, given a little longer lead time, we
21	might be able to get some more assets to bear
22	in terms of capitalizing on the water level

Page 82 1 controls we know is going to come along with 2 that capability. 3 Okay, because, you know, Rich 4 mentioned he thought we probably needed 30, we 5 decided to come up with an A to Z, so at least 6 26 priority areas. But at any rate, and in 7 fact, the AOOS representative came up with 8 three, and I said, "Oh, we've got three," 9 which sounded very reasonable and manageable. 10 But, those sorts of things need to be, again, fleshed out, and make sure that -11 12 if that is the best three or the like. Access to data, which we've kind of already 13 14 discussed, is - and Aimee Fish from Weather Service brought up an excellent point. 15 She had been using some sort of 16 17 tide prediction based on a two week observation back in the 1890s, went to the 18 19 website, and it was gone. Well, it, for 20 whatever reasons, probably reasonable reasons, to me it sounds like, I'm not sure how good 21 22 those data were, but something she had become

Page 83 accustomed to using, was no longer available. 1 2 There are a lot of datasets like 3 4 that, that somebody may have some use for. 5 Now, you have to take it for what it's worth, 6 but, you know, access to historic non-standard 7 and sorts of data sets was felt in our group 8 that, appropriate caveated, should be 9 available for the user. 10 And I've already talked about the OPUS example where, again, it's an 11 12 appropriately attributed, use it at your own risk. And you can tell the difference between 13 14 the, you know, bench-marked areas, and those that aren't quite as rigorous. 15 16 And then another important issue, 17 I think, is again, when you're out there 18 surveying, a very strong belief that, you 19 know, whether you're actually delivering your 20 product as an ellipsoidal reference survey, it 21 should be done with ellipsoidal references, 22 and that's what's going to drive a lot of the

	Page 84
1	water level understanding in the future.
2	We had a number of innovative
3	issues, I think. There are buoys out there.
4	AOOS is putting buoys out there. If you put
5	on an appropriately precise GPS, you can get
6	water levels off that buoy now, and that's an
7	additional data source, you know, in the open
8	ocean.
9	GPS on the ferries, you know, can
10	give you water level. ADCP on the ferries can
11	give you currents. And those sorts of flows
12	of information would greatly enhance the body
13	of knowledge for the area. Thank you.
14	CHAIR WELLSLAGER: Questions?
15	Jeff?
16	MEMBER CAROTHERS: Yes, Jeff
17	Carothers. What is the - I mean it sounds
18	like what they need up there is predicted
19	tides really, is the main thing. Rich, what's
20	the observation period, minimum observation
21	period, to develop the harmonic constituents
22	for an area?

1	Page 85 MR. EDWING: 30 days.
	MR. EDWING: 30 days.
2	MEMBER CAROTHERS: 30 days.
3	MR. EDWING: On a lunar cycle.
4	MEMBER CAROTHERS: Okay.
5	CHAIR WELLSLAGER: So, really,
6	we're talking about a 30 day project, is what
7	we're talking about.
8	MEMBER BARBOR: Yes, and -
9	CHAIR WELLSLAGER: Go ahead.
10	MEMBER BARBOR: And again, those
11	are the sorts of - you know, if you're doing
12	survey up there, and there's a lot of survey
13	going on, either contractor or white ship,
14	it's got water level controls. And so, that
15	sort of stuff needs to get propagated, and
16	somehow incorporated into the body of
17	knowledge.
18	MEMBER CAROTHERS: The other thing
19	I had, I don't - I'm not an expert in this
20	field, but the InSAR data, I don't know if
21	they can monitor water level and measure it
22	from satellites. I'm not sure if that's

	Page 86
1	possible or not, I mean, as an option.
2	MEMBER BARBOR: No. And I think
3	David brought up SAR, you know, for water
4	level determination too.
5	MEMBER JAY: When does the new
6	InSAR satellite start flying?
7	CHAIR WELLSLAGER: When SpaceX can
8	launch it.
9	(Laughter)
10	CHAIR WELLSLAGER: Frank?
11	MEMBER KUDRNA: I sat in on this
12	group, and there was a general theme that
13	budgets are going to be tight, and we couldn't
14	ask for things that cost massive amounts of
15	money to NOAA.
16	So, the theme that we worked on
17	was how do you piggyback some existing
18	activities that are taking place to get more
19	observations of data? How do you partner with
20	other folks that have the same need? Because
21	many of the things that we're talking about,
22	NOAA is not the only party in the game. There

	Page 87
1	are others that could be cost-shared or
2	partnered with, or combined, in terms of
3	products.
4	And, you know, we had a discussion
5	of the oil leases that take place. Even
6	though that's a federal oil lease, they have
7	land-side facilities that they have to
8	construct, that the states have the ability to
9	negotiate terms and conditions that could have
10	observation platforms established through
11	identification of priorities, and establishing
12	the kinds of needs that could be incorporated
13	as those fields are developed.
14	So, our theme was not to create a
15	huge shopping list for NOAA, but to try and
16	talk about priorities, and those things that
17	could be partnered.
18	MEMBER BARBOR: And I think, you
19	know, what - we had Amy Holman in our group,
20	and I think the key role that NOAA plays in
21	this, is being a very vocal and active
22	contributor to these sorts of Alaska Marine

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1	Science Symposiums. You know, she's on the
2	Board of Directors of AOOS.
3	So, that is where you leverage
4	that sort of thing. And then, you know, bring
5	it back to the home office and say, "If we can
6	get this here, you know, we will have
7	leveraged, you know, an asset, and collect the
8	data."
9	MEMBER MILLER: One thing that I
10	noticed throughout the entire symposium and so
11	forth, is I think the navigation manager
12	concept is working very effectively here. It
13	works well in the Pacific too. That just that
14	position, which - I don't know - how long ago
15	was it established? Nav managers?
16	MEMBER BARBOR: Maybe a decade.
17	MEMBER MILLER: Yes. But, I think
18	it very much facilitates this type of
19	collaboration and so forth. So, it sounds
20	like you're doing a good job, Matt.
21	MEMBER BARBOR: Yes, take a bow.
22	(Laughter)

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1	CHAIR WELLSLAGER: Okay, so, we've
2	got the recommendations that have actually
3	taken place here. I want to do one thing
4	first, then we're going to come back to this,
5	and try to consolidate what we've talked about
6	into, at most, maybe four recommendations, and
7	really whittle this down.
8	We want to work together as a
9	group, and come up with what we think could be
10	a good, concise way of presenting to NOAA
11	administration what we want to do. And
12	possibly taking Larry's approach of looking at
13	everything as a whole, and trying to develop
14	a course of action, might not be a bad idea.
15	Before we do that, Frank had
16	mentioned yesterday, something about a survey,
17	that the Science Advisory Board needs
18	participation from FACA with. So, if we could
19	put that up on the screen. And Frank, did you
20	want to go up and address it at the podium, or
21	are you just going to sit at your spot?
22	MEMBER KUDRNA: I can do it here.

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1	That would be fine. Just to - can you make
2	that a little larger? Here's the background
3	of it. NOAA's Science Advisory Board was
4	asked by the NOAA administrator to look at the
5	entire research enterprise of NOAA. And she
6	charged the Science Advisory Committee with
7	that.
8	A working group made of half
9	Science Advisory Board members, and half
10	outside members, was established. And she
11	gave us a very short time frame for a report
12	back by November on this subject. And it's
13	chaired by Peter Kareiva, the chief scientist
14	and vice president of Nature Conservancy, and
15	Roberta Balstad of Columbia University.
16	And as part of that working group,
17	they've gone back to, and asked the other
18	FACAs that have research-related functions,
19	and the other working committees of NOAA, to
20	provide input. And this was a formal request
21	from Peter, as the chairman of the committee,
22	to HSRP FACA.

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1	And it describes, the goal is to
2	identify opportunities to enhance NOAA's
3	research portfolio, and ensure it's focused on
4	meeting NOAA's RND needs for today and the
5	future, with particular attention to NOAA's
6	strategic priorities, and they are healthy
7	oceans, a weather-ready nation, resilient
8	coastal communities and economies. And then
9	it goes on to describe the task force.
10	The chairman is looking for two or
11	three key points, drawing on the experience,
12	insights of our working committee, that
13	address the following questions or a subset of
14	them. And it says, "Don't feel obligated to
15	address them all."
16	What are some of the best examples
17	you can think of for NOAA research making huge
18	positive impacts on the nation? What are
19	important research opportunities that are
20	being missed by NOAA, and why? Have you
21	uncovered issues with the management and
22	organization of NOAA's research enterprise

Page 92 1 that could be improved? 2 And this is being looked at very hard by the committee. You know, research is 3 spread among probably 11 different places in 4 5 NOAA, and they're asking us, should that 6 structure be changed or modified within NOAA? 7 Are there other issues you feel strongly that 8 the task force must explore or address? 9 On the new R&D portfolio, are 10 there R&D issues currently receiving substantial funding that might receive less 11 12 investment, so that other endeavors could be better resourced? And that's really an 13 14 interesting comment, because we've never seen a direction back from NOAA asking what they 15 16 should stop doing, and how they should prioritize in terms of activities. 17 18 So, we have an opportunity to 19 respond to this. They're asking for it to be 20 no more than two pages. The time frame is by 21 July 10th, so that the next meeting of this 22 group where they'll start formulating items

Page 93 1 will take place. 2 And let me add one other thing to give you an idea of the importance of this. 3 4 The House of Representatives, the Commerce, 5 Justice, Science and Related Agency 6 Appropriation Bill 2013, and the accompanying 7 report included the following language: 8 "Science Advisory Board. The committee understands that NOAA's Science Advisory Board 9 10 is evaluating NOAA's research enterprise, and the effectiveness of its management structure 11 12 to meet its science requirements. 13 Preliminary recommendations will 14 be available later this year. The committee requests that the NOAA Science Advisory Board 15 16 brief the committee no later than 30 days after providing this recommendation to NOAA." 17 This is the appropriation committee in the 18 19 House. 20 And additionally, the Senate, in 21 the Department of Commerce, Justice, Science 22 and Related Agency Bill 2013 accompanying

	Page 94
1	report said, "Research and development, R&D
2	tracking outcomes. The committee directs NOAA
3	to continue to track the division of R&D funds
4	between intermural and extramural NOAA, assure
5	consistency and clarity in the collection and
6	reporting of data, clearly state expected
7	research outcomes, and available funding to
8	provide transparency into the competitive
9	grant process, and increase extramural
10	research funding in future requests, to build
11	broad community support, and leverage external
12	funding for mission-oriented related
13	research."
14	So, the point I'm making is, we've
15	been asked by the administrator of NOAA, and
16	it's been recognized by both Appropriations
17	Committees of Congress, to look into this
18	subject. So, it's an opportunity for our FACA
19	to provide input into the process.
20	CHAIR WELLSLAGER: Okay, thank
21	you. I think this would be good - would it be
22	possible to print this out?

	D 05
1	Page 95 MS. WATSON: We can email.
1	MD. WAIDON. WE Call Chall.
2	CHAIR WELLSLAGER: Actually - or
3	we could email it out to the panel. Why don't
4	we just do that? We'll email it out to the
5	panel. The discussion is kind of taking
6	place, and I think it would be good if we as
7	a group had a task force, subcommittee, call
8	it what you want, of about three members, at
9	most four members, that could look at this,
10	work with it, and we have personnel that could
11	help out with some expertise in what's going
12	on with research and things within each of the
13	tri offices. Do we not?
14	CAPT. LOWELL: Yes, basically any
15	way the FACA wishes to approach this. I think
16	that these are pretty big questions. I don't
17	think they can be resolved today. That's my
18	opinion, you all can decide whether you want
19	to resolve it or not.
20	But, if you put together a small
21	working group, I do believe all three of the
22	offices would be available to provide input,

Page 96 in some sort of inventory, the research that 1 2 is currently going on, whatever it is you feel you need to be able to answer these questions 3 4 or not. As, I think Frank pointed out, you 5 don't have to address every question. But, we stand by to assist as needed. 6 7 CHAIR WELLSLAGER: Okay. So, that 8 being said, it would be good if, when we get 9 this, we could sit and think about it. But, 10 David, you had a question or a statement? MEMBER JAY: Yes, just a point of 11 12 clarification. Does this include all NOAA research, like Sea Grant, all programs, or is 13 it just certain classes of programs? 14 15 MEMBER KUDRNA: The study itself 16 is looking at all research within NOAA. 17 CAPT. LOWELL: But, the question of this fact has been asked. Is the research 18 19 being done by the nav services? I do believe 20 that would be my interpretation of that. 21 MEMBER KUDRNA: I would - it 22 doesn't specifically state that. I would

	Page 97
1	expect it's specific to your charge. But, if
2	you have broader comments, I don't think those
3	are precluded at all either.
4	CHAIR WELLSLAGER: I would like to
5	take the approach of it being the HSRP, and
б	looking at things within where we're
7	addressing as a panel here, which would be the
8	tri offices and nav services, and that type of
9	thing. Joyce?
10	MEMBER MILLER: Yes, I'm a bit -
11	again, looking at just this, but then there's
12	R&D, and then there's, you know, other
13	activities that aren't so - that are
14	management related within NOAA. You know,
15	they're asking where would you take money away
16	on that last question. You know, where, you
17	know, is this only R&D activity? I mean,
18	sometimes there's just a totally hazy line
19	about what's R&D versus what's really
20	management, you know. Does -
21	MEMBER KUDRNA: And I - if I might
22	respond to that -

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1	CHAIR WELLSLAGER: Please.
2	MEMBER KUDRNA: And I don't
3	portend to know exactly what the administrator
4	had in mind when she asked the question, but
5	when we discussed this among our committee,
6	what we expect is most of the time when
7	committees are asked for recommendations, they
8	give a shopping list of added stuff you should
9	spend money on. You know, it's big and huge,
10	and, "You need to do all of these."
11	This question is quite different,
12	and they're asking, are there things we should
13	stop doing now, that have gone the distance,
14	that are less important than things we should
15	expand activities for. Should we put less
16	resources into something, and more resources
17	into something else?
18	And one of the things we as a
19	committee have been debating, is NOAA doesn't
20	know very well how to stop doing something.
21	And I'm not saying it's in this particular
22	area, anywhere within NOAA. And in tough

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	Page 99
1	resource times, anyone needs to know what to
2	stop doing and what to invest more resources
3	into. So, that's part of the question that's
4	being asked.
5	MEMBER MILLER: But, what I'm
6	asking is, does that include management
7	activities, or - what comes to mind
8	immediately is something like ocean
9	exploration, which is not really a research
10	activity. It's an exploration activity. Or,
11	something like sanctuaries, which is a
12	management activity, you know.
13	MEMBER JAY: That's not what they
14	mean though. I don't think that's being
15	requested here.
16	MEMBER KUDRNA: It - the charge
17	itself focused on research, and -
18	MEMBER MILLER: What I'm saying,
19	the line between research and managers is -
20	MEMBER KUDRNA: It's not always
21	clear.
22	MEMBER MILLER: It's not always

	Page 100
1	clear.
2	MEMBER KUDRNA: You're correct.
3	MEMBER JAY: If I may, I would
4	think it would include the extramural funding
5	associated with the marine sanctuary program,
6	but it wouldn't include, at least in my
7	interpretation, wouldn't include the actual
8	management of the sanctuaries.
9	MEMBER MILLER: Yes, but that's
10	often very hard to wrinkle out too, so.
11	MEMBER JAY: Well, yes, that's
12	true.
13	CHAIR WELLSLAGER: Okay. Well,
14	what I would like to see is, you know, a small
15	group, three, four tops, to look at this, come
16	up with some answers, and send those to the
17	panel as a whole, that we can work with.
18	CAPT. LOWELL: Everything would
19	have to come back to the panel.
20	CHAIR WELLSLAGER: Right, right.
21	CAPT. LOWELL: It was very clear.
22	CHAIR WELLSLAGER: Right.

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1	CAPT. LOWELL: However you
2	structure it, whether you go here, or a small
3	working group, it has to come back to the
4	broader panel before it goes on.
5	CHAIR WELLSLAGER: Exactly. Gerd?
6	CAPT. GLANG: Could those three
7	members of that small working group, would
8	they be allowed to interact - this is probably
9	more for the DFO - interact with the SAB to
10	tease out a little bit more? Because I think
11	the charge here, the questions are fairly
12	broad ranging. I don't think this panel has
13	the insight into NOAA's R&D portfolio. It
14	would be much better for this panel to provide
15	comment on the kinds of research, and then
16	bracket that even narrower by what they've
17	heard here today, for instance. Do you think
18	- I'm just thinking out loud.
19	CHAIR WELLSLAGER: Just a second.
20	You can say something.
21	CAPT. LOWELL: I was going to
22	mention, on the introduction paragraph of this

	Page 102
1	request, it wasn't necessarily built around
2	in-depth knowledge of everything. It was
3	simply a body of knowledge available to the
4	panel, and insights. So, it wasn't - I don't
5	really think they're asking for an in-depth
6	study here.
7	I think they're looking at, how
8	can we pull a little bit of minimal
9	information together, and then based on the
10	body of knowledge that the panel may have has
11	come up, to try to answer these questions.
12	And you don't have to answer them all, but
13	it's the FACA, or it's your panel, and you can
14	answer it the way you want.
15	CHAIR WELLSLAGER: Admiral?
16	MEMBER BARBOR: Being tempered by
17	what John just said, I mean, yes, obviously I
18	know the Navy system well, and I know I could
19	hit a button, and out would print all the line
20	item R&D programs that, you know - I didn't
21	manage R&D, so I didn't have any, but I could
22	at least see what the oceanographer had. I

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1	assume, you know, do you split yours out R&D
2	and operation maintenance, or, you know - no,
3	and I - well, and I kind of thought that might
4	be true.
5	CAPT. LOWELL: I think the issue
6	with NOAA is these things are so tightly tied
7	together, and intermixed. As Joyce was
8	saying, you know, where is that line of pure
9	R&D versus taking some technology and
10	operationalizing it, versus actually utilizing
11	it in a production capacity?
12	You know, those lines are moving
13	around a lot. I think the budget lines are
14	intermixed. Some is out of base, some is out
15	of pure research funds, some are grants, some
16	are laboratories that are self-funded. So,
17	there's many different ways. So, there is no,
18	you know, easy button here. I don't think so.
19	CHAIR WELLSLAGER: You know,
20	Frank, to follow up on what Gerd had
21	mentioned, when it - is there someone at the
22	Science Advisory Board that one, two, three,

Page 1collectively, the whole panel on a conferencecall, could contact and discuss this with?MEMBER KUDRNA: I would suggestPeter Kareiva, who has prepared the letter.And he's really an open guy. He's on vacationfor a couple weeks, but he'll be back shortly.And he would be the appropriate guy to talkto.CHAIR WELLSLAGER: Okay. Were -Kathy, were you going to send this out, orFrank, could you sent this out to the panel?MEMBER KUDRNA: Yes, Kathy is, Ithink, yes.CHAIR WELLSLAGER: Could you make,to her, his contact information available onthat same email, or is it on there?	
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15 to her, his contact information available on	
16 that same email, or is it on there?	
17 CAPT. LOWELL: I think it's on the	
18 bottom of this.	
19 CHAIR WELLSLAGER: Okay, okay.	
20 Yes, David?	
21 MEMBER JAY: I think what's being	
22 focused on by this group, is the sort of thing	

Page 105 that researchers see, meaning, there's a Sea 1 2 Grant solicitation in Oregon due this week, or there's one of these things in the federal 3 4 registry you look at and go, "What on earth 5 did they want?" You know, but it's clearly a research solicitation for extra - at least 6 7 partially extramural funding from NOAA. Ι 8 think that's the kind of thing that they're 9 primarily targeting. 10 CHAIR WELLSLAGER: Well, and again, I think what we need to do, is once we 11 12 get the group to talk to the board, and really drill down a little bit more, and see where it 13 14 is that we want to go with this, and take it 15 up. Would anybody like to step up to the plate and offer their services in helping work 16 17 with this? David, thank you. 18 MEMBER MILLER: Actually, I'd like to ask a question. 19 20 CHAIR WELLSLAGER: Sure. 21 MEMBER MILLER: I'm gone for the 22 next month. What's the time frame on this?

Page 106 1 I assume it's -2 Yesterday. CHAIR WELLSLAGER: 3 MEMBER KUDRNA: 10th of July. 4 CHAIR WELLSLAGER: July 10th. 5 MEMBER MILLER: Yes, I'd offer, but I can't. 6 7 Michele, you CHAIR WELLSLAGER: 8 said you would? Okay. Anybody else? No? 9 Okay, great. Once, twice, well, I think we've got three very thoughtful people. I think we 10 11 have some good expertise here. 12 So, why don't we do this? If you 13 all would please arrange a time where you can 14 discuss these things, and get in touch with the gentlemen at Science Advisory Board, and 15 we'll make this work. I think that would be 16 17 great. And we need to try to set up a time 18 line. 19 CAPT. LOWELL: Yes, set up a Chair 20 of this little working group, and make sure 21 Kathy is involved in all discussions, so that 22 we have a way to track what's going on.

	Page 107
1	MS. WATSON: Right, and Matt,
2	could I say one - once the small response
3	group for this SAB request gets their stuff
4	together, it needs to be fleshed out with the
5	full panel.
6	CHAIR WELLSLAGER: Right.
7	MS. WATSON: Because anything
8	that's a sub-committee, or a task, or a
9	working group of the HSRP, has to always
10	report back to the full panel.
11	CHAIR WELLSLAGER: Right, right.
12	MS. WATSON: Okay.
13	CHAIR WELLSLAGER: Exactly.
14	MEMBER DIONNE: Through Kathy, or
15	through a general email list?
16	MS. WATSON: Well, it will be from
17	the Chair to the full panel, asking for panel
18	comments.
19	CHAIR WELLSLAGER: The Chair of
20	this group will send that to me. I, in turn,
21	will send it out to the panel.
22	MS. WATSON: Correct.

1	
	Page 108
1	CHAIR WELLSLAGER: Very good. So,
2	would any one of you three like to be the lead
3	with this? All right, Ken, thank you. Yes,
4	okay, very good. So, we'll get this email
5	out, and I will contact the three of you all,
6	and we'll just try to get the ball rolling
7	next week, early next week, and see what we
8	can do with this, okay? Great, thank you.
9	All right, now - yes?
10	MEMBER CAROTHERS: Just real
11	quick. Since it's got to be in by July 10th,
12	do we need to set a deadline for the working
13	committee, so that we have time to address it,
14	a time to review it?
15	CHAIR WELLSLAGER: Actually, yes,
16	I think we should. I don't have a calendar in
17	front of me right now. June 26th would be two
18	weeks before, yes. I would like to see if the
19	panel could get something to me by - would the
20	13th of June be too late? And if I have it on
21	the 13th, it will be out to the panel by the
22	14th. And I would like to have something back

Page 109 1 from everybody maybe by Friday the 22nd. 2 We can compile everything that 3 comes back as comments, and I can send it back 4 out for everybody, and have something to Frank 5 by the week of the 25th. Well, no, let's - 6 July 10th, there we go. 7 CAPT. LOWELL: We have to have it 8 back to the name at the bottom of the letter, 9 you know, a day or two before the comments are 10 due. That should be fine. 11 CHAIR WELLSLAGER: So, Ken, you're 12 going to get it to me by the 13th, and then 13 I'll have it out to the group by the 14th, and 14 if everybody in the group could get their 15 replies back to me by - what would you think 16 would be a manageable time turn around, a 17 week? So, that's going to be the 21st. I can 18 compile the information, and have it back out		
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	16	would be a manageable time turn around, a
18 compile the information, and have it back out	17	week? So, that's going to be the 21st. I can
	18	compile the information, and have it back out
19 to people - say again.	19	to people - say again.
20 CAPT. LOWELL: Yes, bring in the	20	CAPT. LOWELL: Yes, bring in the
21 comments, and go back out for final review -	21	comments, and go back out for final review -
22 CHAIR WELLSLAGER: Right.	22	CHAIR WELLSLAGER: Right.

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1	CAPT. LOWELL: - by everybody.
2	And once that's met, then you can -
3	CHAIR WELLSLAGER: Do that. So,
4	I'll have final review for the panel by the -
5	I'll have it back out to the panel by the
6	25th, so the panel can review it and have it
7	back to me by the 29th.
8	CAPT. LOWELL: Of June.
9	CHAIR WELLSLAGER: Of June, right.
10	Okay, so, let me write that down.
11	MEMBER MILLER: Matt?
12	CHAIR WELLSLAGER: Yes?
13	MEMBER MILLER: I probably won't
14	be able - I don't know if I'm going to have
15	any email on where I'm going to be. So, the
16	first review I probably will not reply on.
17	CHAIR WELLSLAGER: Okay.
18	MEMBER FIELDS: Matt, just for
19	information, I know I won't be able to get you
20	anything back for that first review. But, I
21	will take a look at the final of it.
22	CHAIR WELLSLAGER: Okay, great,

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1	great. Okay, thank you very much. Getting
2	back to business at hand, we need to discuss
3	a little bit more in-depth now the
4	recommendations, and whittle things down, or
5	hone things together, or assimilate what we
6	had there into three, at most four
7	recommendations. And, if we could pull some
8	of these back up, and
9	MS. WATSON: Geospatial, tides and
10	currents.
11	CHAIR WELLSLAGER: Yes, you know
12	what? I'm wondering if it wouldn't be easier
13	if we had the flip chart right there,
14	something that we could talk and write on the
15	board.
16	MS. WATSON: All right, got it.
17	Does anyone want to volunteer? Panel members?
18	CHAIR WELLSLAGER: Yes, Joyce?
19	MEMBER MILLER: I thought that
20	summary on the third one, the one that had the
21	26 - and then at the end of it -
22	MS. WATSON: Arctic Emerging?

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1	MEMBER MILLER: I thought that
2	might be a good place to start.
3	CHAIR WELLSLAGER: Okay. Would
4	you like to start?
5	-
	MEMBER MILLER: Well, I mean, I
6	felt like that summarized much of what our
7	panel did. We didn't go into the oil spill
8	prevention response research.
9	But, the first part of that,
10	surveys and related data collection done in
11	efficient and innovative ways, and then
12	discovering data - or entering data are
13	discoverable and accessible. I think the only
14	thing I think it misses, is the issue of fit
15	for use, or standards, that other groups
16	discussed.
17	CHAIR WELLSLAGER: Lawson?
18	MEMBER BRIGHAM: No, there are
19	more words to this, and Larry and I kind of
20	cooked them up during our discussion, or Larry
21	did. It's a new frontier strategy on how to
22	handle the surveys. It's not just the

Page 113 1 standards thing that's the issue, it's a 2 different strategy for the nation, for this remote area, that it has to be woven into this 3 4 theme. Wasn't that your thought, Larry? 5 MR. MAYER: I think it's just it's a way to frame this that separates it 6 7 from our efforts all the time, to be as close 8 to perfect as we can. We should drive 9 hydrography and standards for the most part. 10 But, it's a recognition that this is really a special circumstance, and we have 11 12 to somewhat step back. And so, I think if you frame this in something that is not 13 14 constrained by the normal hydrographic process, and we called it something different, 15 that you invoke - and again, it may not just 16 17 be Alaska and the Arctic, it may the western Pacific, or other places where data is 18 19 absolutely sparse, and something is better 20 than nothing. 21 So, I think if you just kind of 22 frame it in that context, it provides an

	Page 114
1	opening, yet doesn't go into the areas that
2	Gary and Juliana were very concerned about,
3	which I think are very appropriate to be
4	concerned about. So, it's not a compromise of
5	hydrography in any sense, it's just saying
6	that sometimes we have to do something a
7	little different.
8	MS. BLACKWELL: This is Juliana.
9	It dawned on me as we're having this
10	discussion about these different applications
11	of the data, and the need, and being able to
12	collect what's out there.
13	When we walked onboard the
14	Midnight Sun or Star, I don't remember - and
15	we saw on the bridge, the, you know, it was -
16	participated in the volunteer observations for
17	the Weather Service, and had received, you
18	know, year after year, the plaque, you know,
19	recognizing the observations that the
20	personnel on that ship had collected and
21	contributed, that enhanced the weather
22	predictions through the Weather Service.

	Page 115
1	And the fact that this volunteer
2	observing system for the Weather Service has
3	existed for decades - yes, thank you - I think
4	this is kind of along the same lines of what
5	we're talking about here for hydrographic
6	purposes, is that, you know, as you all are
7	saying, it's not necessarily what we would do
8	if we were making our own chart based on our
9	standards and requirements, but if the data
10	can be collected by other entities, and
11	provided, it is valuable for many
12	applications.
13	And so, I guess, it just - you
14	know, I don't know if I'm thinking about it
15	the same way you all are, but thinking about
16	the Weather Service volunteer observation
17	program, and tying that into what we're
18	talking about here, is there something to
19	learn from what that program - how that was
20	developed, and how that's utilized, that could
21	apply to the hydrographic and mapping data
22	that we're talking about here today.

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1	CHAIR WELLSLAGER: Ken?
2	MEMBER BARBOR: I agree, and I can
3	envision a, you know, an opening statement
4	that says as NOAA responds in its, you know,
5	manner to acquire the necessary hydrographic
6	data in this area, a, you know, a new strategy
7	must also be, you know, followed, that, you
8	know, a new frontier strategy that gets
9	appropriate data for appropriate uses, and
10	then elucidate some of the recommendations of
11	that - those sorts of data.
12	MEMBER CAROTHERS: I agree. I
13	think the term frontier should be in there.
14	That's kind of -
15	MEMBER BARBOR: It's fitting.
16	MEMBER CAROTHERS: It's just a
17	phase, and I've seen it on every t-shirt down
18	the street I can think of.
19	(Laughter)
20	CHAIR WELLSLAGER: It's the last
21	frontier.
22	(Laughter)

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1	CHAIR WELLSLAGER: All right.
2	Well, that being said, you know, one of the
3	things that we did, at least on two of the
4	panel discussions agree about, was a need for
5	shoreline - accurate shoreline mapping, which
6	NGS is currently doing. And I think that if
7	we could manage that into one of the
8	recommendations, that might be good.
9	Again, Alaska said – or Joel said,
10	I think, something to the effect that it's
11	been since the '20s I guess, since they've had
12	any other mapping done for shoreline, or
13	that's what he's got for baseline data.
14	CAPT. LOWELL: It depends on the
15	part of the country I'm sure, so.
16	CHAIR WELLSLAGER: Yes, okay.
17	Getting something like that out would be
18	beneficial. I guess it would be good if we
19	could - Kathy, could you scroll a little, I
20	guess to the top of whatever that one is that
21	we're looking at?
22	MS. WATSON: Yes, this is the -

	Page 118
1	well, let's see here, the discussions?
2	CHAIR WELLSLAGER: Well, actually
3	I thought there were - a list, one, two,
4	three, four, or something on the
5	recommendations.
6	MS. WATSON: There are, I'm sorry.
7	Here we go.
8	MEMBER BRIGHAM: Yes, they're a
9	list of emerging issues. That's what the
10	theme was.
11	CHAIR WELLSLAGER: Okay.
12	MEMBER BRIGHAM: So, it's not
13	necessarily recommendations, it's emerging
14	trends or issues from the stakeholders. Of
15	course there were panelists there too, so
16	everybody threw in the pot.
17	CHAIR WELLSLAGER: Okay, but
18	seeing these emerging issues - it's kind of
19	hard to look at all of this right now, and try
20	to come up with what you want to throw in too
21	as a recommendation.
22	MEMBER MILLER: Actually,

	Page 119
1	crowdsourcing seems to have come up in almost
2	every one of them. Whether that's something
3	that is well understood, what we mean by that,
4	I'm not positive.
5	CAPT. LOWELL: Let me go back to
б	some of the things I mentioned at the
7	beginning. A recommendation doesn't have to
8	have the solution. Crowdsourcing could be a
9	solution. So, the question then becomes, is
10	what is the recommendation?
11	I think framing it in this whole
12	frontier, I think you've set a condition
13	that's relatively unique to the region we've
14	been in, very appropriate. That particular
15	issue or condition can exist in other parts of
16	the world, makes it more of a national
17	problem.
18	I think these are really key
19	things that everybody is focusing in on. So,
20	then it becomes, what else had bubbled up to
21	the surface that isn't necessarily a solution,
22	but is, can we define the condition - refine

	Page 120
1	the condition to a point where we can have a
2	recommendation that the offices start looking
3	in new directions? And crowdsourcing could be
4	an output of that effort.
5	So, I would recommend you kind of
6	think in those lines. I'm not sure I'm making
7	a lot of sense here, but -
8	MR. MAYER: If you don't want to
9	go into any of the detail, then the
10	recommendation could be to develop a strategy.
11	So, then the office sets the task of
12	developing what the appropriate response is to
13	that call for a frontier strategy.
14	CAPT. LOWELL: And things like -
15	the things that bubbled up on my notes are
16	communication coordination, that's a big
17	overarching issue that came up, certainly in
18	our group, a better understanding of the user
19	requirements.
20	Where, again, we always focus on a
21	standard, you know, a product for everybody.
22	You know, maybe that's not the appropriate

	Page 121
1	approach. So, is there something else in
2	there? What is the requirement, or what is
3	the issue that's being pulled to the surface
4	here? And kind of structure that under the
5	frontier environment, or a condition that so
6	far has really come up in the discussions.
7	CHAIR WELLSLAGER: Michele?
8	MEMBER DIONNE: I think if you
9	want to, you could get some input from the
10	Coastal Ocean Observing Systems, about this
11	issue about defining America's coastline.
12	Because they're looking for it, and they - at
13	least our association was quite surprised to
14	know that it didn't exist. So, you know they
15	called the Coastal Services Center for a map
16	of the US coastline, and was told that there
17	wasn't one.
18	CHAIR WELLSLAGER: Okay, thank
19	you.
20	MEMBER MILLER: Should one of the
21	- I mean in ensuring data are discoverable and
22	accessible, is - I mean, that's something that

	Page 122
1	doesn't have to - I mean, that's not
2	necessarily part of the frontier data
3	collection strategy. I mean, that could be a
4	separate recommendation, or -
5	MEMBER BARBOR: I think it is part
б	of the frontier, because the data we are
7	looking at, is going to be non-standard, not
8	to specs, and therefore, the initial reaction
9	of NOS would be to say, "No, that doesn't meet
10	our standards, therefore it's not part of our
11	dataset." But, it is an important dataset.
12	MEMBER MILLER: I agree with you,
13	yes.
14	MEMBER BARBOR: So, it has to be
15	discoverable and accessible, even though your
16	inclination would be to -
17	MEMBER MILLER: And the
18	recommendation might be for NOAA to support
19	that type of data infrastructure or something
20	like that.
21	CHAIR WELLSLAGER: Michele?
22	MEMBER DIONNE: It seems, you
	Neel P. Cross & Co. Inc.

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	Page 124
1	to you, just transfer it all onto that, if you
2	could do that today.
3	MS. WATSON: That's fine, I can do
4	that.
5	MS. BLACKWELL: I recommend
6	sending it to everyone.
7	CHAIR WELLSLAGER: Okay. So, I
8	think what we're looking at here is an
9	approach that, based on what we have in this
10	state, and the remoteness of this state, and
11	since there is a such a deficiency in data,
12	while we don't want to relax the standards, we
13	do need to address the fact that we want to
14	try to collect data, and get data, and need to
15	have it accurately depicted with metadata, so
16	that we know what we're actually trying to
17	work with. Yes, I'm going to have to chew on
18	this one. Yes, Gary?
19	MEMBER JEFFRESS: It seems to me
20	that most of the stuff that we've discussed is
21	already in our five most wanted document. You
22	know, the need to put more resources into

	Page 125
1	nautical charting, that's in the five most
2	wanted. Shoreline mapping is in the five most
3	wanted, which was a big thing in our group.
4	
5	Maybe we should just focus on
6	what's already in the five most wanted
7	document, and highlight how all the
8	presentations in Alaska identify various
9	components out of that document in the Alaskan
10	scene. It just reinforces what we've already
11	been saying for the last 12 years is it?
12	CHAIR WELLSLAGER: Yes. David?
13	MEMBER JAY: What seems to be
14	different though, I think, is the emphasis on
15	crowdsourcing. That seems like an important
16	and new departure. But, I'm not disagreeing
17	with the rest. I think that's a good point.
18	CHAIR WELLSLAGER: Lawson? Oh,
19	I'm sorry.
20	MEMBER MILLER: But, I like the
21	idea of the frontier. I mean, it would be a
22	specific point to this meeting. And as Dr.

	Page 126
1	Sullivan requested yesterday, you know, it's
2	thinking a bit more out of the box than just
3	more hydrographic surveying, more shoreline
4	mapping.
5	I mean, it's saying that we need
6	to reconsider what kind of standards need to
7	be used in order to collect the data that is
8	so desperately needed in Alaska. It is a
9	unique environment, or an almost unique
10	environment.
11	So, I wouldn't just go with the
12	previous. I think, I would like to start out
13	with, NOAA and other agencies need to develop
14	a frontier, you know, data strategy that, you
15	know, that meets the needs of these places
16	where data almost don't exist.
17	MEMBER DIONNE: I can hear the
18	Star Trek theme song.
19	MEMBER MILLER: Right.
20	(Laughter)
21	MR. MAYER: You may be able to do
22	both, you know. I think Gary is right that

1	
	Page 127
1	these are the fundamental things you need, and
2	I can envision you start out, and say, you
3	know, the panel has been saying for years
4	these are the highest priorities. Well, now
5	we look at this in the context of this
6	frontier area, and it's not so easy to do
7	that.
8	It's not so easy anywhere, but
9	it's particularly difficult to do it here, and
10	it offers unique problems. And so, we
11	recommend the development of a frontier
12	strategy as a way to start addressing those
13	critical issues that are ubiquitous.
14	MEMBER JEFFRESS: Going back to
15	the Exxon Valdez concept of, you know, we knew
16	where the Bligh Reef was because it was on a
17	nautical chart, and because it was all done to
18	high standards. What if we compared the
19	crowdsourcing to existing standards that we
20	know as accurate? You know, has that ever
21	been done? I bet there's a bit of research
22	that probably needs to be done. It's like

1	
	Page 128
1	there's a section of high-quality date that
2	NOAA has observed, what is the crowdsourcing
3	data? How does that fit over time?
4	And then - because if we're going
5	to rely on the crowdsourcing data, and there's
6	an accident, then it opens up a can of worms.
7	"Well, is NOAA at fault for not actually
8	surveying that to their high standards, and
9	they're relying on crowdsourcing data." You
10	know, it's - there's no easy solution.
11	CHAIR WELLSLAGER: Go ahead,
12	Joyce.
13	MEMBER MILLER: Isn't that the
14	question of whether you decide or choose -
15	well, not choose, but make a conscious
16	decision of, this will go on the chart, or -
17	I mean, that - the charts are the liability
18	issue.
19	I mean, if you take NOAA data from
20	NGDC, you're taking what was put in, you have
21	some rudimentary metadata, and then there it
22	is. I mean, I think it's how you choose. And

	Page 129
1	also, as Gerd was saying, you look over it
2	carefully, and you decide whether to put it on
3	a chart of not.
4	MEMBER BRIGHAM: Just a slight
5	geographic reference here. I don't think we
6	should say all of Alaska. I don't think we
7	can say that, because the Gulf of Alaska in
8	the southeast, is charted to reasonably
9	international standards. It's when Matt said
10	the area called "all the rest", but that's not
11	- that's the United States Maritime Arctic.
12	And so, we have to be careful as
13	we tackle Alaska, because I think anything
14	south of the Aleutian chain and Gulf of
15	Alaska, is reasonably well charted, and to -
16	I mean, I don't know. It's the frontier area,
17	which is not all of Alaska. It's just a very
18	narrow - and our discussion was really the
19	Arctic.
20	It wasn't about all the cruise
21	ships in southeast Alaska. It wasn't about
22	that part of the world or the transport of the

	Page 130
1	ferries and all of that. Now, whether those
2	stakeholders believe there isn't enough data
3	is another question, you know.
4	I don't know about Holland America
5	and all the rest of them. They probably feel
6	maybe there isn't enough. But, I think
7	there's - I don't know, Matt, maybe could
8	comment about this geographic split here in
9	Alaska.
10	LT. FORNEY: So, I think the
11	easiest way to put this - by the way, Matt
12	Forney - is to state that when you compare
13	southeast Alaska to the rest of Alaska, it's
14	charted very, very well.
15	When you compare southeast Alaska
16	to the rest of the United States, the surveys
17	that are not up to date 100 percent multibeam,
18	are definitely older surveys than what are
19	present in the rest of the United States that
20	are currently being updated. So, when it
21	comes to cruise industry and marine pilots,
22	that is who drove the survey recommendations

Page 131 1 in southeast Alaska. 2 MEMBER DIONNE: Just a 3 clarification, is the southeast portion of Alaska, does that include all of the villages 4 5 that are being serviced by the shipping folks 6 that were here, Crowley and Vitus? Which part 7 of the line did it fall on? 8 LT. FORNEY: So, Crowley and 9 Vitus, they generally service western Alaska, 10 which is the -11 MEMBER DIONNE: That's the part 12 that's poorly mapped? 13 LT. FORNEY: Yes. 14 MEMBER DIONNE: As they expressed, 15 okay. LT. FORNEY: The smaller villages 16 17 that are in southeast Alaska, yes, there is still work that needs to be done there. 18 Ι 19 don't want to, you know, put off the 20 impression that southeast Alaska is 100 21 percent, and it's the best place in the United 22 States, because it is definitely not the best

Page 1321charted place in the United States.2CAPT. LOWELL: Just to elucidate a3little bit more, obviously Coast Survey has4been investing heavily in southeast Alaska for5a decade now. We have had multiple large6assets out there, lots of contract data.7There's - I haven't seen it8recently, but of high-resolution multibeam9data in southeast Alaska, there's a large10percentage of those areas done.11We have not invested resources on12anything close to that scale up in the other13Alaska portion, with one exception, which is14really the Unimak Pass, and slowly expanding15out for, you know, where all that heavy16tonnage is going.17MEMBER DIONNE: So, it's pretty18much following the lines that oil would move,19is that the idea, or?20CAPT. LOWELL: Passenger ships,21okay.		
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	20	CAPT. LOWELL: Passenger ships.
22 okay.	21	MEMBER DIONNE: Passenger ships,
	22	okay.

	Page 133
1	CAPT. LOWELL: Yes, the cruise
2	industry was really driving that, and the
3	pilots in the Alaskan Marine Highway, those
4	are all heavily trafficked areas.
5	CHAIR WELLSLAGER: Okay. I think
б	we've done enough of this. I'll think about
7	this for a while, because I've got something
8	to chew on. And I will definitely get
9	everything out that Kathy gives to me when I
10	get back to the office on Tuesday. Monday's
11	a federal holiday.
12	Do we want to take maybe a 15
13	minute break, and the come back and talk about
14	the next steps, next meeting, the DFO
15	transition and such? I think we will. Let's
16	take 15 minutes. Let's meet back here at
17	3:00, okay?
18	(Whereupon, the above-entitled
19	matter went off the record at 2:41
20	p.m. and resumed at 3:12 p.m.)
21	CHAIR WELLSLAGER: I've got a
22	headache. Break time is over with. It's time

	Page 134
1	to get back to work, okay?
2	(Laughter)
3	CHAIR WELLSLAGER: Thank you for
4	getting back as quickly as you did. Okay, to
5	wrap things up on the recommendations, I'm
6	going to wind up putting some thoughts on
7	paper, and getting them to Scott. He and I
8	are going to formulate I think what's going to
9	be the thing, and then once we're happy with
10	what we've got, we'll send it out.
11	In addition to that, there's going
12	to need to be some output from the what - the
13	HSRP working groups. And I'm chewing on this,
14	and I think it would be good if I could
15	request the chair of each of those groups to
16	send to me two-three highlight points that
17	they think need - or two or three points that
18	they think were significant in what they've
19	been able to accomplished to date, that can be
20	included in the letter to Dr. Lubchenco, so
21	that we can see where progress has been made,
22	and where we continue to work on these things.

1	
	Page 135
1	Because, you know, it was an idea.
2	It's been a good idea. It's not done yet,
3	it's in the formative stages. So, we want to
4	report out to her what we've done, but let her
5	know that we're working on some other stuff.
6	The next meeting, I would like to
7	entertain the idea of having our next meeting
8	in New Hampshire. We have Larry and Andy's
9	facility that, while they might not be able to
10	host our meeting there, they've got a lot of
11	very interesting and incredibly cool stuff.
12	They'll have just been coming back
13	from the Arctic, so we might actually be able
14	to see some things that you all have been able
15	to do up there. There is a nav service
16	manager there. We would talk with him, try to
17	get some plans about specific things that have
18	been taking place in the New Hampshire, or in
19	the New England area, and deal with things of
20	local interest, but then again, on a broader
21	term. Would that be a site that you all think
22	is worthwhile going to?

	Page 136
1	There had been some talk initially
2	about the possibility of trying to do
3	something in Silver Spring in the fall. And
4	with the election coming up, if we have a
5	reelected president, there might be some staff
6	change. If we have a new president, there
7	will be staff change. And I think it would be
8	just a waste of our time and money to meet
9	there, and ask people from the Hill to come
10	down and address the panel.
11	Instead, that would probably be a
12	good place, or the D.C. metro area, to have
13	our spring meetings. Congress will be getting
14	started. We could probably have people from
15	the Hill before their travel docket gets too
16	full, to come and work with us. So, I would
17	like to propose doing that.
18	MEMBER DIONNE: Do you want a
19	second?
20	CHAIR WELLSLAGER: Well, I was
21	just waiting to see - Gerd was putting
22	something up there, and it just kind of took

	Page 137
1	my attention.
2	MEMBER BRIGHAM: Are you open for
3	other suggestions, or if this -
4	CHAIR WELLSLAGER: I am, sure.
5	MEMBER BRIGHAM: Well, I mean, I
6	think - Gerd's going to put up where we've
7	been. We've been there in 2005 to New
8	Hampshire, and we haven't been to the south I
9	don't think.
10	But, we haven't been to places
11	like New Orleans and Mobile Bay, and I don't
12	know. I'm not a southerner, but I look out
13	for the interests of the southern part of the
14	United States.
15	I don't know, I'm just wondering.
16	We had talked about New Orleans before going
17	to Norfolk, because Norfolk was the Washington
18	connection. From my view, it didn't work very
19	well with the Washington connections, because
20	the Washington connections, other than the
21	Chief of Staff, didn't come to the meeting.
22	So, I wonder about going to a true

Page 1381maritime, large place like New Orleans, and2hearing from all the pilots and the thousand3issues they have, merging issues. I don't4know, just a thought.5CHAIR WELLSLAGER: Yes, and that's6a very good thought. Michele?7MEMBER DIONNE: Well, I was just8going to ask what did you see - what all did9you see when you were in New England? When10you were in New England five years ago. Are11you're talking about Rhode Island? Is that what12you're talking about?13MEMBER ERIGHAM: Larry can tell14you. Were we up there five - a couple of15years ago, right?16CAPT. GLANG: So, Mr. Chair, if I17could just do a quick geographic overview of18where the panel has been in its history?19CHAIR WELLSLAGER: Sure.20CAPT. GLANG: So, I think the21first meeting, as near as I can tell from the22website, was 2004. And we've met twice in		
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22 website, was 2004. And we've met twice in	21	first meeting, as near as I can tell from the
	22	website, was 2004. And we've met twice in

	Page 139
1	Washington D.C. We've had a series of
2	conference calls at least from Silver Spring.
3	We had a meeting in Baltimore in 2009. Let me
4	just keep going here. We met in Rhode Island
5	a couple of years ago. We met in New
6	Hampshire in 2005.
7	MEMBER DIONNE: How many different
8	areas - I understood at one point, maybe
9	during the orientation, that you're supposed
10	to hit the different - certain different
11	regions of the country. How many of those are
12	there?
13	MS. WATSON: Michele, let me - of
14	course Captain Lowell can explain it. At the
15	previous panel, when they first were
16	established in 2002, they set the goal to
17	visit all the regions. And last May, Hawaii
18	was the last region to visit. And then, of
19	course, in the report out letter to the NOAA
20	under-secretary, they reported that they had
21	visited all of the regions, and heard from all
22	the stakeholders.

Page 140 1 MEMBER DIONNE: Thank you. 2 CAPT. GLANG: So, just continuing with the east coast, I think there was one 3 meeting in Miami, and we hit Tampa. We hit 4 5 Houston back in 2006. 6 CAPT. LOWELL: There was one in 7 New York. 8 CAPT. GLANG: There is one in New 9 York buried under there, 2004. 10 MEMBER DIONNE: So, no California, 11 Oregon still? Oh, here we go. 12 CAPT. GLANG: San Diego was 2005. San Francisco, 2008. And then of course 13 14 Portland, Oregon in 2010. Seattle we did -15 did we do Seattle? Where did Seattle go? A little slow - somewhere in there. 16 17 CHAIR WELLSLAGER: I want to say it was 2007, 2008 maybe. 18 19 CAPT. GLANG: There it goes. Is 20 that Seattle? No, that's Portland. Honolulu, 21 Hawaii was last year this time. I got a slow 22 connection. That's the problem with these

	Page 141
1	real-time GIS displays.
2	(Laughter)
3	CAPT. GLANG: And we've actually
4	met here in Anchorage twice, 2006 was the last
5	time. What I wanted to show also, was the
6	little blue squares represent - I'm not sure
7	what database these were parsed from, but they
8	represent port or dock facilities. And so,
9	you kind of get a flavor. Some of these are
10	upriver, so they're fairly small. They're not
11	represented in size by - they don't represent
12	anything, but -
13	CAPT. LOWELL: Can you get rid of
14	that black band there?
15	CAPT. GLANG: We had Duluth, you
16	are correct. Where did New York go? That was
17	New Hampshire. We had New York in - oh,
18	Portland. I thought we had done Seattle, but
19	maybe it's not showing up.
20	CHAIR WELLSLAGER: We have done
21	Seattle.
22	CAPT. GLANG: Well, maybe it's not

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1	in my file. Well, we can just leave it like
2	this, so Matt can talk to it, and -
3	CHAIR WELLSLAGER: Could we bring
4	it more - I mean, CONUS into the center of the
5	screen?
6	MEMBER BRIGHAM: Last time it -
7	when we discussed where to go previous to
8	Norfolk, it was my recollection that we had
9	never been to New Orleans or Long Beach/L.A.,
10	through the large ports in the country.
11	I would just add, if we did go to
12	New Hampshire, and we went to UNH, and the
13	laboratory, saw all of that, we certainly
14	could do stakeholder day in Portsmouth, and
15	hear from the local maritime community there.
16	So, we could combine maybe.
17	MEMBER DIONNE: And the Boston
18	Harbor.
19	MR. MAYER: And Portland.
20	MEMBER DIONNE: Portland, Maine,
21	yes.
22	MR. MAYER: And Gloucester.

Pa 1 MEMBER MILLER: But, I mean, the 2 was a very recent meeting in Providence. It 3 was only two or three years ago. 4 MR. MAYER: Right.	
2 was a very recent meeting in Providence. It 3 was only two or three years ago.	
3 was only two or three years ago.	-
4 MR. MAYER: Right.	
5 CHAIR WELLSLAGER: Michele?	
6 MEMBER DIONNE: One opportunity	we
7 would have in New Hampshire, of course,	
8 Larry's office is only 15 miles from my hous	se,
9 so, that's - I have a bias here. But, you g	get
10 to talk to the fishing industry	
11 representatives, which I don't know that we	ve
12 done much of that.	
13 MEMBER JAY: We could do that in	1
14 New Orleans too.	
15 MEMBER DIONNE: Absolutely.	
16 MEMBER JAY: And in the aftermat	h
17 of the Deepwater Horizon.	
18 MEMBER DIONNE: Best shrimp. Bu	ıt,
19 the shrimp aren't fish, come on.	
20 CHAIR WELLSLAGER: No, we got th	le
21 "swamp people" in New Orleans. We could have	7e
22 a really good time watching that.	

Page 144 1 CAPT. GLANG: So, some of the 2 other suggestions that I've heard from within 3 Coast Survey, from our nav managers, I asked them for their opinions, included Charleston, 4 5 Savannah, Mobile, and New Orleans. 6 New Orleans is an enormous port 7 complex. There's essentially five ports that It's - I 8 comprise the Port of New Orleans. 9 think it's the largest port by tonnage. There are at least four, I've lost count, pilot 10 associations that are inland waterway users. 11 12 I happen to think it's a really good nexus for the work the panel does. 13 14 MEMBER JEFFRESS: Matt? 15 CHAIR WELLSLAGER: Yes, sir? 16 MEMBER JEFFRESS: We could also 17 get an update on that BP oil spill, and its aftermath. 18 19 MEMBER DIONNE: Yes. 20 CHAIR WELLSLAGER: Yes, that's 21 very true. 22 MEMBER DIONNE: Yes, we pushed for

	Page 145
1	that for the last - that was when we were
2	pushing that at the last meeting, so I'd pick
3	New Orleans.
4	CHAIR WELLSLAGER: And odds are
5	we're going to have a hurricane blow through
6	the Gulf, so, you know. Well, that's - I
7	mean, you're right, Lawson, there had been
8	actually quite a bit of discussion about going
9	to New Orleans. And I definitely think that
10	needs to be on the list of places to go.
11	So, I'll open it up to the panel,
12	and I'm not at all against the idea. I think
13	the point being made, that we had a site. We
14	had a visit to Providence two years ago. It's
15	possibly an area that going back to it would
16	be interesting. We have access to a lot of
17	variety there.
18	But, there's also access to a
19	considerable amount of issues that we've been
20	addressing, including datums, including tides
21	and rivers, including fisheries, and other
22	uses of nav data, in the New Orleans area as

	Page 146
1	well. So - Joyce?
2	MEMBER MILLER: I'd just like to
3	point out that NAVO's not many miles up the
4	road, you know, a huge facility that
5	essentially does hydrography as well.
6	CHAIR WELLSLAGER: Up the road
7	from where?
8	MEMBER MILLER: New Orleans.
9	CHAIR WELLSLAGER: New Orleans.
10	MEMBER MILLER: Yes, basically.
11	CHAIR WELLSLAGER: Right. Okay,
12	well, would you like to nominate New Orleans
13	as being a site we could vote on it, or - yes?
14	CAPT. GLANG: If I could suggest
15	to the Chair that we maybe come up with a
16	primary, and an alternate. Because the other
17	overlay we have right now is budget. We have
18	to do a bit of socializing back at NOAA to see
19	whether we could even be approved to have a
20	group travel in the near term. Notionally,
21	we're looking at early winter, late fall,
22	somewhere in there. So, there is a little bit

	Page 147
1	of socializing we have to do back at
2	headquarters to see if this is even realistic.
3	CHAIR WELLSLAGER: Okay.
4	CAPT. GLANG: Because we have this
5	overlay of the travel restrictions.
6	CHAIR WELLSLAGER: Well -
7	CAPT. GLANG: So, I'm suggesting
8	maybe a primary and an alternate, or one, two,
9	three, or something like that.
10	CHAIR WELLSLAGER: We could do
11	that, or we could - let's do that. I like
12	that idea. We can come up with a primary and
13	a secondary site selection for this trip. So,
14	I'll open it up.
15	For New Orleans, is this going to
16	be a site that we should consider going to as
17	our next meeting place? All those in favor,
18	raise your hand. I think consensus has that.
19	Then I would like to suggest the possibility
20	of Portsmouth as a secondary site if that
21	doesn't work, or - well, wait a minute.
22	CAPT. LOWELL: If the reason for

i	
	Page 148
1	an alternate site is for budget
2	considerations, there will be no real budget
3	reduction by going up to another site. So,
4	there's not a major - let me be very clear
5	with everybody - there's not a major cost
6	savings by bringing the HSRP to Washington
7	D.C. I think we have five NOAA employees
8	here, so there are five - I presume everyone
9	else is going to have to travel. Is anybody
10	else in the D.C. area?
11	(Off-mic comment)
12	CAPT. LOWELL: Well, exposure.
13	(Off-mic comment)
14	CAPT. LOWELL: Yes, yes, it's
15	both, it's both. The guidance on group travel
16	is still being formulated, but I do believe
17	the FACAs are going to be held aside as
18	exceptions to that. Well, yes, we ran into a
19	little bit of trouble. But - so, I guess what
20	I'm saying is as an alternate site, it should
21	almost always be the Silver Spring area.
22	CHAIR WELLSLAGER: Okay. So, the

1	
	Page 149
1	decision's then going to be made that Silver
2	Spring will be our back up. And if we can
3	move down to New Orleans in the fall of this
4	year, I would like to propose the Silver
5	Spring meeting be the spring meeting next
6	year, and work from that. So, would people -
7	Jeff?
8	MEMBER CAROTHERS: I just had a
9	question about Silver Spring. Do we have any
10	stakeholder - I mean, obviously we have
11	government stakeholders. Is there any other
12	stakeholders in the Silver Spring area? I
13	mean, this was probably one of the best
14	meetings we've had with stakeholders, so
15	that's a part of it.
16	CHAIR WELLSLAGER: Well, okay, let
17	me rephrase that. Instead of Silver Spring,
18	we could go to Annapolis, or Baltimore, or,
19	you know, some of the surrounding areas. I'm
20	just - I'm using that as a geographic location
21	right now. But, Annapolis would probably
22	work, and that wouldn't be a problem there.

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1	We've got BoatUS that we might actually have
2	them help facilitate something there. So,
3	that could be a possibility.
4	Those in favor of going to the
5	D.C. Metro area for our alternate site, and/or
6	spring meeting in the spring of 2013, can I
7	see a show of hands for that? And discussion,
8	please, I'm sorry.
9	MEMBER KUDRNA: I would suggest,
10	instead of showing it as an alternate, show a
11	two meeting schedule.
12	CHAIR WELLSLAGER: Say again.
13	MEMBER KUDRNA: Show a two meeting
14	schedule, being New Orleans, and the second
15	meeting, spring meeting, being the D.C. area.
16	CHAIR WELLSLAGER: Okay.
17	MEMBER KUDRNA: And then if it's
18	rejected because of budget, we'll just flip.
19	But, the argument is, it would be much better
20	to be in D.C. in the spring than in the fall,
21	because you'll have a new Congress in place,
22	and it'd be a more effective meeting.

Page 151 CHAIR WELLSLAGER: 1 Okay. So, the 2 suggestion was to have a two meeting schedule, the first of those being in New Orleans in the 3 4 fall, with the spring meeting being in the 5 D.C. area. And if that were to fall apart, 6 the meeting in the fall would be in the Silver 7 Spring area as an alternate. 8 MEMBER KUDRNA: Yes. 9 CHAIR WELLSLAGER: Could I have a second on that? 10 11 MEMBER CAROTHERS: You may. 12 CHAIR WELLSLAGER: Very good. Those in favor of that, a show of hands? 13 Those against it? All right then, we will do 14 that. New Orleans will be the next site 15 16 provided we get people to work with it. 17 Now, we tried something different 18 this time. We went about with an agenda. We 19 had site visits, which wasn't new. But, we 20 had stakeholders, and then we had stakeholder 21 breakout sessions, where we were able to get 22 down and talk to the users individually, and

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1	formulate a list of needs and praises.
2	I thought this was good. Does
3	anybody have any feelings that they would like
4	to voice about how the agenda worked, and
5	possible modifications? Larry?
6	MR. MAYER: Yes, I'd like to make
7	a suggestion, should you have breakout
8	sessions again, and I would suggest that the
9	committee be issued this nice vests outside -
10	(Laughter)
11	MR. MAYER: - with different
12	colors, so you know which group we're in.
13	CHAIR WELLSLAGER: Color
14	coordination, all right. How about if I get
15	a beanie hat with a propeller? We could just
16	have different color propellers. We could do
17	that.
18	MEMBER FIELDS: I liked it. I
19	thought it was very good.
20	CHAIR WELLSLAGER: You did?
21	MEMBER FIELDS: Yes, the one on
22	one with them, we thought that was very good.

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1	CHAIR WELLSLAGER: It was
2	beneficial, and I think the users, instead of
3	sitting back on the outside looking in, having
4	a chance to say, you know, this is something,
5	in an individual setting, a bit more intimate
6	setting, worked out well. So, yes, I was
7	pretty hip to that thing. It was awesome.
8	MEMBER BRIGHAM: Yes, I think
9	certainly very positive. The challenge is how
10	you package the information. And you can use,
11	actually, specific themes or a sentence, or
12	something in the letter. "The stakeholders
13	from this panel said, or from this group said
14	this."
15	CHAIR WELLSLAGER: Yes.
16	MEMBER BRIGHAM: But, the
17	packaging of the whole of the information is
18	a little tricky. I think we should cherry-
19	pick which we are comfortable with, and HSRP
20	like you tried to do a few minutes ago -
21	CHAIR WELLSLAGER: Right.
22	MEMBER BRIGHAM: - and pick out a

Page 154 1 few that we might report to the administrator. 2 We'll always have the historical record of all the stuff we did, and we should write it up 3 and have it, what we did here. And it's a 4 5 trial run, so the next time if we go to New Orleans, we'll be a little more attuned to how 6 7 to do it, and what we want out of it. So, I 8 think it was very positive. 9 CHAIR WELLSLAGER: Yes, the first 10 step is always the hardest one to make, and that's going to be definitely true with this 11 12 situation. Joyce, do you have something you 13 want to say? 14 I was just going MEMBER MILLER: 15 to say I thought it worked well. I made the suggestion before that some introduction of 16 17 what's being done in the area, at an early time in the meeting, would be useful for us. 18 19 CHAIR WELLSLAGER: Okay, okay. 20 MEMBER FIELDS: As a new person on 21 a panel, it would have been nice to have a 22 little bit more of an introduction. We kind

	Page 155
1	of started off really cold. I don't know
2	about the other people who were new on the
3	panel, but I had not talked to anybody, so I
4	wasn't really totally kind of clued in as to
5	some of the previous things that you had done,
6	that the panel had done.
7	You keep talking about the five
8	most wanted, or the ten most wanted, or
9	whatever. I will go back now and search
10	through the panel stuff, and see if I can't
11	find that, but it would have been nice to have
12	some of that historical information, whether
13	it came to us in email or however, before I
14	got here, or at least at the beginning of it.
15	CHAIR WELLSLAGER: Well, the only
16	problem - I officially didn't know who all the
17	new panel members were -
18	MEMBER FIELDS: Okay.
19	CHAIR WELLSLAGER: - because you
20	had not been sworn in yet. And I, because of
21	that, really didn't have any knowledge of who
22	to send anything to. And I think you've got

	Page 156
1	a very good point. And had I known, that's
2	something that -
3	MEMBER FIELDS: Well, maybe -
4	CHAIR WELLSLAGER: - I probably
5	wouldn't have done, but I should have.
б	MEMBER FIELDS: Yes, maybe it's
7	something that you could have put together, or
8	maybe Kathy could have sent to us. I don't
9	know what the legalities are just yet, of your
10	contacting the new people on the board. But
11	certainly, Kathy could have given us
12	something. And she was very helpful, don't
13	get me wrong. She was very helpful in trying
14	to answer the questions that I had in
15	preparation to come to the meeting.
16	CHAIR WELLSLAGER: Right.
17	MEMBER FIELDS: Because I did talk
18	to her a couple of different times. But, it
19	just would have been, I thought, a little bit
20	more -
21	CAPT. LOWELL: Yes, we'll take
22	that down as an improvement item, without a

	Page 157
1	doubt. And perhaps we - I don't know whether
2	it's actually included in our welcome aboard
3	letter at this point, but all of the
4	information about the HSRP is on the website.
5	We didn't really go over FACA law
6	and what it means, but a lot of that is
7	applied as a transparency initiative, so that
8	all the discussions, which is why I have a
9	court reporter here, are required to be
10	logged, and required to be made available to
11	a broader audience.
12	Nothing is really secret here.
13	You know, the Sunshine Law Act applies. All
14	of the outputs are available on the HSRP
15	website, and we can provide that to all, you
16	know, the URL to everybody, and we need to
17	probably do a better job on the welcome aboard
18	letter, letting you know that these
19	information resources are available, and they
20	should be reviewed.
21	MEMBER FIELDS: In all fairness to
22	Kathy, she did give me that. When I asked her
	Neel P. Gross & Co. Inc.

	Page 158
1	about it, she suggested that I could go to the
2	website and take a look, but there's a lot of
3	stuff there. I wasn't quite sure where to
4	start.
5	CAPT. LOWELL: Yes, there's a lot.
6	MEMBER FIELDS: And so, my point
7	is, as you're putting together the agenda for
8	the new people, you could have maybe given us
9	some idea of what to expect for the meeting.
10	That would have been useful. Maybe nobody
11	else feels that way, but I do.
12	CAPT. LOWELL: Well, hopefully
13	when we do this, you know, we bring on new
14	members about five at a time is the way we
15	typically operate, and maybe there's a half a
16	day maybe before the first meeting where we
17	can go over some history or something.
18	I don't know how we could play
19	that out, but we'll take a notice on how to
20	onboard people a little bit - in a little bit
21	more formalized, information-rich way.
22	MEMBER DIONNE: I usually go to

	Page 159
1	the website just to look for specific things,
2	but - so, I'm assuming there is not like an
3	orientation button. But, you could patch this
4	stuff up and just add it to the website.
5	One thing I was - getting back to
б	the discussion about the stakeholders, if we
7	are - once we find where we're going for the
8	next meeting, there may be specific types of
9	stakeholders we want to invite, based on the
10	discussion we've had at this meeting.
11	I was thinking about the ferry
12	system in New Orleans, which is rather
13	amazing, and if we wanted them to start
14	collecting data for us, it might be a good
15	idea to bring one of those people on - some of
16	those folks on board for the next meeting.
17	CHAIR WELLSLAGER: Okay. Lawson?
18	MEMBER BRIGHAM: Yes, a more
19	procedural thing, we did use stakeholder
20	discussions, and we have these lists of
21	points. And I'm sure I'll get a request here
22	from people I know in Alaska, to have that

	Page 160
1	list. So, do we clean up the list and put it
2	on the website? But, the problem with that is
3	we don't have consensus among the panelists.
4	So, we do these activities
5	transparent out in the open here, and that's
6	available information, and it's, you know,
7	it's brainstorming. It's points. It's not
8	any policy statements or anything. So, is
9	that available to the public? I think it is
10	actually.
11	CAPT. LOWELL: Actually, the
12	output of work groups do not fall under FACA
13	law.
14	MEMBER BRIGHAM: Not the working
15	groups, we just did open stakeholder public
16	discussions. Not necessarily closed workshop,
17	working group panelist things, but -
18	CAPT. LOWELL: It's in the public
19	forum, so -
20	MEMBER BRIGHAM: The last
21	activity, I wonder what that -
22	CAPT. LOWELL: I think we will

Page 161 1 probably create a summary. Obviously, the 2 court reporter was not in all four meetings, so this is going to be a bit of a challenge. 3 Maybe we should talk to one of our FACA 4 5 advisors as to how we should make that 6 information available. 7 But, the fact that the breakout 8 sessions might allow us some latitude to make 9 it very much a, you know, a brainstorming free flow of information, and then the report-outs 10 is really what becomes to be on the record. 11 12 Yes, I was just MEMBER BRIGHAM: thinking of, we could clean up the lists, 13 since it was a public discussion, it's not 14 attribution, so you don't identify who said 15 what, I don't know. Because we did it in an 16 17 open forum, in a public forum, people might 18 ask if they could have access to it, and it 19 would be good to say yes, this transparency, 20 I don't know. It requires some clean up of 21 each of the teams. Maybe we could do it. 22 MS. WATSON: Chair? Lawson?

	Page 162
1	After every meeting, we post all the
2	presentations. We will also post this
3	information from the stakeholder breakouts,
4	because it is public information. But, we
5	just need maybe a couple of weeks to flesh it
6	out, make it clean. And any user can go to
7	the website and they'll be links, they'll
8	click on it, and it'll pull it up.
9	CHAIR WELLSLAGER: Okay, so she
10	just answered the question there. It will get
11	cleaned up a little bit. But it will be,
12	since it's FOIA -
13	MEMBER BRIGHAM: So, it doesn't
14	necessarily need consensus of the panelists,
15	because not all HSRP members were, you know,
16	a couple in each one. So, it doesn't need
17	actually a - only what we need is which ones
18	we picked to put in the letter, right? So,
19	it's just the little nuances of procedure.
20	But, the answer is yes, it's
21	public information, and people will use it.
22	You know, there's a great list of stuff that

	Page 163
1	we had, and the other - okay, that answers it
2	I think, Kathy.
3	MS. WATSON: If the panel decides
4	to list for each breakout, the items, like the
5	Arctic 26, we can put that on there. And
6	then, if the Arctic breakout wants to do a
7	little paragraph summary or whatever, we can -
8	however you want to post that information, we
9	can post it on the website.
10	MEMBER DIONNE: It sounds like
11	each workgroup had a slightly different
12	context for whatever breakout session they
13	were working under. So, you know, that would
14	be good to add to the front end of the -
15	whatever the output that gets posted.
16	But, along with Lawson, I think
17	these people within these groups are going to
18	make good use of this information, because
19	it's coming from a fairly high-level source.
20	MEMBER KUDRNA: Two comments.
21	One, I think as long as it's labeled as a
22	product of that forum, and that recognizes

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	Page 164
1	that the actual letter that comes from our
2	HSRP might not include all of those things, or
3	might edit it, I think that's perfectly
4	appropriate.
5	But, the other thing I was going
6	to request is, now that we're all legal, to
7	get listening and contact information for the
8	other panel members, and the key NOAA
9	staffers, so that if we needed to contact
10	someone, or email, or be in contact, that
11	would be very useful.
12	CHAIR WELLSLAGER: Go ahead.
13	MS. WATSON: Frank, to respond to
14	that, we are working to redo the HSRP website.
15	After I get back, we've got some people that
16	are helping us there in Coast Survey. We're
17	going to make it more user-friendly. We're
18	going to also have like a SharePoint, where
19	all of you as the panel members, can click on,
20	and you can communicate with each other, you
21	know, via kind of like a blog or that kind of
22	format.

Page 165 1 MEMBER KUDRNA: As Bill knows, if 2 you're from Chicago, and you're in the Witness Protection Program, it's kind of hard to find 3 4 you. 5 (Laughter) MEMBER KUDRNA: But, we'll make 6 7 some arrangement. 8 CHAIR WELLSLAGER: We know where 9 he is. MEMBER MILLER: Kathy, an updated 10 11 email list soon would be very useful, just -12 MS. WATSON: Well, it is updated. 13 When you type - when I type in HSRP and new 14 panel members, it has all of you on there. 15 MEMBER MILLER: Oh, okay. All 16 right, good. 17 MS. WATSON: But, I will send you all a full contact list. 18 19 CHAIR WELLSLAGER: Thank you. All 20 right, we've talked about it, but the working 21 groups, some people went off, they're still 22 around, I would like very much, and appreciate

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	Page 166
1	very much, if the new members would consider
2	helping out with either the legislative policy
3	initiatives, the strategic mission, central
4	effectiveness, or emerging Arctic priorities.
5	Because these have started, and
6	we're not done. We've still got issues to
7	discuss, and things needs help. People are
8	good. Ideas are good. And I request that
9	each of you select one of these, and contact
10	me please, you'll have my email address, as to
11	which one you'd like to be on.
12	I will forward that to the Chair,
13	and then when working group meetings are held,
14	which are usually done by conference calls.
15	You'll be included in that, and you'll be able
16	to follow up with the policy on that.
17	(Off-mic comment)
18	CHAIR WELLSLAGER: Three.
19	(Off-mic comment)
20	CHAIR WELLSLAGER: Yes, yes.
21	CAPT. LOWELL: Then there's that
22	fourth little, mini working group. I don't

	Page 167
1	know what they call it, the one that's
2	actually putting together a response for the
3	SAB. So, there's three standing working
4	groups, and then one very short-term work
5	group.
6	CHAIR WELLSLAGER: Right. Lawson?
7	MEMBER BRIGHAM: When we started
8	out, we discussed the working groups. The
9	language of the one on the Arctic was a
10	working group on Arctic infrastructure. And
11	somehow, in the mystery of our discussions,
12	it's turned out to be emerging priorities.
13	Arctic emerging priorities is
14	pretty broad. Infrastructure is a little
15	narrower. An infrastructure in the language
16	of the Arctic people is from charts, to ports,
17	to even charts, and even pilot house education
18	is infrastructure.
19	But, I don't know, maybe keeping
20	it broad is the way to go. But, it might be
21	harder to narrow it down to NOAA specific
22	hydrographic services kind of issues, whereas

	Page 168
1	infrastructure - I don't know. It's all.
2	We'll play with the terminology and get back
3	to you.
4	CHAIR WELLSLAGER: Okay.
5	MEMBER BRIGHAM: It's - maybe it's
6	just nuance in the thing, I don't know.
7	CHAIR WELLSLAGER: Keeping the
8	scope narrow instead of broader might be good.
9	And if it needs to be infrastructure, I don't
10	have a problem with that.
11	MEMBER BRIGHAM: Well, you saw in
12	our discussion of emerging issues had 27. In
13	a couple of hours, we could have probably had
14	100 if we just kept going. So -
15	(Laughter)
16	CHAIR WELLSLAGER: It sounds like
17	a chain reaction.
18	MEMBER BRIGHAM: But, our working
19	group needs to kind of focus in on what are
20	the practical, more narrower we call it,
21	infrastructure issues, I think. One more
22	question, I'm sorry, Matt.

	Page 169
1	CHAIR WELLSLAGER: Okay.
2	MEMBER BRIGHAM: So, these will be
3	standing committees for a while anyway. We're
4	not decommissioning any. We're going to just
5	continue on our way.
6	CHAIR WELLSLAGER: Yes. You know,
7	a lot of what we've done today, and well for
8	that matter, this week, has been focused
9	primarily on Alaska and Alaskan issues. If
10	anybody has any thoughts or concerns or things
11	that they would like to discuss about non-
12	Alaska priorities or topics, and you'd like to
13	bring that up right now, this would be a good
14	time. Joyce?
15	MEMBER MILLER: It was mentioned
16	briefly in some of the Alaska discussions, but
17	looking at the House mark, and the reinsertion
18	of the NRTs back into the budget by that, I
19	was - when I saw that the NRTs were being
20	zeroed out, I was concerned. And I don't know
21	if other members of the panel think it's of
22	concern, but I think it limits Coast Survey's

Page 170 flexibility. And certainly what we've seen from other meetings, where the NRTs have been active, it's an incredibly good PR - I hate that term. But, it has been a very effective way to show how much Coast Survey can bring in a disaster and so forth. And Coast Survey should use all assets, such as contractors and so forth. But, I just think the NRTs give them a lot of flexibility. Now, whether they need six or four or whatever, you know. But, I just would make the suggestion that in our letter to Dr. Lubchenco, that we might mention that. I mean, if there's consensus in the group that that's a cause for concern for the NRTs, and that we are for the navigation services, and that we might recommend that it be put back in the budget if it were zeroed out this year, or if it is, you know, whatever.

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Page 171 CHAIR WELLSLAGER: Capt. Lowell, as the DFO, is that something, as a recommendation, that we could make to Dr. L? Does she have any capabilities of getting something like that added back into the budget if it's zeroed out? CAPT. LOWELL: Well, I think Dr. Sullivan explained the landscape fairly well the other day. You know, we're at a point where the Pres Bud went forward with specific language to eliminate the NRTs. They also took away all the funding for the NRTs. So, fundamentally what we were faced with, is a reduction in capacity, the ability to collect data, the ability to respond to things. That doesn't mean it doesn't go away, we still have a fleet, we still have a contract budget. But, we have a reduction in capacity. We now have two marks that have come back, one from the Senate, one from the House. Both have disagreed with the	1	
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21 come back, one from the Senate, one from the	19	reduction in capacity.
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22 House. Both have disagreed with the	21	come back, one from the Senate, one from the
	22	House. Both have disagreed with the

	Page 172
1	President's budget elimination of the NRTs.
2	Each one approached it slightly different.
3	Off the top of my head, I don't believe the
4	Senate put money back in, so they - obviously
5	it creates a bit of a challenge for us -
6	(Laughter)
7	CAPT. LOWELL: - to allow us to
8	keep them, but then not give us any funds for
9	them. But, then the House marks specifically
10	put back \$1.4 million, and the actual budget
11	removal was \$2.3 million. I'm kind of going
12	off the top of my head here. So, don't quote
13	me on the exact numbers, but it kind of sets
14	the stage.
15	So, the next thing that has to
16	happen, is that they'll kind of combine the
17	marks, and we'll get a final budget. We don't
18	know exactly what that's going to look like.
19	But, based on, you know, those differences, my
20	guess is there will be language that says,
21	"Keep the ability to use NRTs in the toolbox
22	of Coast Survey."

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	Page 173
1	It's a little unclear as to
2	exactly how much funds might be in the
3	conference mark, but that - I mean, we're
4	still out there at this point. We don't know
5	exactly what's going to happen, but a letter
6	from this FACA panel to the administrator on,
7	you know, how the President's budget was
8	crafted, is completely - I mean that's what
9	the FACA is for. So, you're providing advice
10	to her.
11	MEMBER HANSON: Matt?
12	CHAIR WELLSLAGER: Yes, Bill?
13	MEMBER HANSON: If I could just
14	follow up just so we can understand a little
15	bit clearer. The assumption is that your
16	office did request the NRT be funded. And
17	then the second question would be, did NOAA
18	leadership include that in their budget
19	request? And at what point was it zeroed out?
20	Was it zeroed out by OMB, or was it zeroed out
21	before that?
22	CAPT. LOWELL: I'm in the position

Page 1741where all I can tell you is the President's2budget contained the language of the removal3of the NRTs, and did not include the funding.4And as such, you know, that's - we're members5of the executive branch, and we stand behind6the President's budget.7VICE CHAIR PERKINS: My8understanding was it was GAO that took it out.9CHAIR WELLSLAGER: GAO?10VICE CHAIR PERKINS: Yes. The11issue came to my table because there's a12different association. And questions were13asked, whether a different association that14I'm involved with was responsible for removing15it. Then when we looked into it, the other16association, the information we saw, it17appeared that it was removed by GAO.18MEMBER DIONNE: So, GAO is the19last word on the President's budget?20VICE CHAIR PERKINS: Well, the21Congress has the last word. But, you know -22MEMBER DIONNE: Okay, yes. But,	1	
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	20	VICE CHAIR PERKINS: Well, the
22 MEMBER DIONNE: Okay, yes. But,	21	Congress has the last word. But, you know -
	22	MEMBER DIONNE: Okay, yes. But,

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1	what they've submitted to Congress? GAO?
2	CAPT. LOWELL: A quick
3	clarification. I think Bill hit the nail on
4	the head here. There is back and forth
5	between the program and NOAA, then NOAA and
6	Department of Commerce, then Department of
7	Commerce and OMB, and then it becomes a
8	President's budget request.
9	GAO may or may not have engaged in
10	that process. You know, they have
11	considerable latitude in the games that they
12	wish to play in, and - but, I don't have any
13	specific information about that.
14	VICE CHAIR PERKINS: The challenge
15	now would be to work at - well, it's in
16	conference committee. Because if it's in the
17	House mark, as we've seen, and it's not in the
18	Senate mark, the only opportunity for
19	restoration is in the conference committee.
20	CAPT. LOWELL: That's the way the
21	government operates.
22	MEMBER MILLER: And, Scott -

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1	VICE CHAIR PERKINS: I guess what
2	I'm getting at, is putting it in the letter to
3	the Director isn't going to solve the problem.
4	MEMBER MILLER: Well - but, it
5	could be for next year. If it doesn't get
6	resolved this year, it might be something that
7	could be different next year. That's - you
8	know, whether - I don't know whether, you
9	know, the administrator supported it or not,
10	you know. We don't know where. But, it - I
11	don't know if it will have any effect or not.
12	MEMBER HANSON: To Joyce's point
13	though, is to do this year by year based on a
14	conference committee agreement, is not helpful
15	to manage a program. And it would be very
16	helpful for you guys to know that year after
17	year, you don't have that to rely on. It's
18	going to be part of your program.
19	And that's something we need to
20	make the case for NRT outside these four walls
21	here, that we think it's important, and not
22	just in a letter to the administrator, but to

1	
	Page 177
1	the folks we deal with on a day to day basis.
2	CAPT. LOWELL: And just so that
3	everybody is clear, is, you know, all of the
4	executive agencies take note of what is in
5	those marks, both the House, the Senate, and
6	the conference. And we weight that into how
7	we originally put our - even our own office
8	budget together, is we look at what is the
9	intent of the monies that are provided. And
10	so, it's never ignored.
11	CHAIR WELLSLAGER: Yes, I'm sorry,
12	Frank, go ahead.
13	MEMBER KUDRNA: First of all, if
14	we think it's important, it should be in the
15	letter, and it should go back to the
16	administrator. And as Bill suggested, we
17	should also personally, or through our
18	organizations, support that. We're not a FACA
19	member privately.
20	But, the budget scenario may be
21	worse than Captain Lowell described. I mean,
22	you have two marks in the House and Senate,

Page 178 and something will come out of the conference 1 2 committee, but there still is this issue of the Congressional agreement to 1.3 trillion 3 dollars worth of cuts, and that falls into 4 5 something they call sequestration. 6 And the likelihood, or what I hear 7 in the likelihood is that there will be a 8 continuing resolution for a while, and then they're going to have to deal with those cuts. 9 And the new budget starts in October, so if 10 they don't get around to this until February 11 12 of next year, you'll be spending at the old 13 rate for five months, and then having to deal 14 with those cuts that could be pretty 15 devastating to a whole series of programs of 16 NOAA. 17 CAPT. LOWELL: Well, the good news 18 is they never gave us the full amount we had 19 last year to spend on in a continuing 20 resolution. 21 (Laughter) 22 CAPT. LOWELL: So, obviously,

Page 179 we're always told to spend on some percentage 1 2 less, simply because we don't know what the 3 budget is. So, I just want to make sure that 4 was clear, and that we wait it out on pins and 5 needles as to the final resolution. CHAIR WELLSLAGER: 6 Lawson? 7 MEMBER BRIGHAM: Would you 8 entertain an Alaska-specific point for the 9 letter? You asked for other issues, but I -10 CHAIR WELLSLAGER: Oh, sure. MEMBER BRIGHAM: Yes, could we put 11 12 something in this letter voicing some concern or related to the Port of Anchorage, and the 13 14 navigation depths, and what we heard? Out of the whole meeting, I thought that was - living 15 16 here, and having been down to the port, but 17 standing there and looking at shoaled water, and talking to captains, and hearing about the 18 19 challenges, and then hearing the kind of soft 20 federal response from our friends in the Corps 21 of Engineers, that it didn't seem to be a 22 pressing issue, that they might get around to

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ying. And then someday in the future we
do something about it. I don't know.
As members of the panel, I say
is a serious issue, security, economic
es. And I don't know how you - what the
istrator does with that information. Is
seful? I don't know. Maybe ask Captain
l whether - should we slip something like.
in there? Is it useful, helpful, or a
or?
CAPT. LOWELL: I would always
on the panel to not dive down into the
too much, because the administrator of
would probably not want to weigh in to a
fic small, you know, issue between the
Corps and in this case the Port of
orage. I think she would be very
fortable in doing that.
However, if you raise it up to
hing like we can discuss around here,
er federal coordination, put it into
hing that she can act on without, you

	Page 181
1	know, causing any kind of internal issues,
2	would be probably more useful. In other
3	words, I would avoid diving down into the
4	weeds and asking her to do something that's
5	probably outside of her -
6	MEMBER BRIGHAM: Yes, I guess I
7	should start with the report that we got some
8	stakeholder input direct from the mariners
9	that said there's a serious, or very
10	potentially problem here. And then, I weighed
11	in with some view of the DoD and security
12	issue, and said, "Hey, we bring large, you
13	know, support vessels in here, and MSE ships."
14	And so, I don't know. I just -
15	maybe we could keep it at a higher level. I
16	don't know. I think it's part of our remit
17	here. But, I don't know. It's up to the
18	group really.
19	MEMBER JAY: I think in the past
20	we have made some pretty specific
21	recommendations about individual partners. I
22	wasn't on the committee, but in New England,

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1	you know, there was quite a response to the
2	problem, and was it Penobscot Bay? I can't
3	remember, I wasn't here.
4	But, in this case, it sounds like
5	the problem is the Corps of Engineers, and
6	we're reporting to NOAA. And so, even if we
7	were going to report on this particular
8	situation, what is the action item? I mean,
9	better coordination, that sounds, you know,
10	like something that a, you know, that the NOAA
11	administrator can act on. But, getting the
12	port dredged is not, if I understand this
13	correctly.
14	MEMBER DIONNE: We might want to
15	backcheck on some of that information too,
16	because the - I forget her name, I'm not sure
17	I caught it - the woman who was here from Army
18	Corps told me that the harbor has maintenance
19	dredging every spring. So, I don't know if
20	that's just within the harbor and not the
21	approach, but we might want to just check on
22	that too.

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1	CHAIR WELLSLAGER: I missed that.
2	She said the harbor was going to be dredged in
3	the spring?
4	MEMBER DIONNE: Maintenance -
5	every spring they do a maintenance dredge.
6	CAPT. LOWELL: We're talking about
7	three specific areas.
8	MEMBER DIONNE: So, that doesn't
9	cover the - in the approach, is what we were
10	talking about. Okay.
11	MEMBER MILLER: Well, the other
12	thing that I was concerned too, but the 30
13	foot tide range, and that they can get - it
14	narrows their range of when they can get their
15	ships in and out for sure. However, there's
16	only, I think they said four ships per week,
17	in and out of here, in terms of the big
18	container vessels, which are probably the ones
19	that are of concern.
20	So, they got windows they can get
21	in and out. I guess, if it were a real
22	serious danger to navigation, I'd be very

	Page 184
1	concerned. But, I'm not quite sure how
2	serious it is. I mean, that would be one
3	question I would ask.
4	MEMBER BARBOR: I think in either
5	an aside, or maybe in her public comments, we
6	in some sense agreed that a potential
7	recommendation might be the encouragement of
8	coordination with the new Chief of Engineers,
9	who I guess is newly appointed. And that may
10	prove to be a, you know, a way to deal with
11	this.
12	MEMBER HANSON: And you also have
13	a new number two guy, Mike Walsh, who's just
14	been there for a few months as well. So,
15	there's been some recent changes at the top
16	that would be very good to weigh in at.
17	CHAIR WELLSLAGER: So, Lawson, I
18	think what we could do instead of specifically
19	stating something like that, coordinate and
20	make a recommendation to include or work with
21	the - is it the Chief Engineer - with the
22	Corps of Engineer on specific projects that

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1	may need consideration. Or what, Joyce?
2	MEMBER MILLER: Coordination. And
3	just say that it was brought up as a
4	stakeholder issue in Anchorage, something like
5	that.
6	CHAIR WELLSLAGER: Okay. What's
7	the panel's feel on the NRTs? Should we
8	include something about that in the letter?
9	MEMBER BARBOR: If there is a
10	consensus that it is a concern of the panel,
11	I think a view with concern is a valid point.
12	And it doesn't say reinstate or whatever, but
13	it's viewed with concern.
14	CHAIR WELLSLAGER: All right, we
15	can do something then.
16	MEMBER HANSON: It's one of the
17	things we've identified that NOAA does well.
18	I think it's important for us to advocate for
19	that every chance we get, and make sure it
20	stays in the budget request from NOAA.
21	CHAIR WELLSLAGER: Okay, one other
22	thing. This is Captain Lowell's final meeting

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1	as the DFO. There will be a transition.
2	(Laughter)
3	CHAIR WELLSLAGER: I'd like to
4	thank him for a job very well done. It's been
5	three years, right?
б	CAPT. LOWELL: That's right, a lot
7	of meetings.
8	CHAIR WELLSLAGER: Yes, felt like
9	10?
10	CAPT. LOWELL: Not that many.
11	There have been a lot of these meetings.
12	CHAIR WELLSLAGER: There are
13	things taking place right now in the Senate
14	for confirmation. And once confirmation is
15	complete, the transition of the DFO will then
16	occur. In the meantime, I think there's a
17	deputy that you have, or is - I'm not really
18	sure how the transition actually works.
19	CAPT. LOWELL: I'm not sure we
20	understand exactly how the transition works.
21	But, what I can tell you about the position,
22	number one, Kathy just had up the charter of

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1	the FACA, the HSRP, and what's in the charter
2	is the Director of Coast Survey shall serve as
3	a designated federal official. So, that's
4	kind of in the charter of the commission.
5	In the case of the Director of
6	Coast Survey, something really wonderful has
7	happened, is the secretary of commerce maybe
8	six months ago, don't quote me on the time
9	line here, actually recognized this position
10	as one of importance and -
11	MS. WATSON: Here it is, right
12	here.
13	CAPT. LOWELL: - importance and
14	responsibility. And what that allowed them to
15	do, was raise the grade of the individual in
16	the position. So, my replacement is not going
17	to be a captain, it's going to be what was
18	referred to as a flag officer or a one-star
19	admiral.
20	So, that is actually showing
21	several things that I hope the panel member
22	takes note of, is that NOAA and Department of

	Page 188
1	Commerce have recognized the importance of the
2	broader nav services, to not only NOAA, but to
3	the economic well being of the nation. So,
4	that's a really good thing.
5	Now, of course, all things
6	government, there's an administrative
7	overhead. And on the bad side, is selecting
8	a flag officer requires significantly more
9	administrative overhead.
10	And that's put us in a position
11	where I'm retiring, and although Captain Glang
12	has actually gone through a flag officer
13	review board, and has been selected, and all
14	the paperwork has gone up through Commerce, to
15	the White House, and it's been announced, it's
16	on the Federal Register, and it's on a docket
17	for Senate review, that's the status of
18	Captain Glang.
19	So, now we have a position where
20	the director is gone, the new director cannot
21	assume the roles of the position until Senate
22	confirmation, and shouldn't look like they're

	Page 189
1	acting in that role because the Senate doesn't
2	like that. And they have not concurred.
3	So, we have a little bit of a gap
4	here, and we don't know what that gap is going
5	to look like. We don't know how long it is.
6	Is it this week or next week? It's supposedly
7	on the calendar for the end of this month, and
8	I don't know the date. For some reason 25th
9	comes to mind.
10	But, if they don't act at that
11	point, then we're getting closer to the
12	election, and you know, these kind of
13	administrative activities that the Senate is
14	supposed to do, kind of drop in importance.
15	So, we don't know exactly how that's going to
16	play out.
17	So, why did I explain all this?
18	Number one, is to let everybody know that
19	Commerce has recognized the importance of the
20	nav services. Number two, is we do have a
21	little bit of a gap. Katie Ries, who's my
22	deputy over at Coast Survey, should step up to

	Page 190
1	be acting director of the office of Coast
2	Survey until such time as the Senate acts on
3	the paperwork that's on their docket at this
4	point.
5	How things could fall out over the
6	next couple of weeks or months, it's really up
7	in the air at this point. But regardless, if
8	there is no official director of Coast Survey
9	- well, actually, I guess we'll have to get
10	Kathy trained up to be the DFO, designated
11	federal official.
12	And I know - we've actually
13	utilized some of the other office directors,
14	or we attempted to utilize the other office
15	directors as DFOs in the past. We were
16	corrected by the lawyers, that because they're
17	non-voting panel members, so the director of
18	CO-OPS, and the director of NGS, are
19	officially panel members, they are precluded
20	from the ability to serve as DFO.
21	So, there isn't - I actually
22	leaned on Juliana once, only to be told that

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1	that was something we couldn't do anymore.
2	So, we're trying to figure that out. I think
3	eventually, if all goes right, Gerd, who has
4	actually gone through the DFO training, when
5	he is selected, when he assumes the position,
6	he will be the DFO.
7	But, if there is no DFO, or the
8	next meeting occurs and there is no full time
9	director of Coast Survey, there might be an
10	ability to put in an acting DFO, somebody who
11	has gone through the training, and serves that
12	purpose.
13	So, we're a little bit on the
14	loose side here. We don't know exactly how
15	it's going to play out. So, I just wanted to
16	let everybody know. But, Gerd's about as well
17	trained as we can get him, so.
18	CHAIR WELLSLAGER: Thank you.
19	That's it. No, that's perfect. All right.
20	Is there any other business that we should
21	address at this time?
22	MS. WATSON: Chair? Oh, I'm

	Page 192
1	sorry. Just logistics, because we said the
2	fall meeting. And what I would do, is after
3	I get back, is I'll look at kind of like the
4	calendar.
5	And usually for budgetary or
6	acquisition purposes, late October, early
7	November is the best time for FY `13. So,
8	I'll actually go in there and look at like
9	maybe propose - I'm presuming a two day
10	meeting in Norfolk, correct?
11	CHAIR WELLSLAGER: New Orleans.
12	MS. WATSON: New Orleans. Excuse
13	me, New Orleans, that's usually what we do?
14	Okay. So, I'll propose like one week, and try
15	to get the majority. If not, a second, okay?
16	CHAIR WELLSLAGER: Just a second.
17	Ken?
18	MEMBER BARBOR: Following on your
19	initial statement there, I would recommend we
20	put in our letter a recognition of Captain
21	Lowell's service as DFO, and also the
22	acknowledgment that Commerce and NOAA have

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Page 193 elevated their rank of director of Coast 1 2 Survey. 3 CHAIR WELLSLAGER: Lawson? 4 MEMBER BRIGHAM: I just wanted to 5 thank Matt Forney for pulling together all of 6 the stakeholders, Kathy helping. But local, 7 Matt did a great job. He did a great job of 8 pulling the right stakeholders. We got a lot 9 of them to come. So, great job. Thank you. 10 (Applause) 11 CHAIR WELLSLAGER: Last piece of 12 business before we close the meeting, oh, I'm sorry, Michele? 13 14 MEMBER DIONNE: Yes, I just wanted 15 to thank you, Matt, for taking on the mantle of Chair for this group. 16 17 (Laughter) 18 CHAIR WELLSLAGER: Thank you. 19 MEMBER DIONNE: It was a great 20 meeting. 21 CHAIR WELLSLAGER: Thank you very 22 much.

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1	(Applause)
2	CHAIR WELLSLAGER: Public
3	comments. Does anybody here have something
4	they would like to address to the panel? I'm
5	sorry, I couldn't see you, yes? Have a mic.
6	MS. RIDGWAY: I know you've all
7	had a very long, and hopefully productive
8	meeting. And thanks again for coming to
9	Alaska. I'm really, really glad to see you
10	here.
11	I introduced myself earlier, I'm
12	Michelle Ridgway. In addition to some of the
13	other things I've spoken to so many members
14	about, I also serve on the Federal Advisory
15	Committee for marine protected areas on the
16	Coastal Marine Spatial Planning Subcommittee.
17	I know many members of that subcommittee are
18	very grateful for the work you're doing to try
19	to advance hydrographic survey, and release of
20	services through your work.
21	I also serve on the State of
22	Alaska's Cruise Ship Science & Technology

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1	Panel. We're wrestling with a lot of issues
2	related to navigation of Arctic ships, and
3	again, many people are very tuned in to what
4	you're doing, and very grateful for your
5	establishing of priorities for navigational
6	mapping.
7	On a very personal level, I'm a
8	marine biologist. I'm a lifelong Alaskan. I
9	pilot ships. I sail. I pilot submarines. I
10	pilot ROVs all over the state. And the work
11	that you're doing is extremely valuable to
12	establish priorities for improving, not only
13	safety at sea, but also our understanding of
14	the sea floor around here.
15	As an ecologist, I mentioned
16	earlier that we use habitat data to establish
17	our rockfish quotas. In a lot of Alaska, that
18	data is now coming from multibeam sitters that
19	are on many of the vessels that you have some
20	means to make recommendations for their
21	deployment schedules.
22	And more specifically, recently

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1	we've been wrestling with a very, very
2	difficult issue in the state. We have a dire
3	situation with regards to our king crab
4	populations across the Bering Sea. We have a
5	very low population of king crab. We've been
6	trying to understand why they're not
7	recovering.
8	And we recently did a pilot study
9	with NOAA while they were conducting a
10	navigational survey using standard protocols,
11	we asked the question, can the data from that
12	multibeam and backscatter actually help us
13	understand specifically where essential fish
14	habitat is for the baby king crab that don't
15	seem to be recruiting to maturity?
16	So, we ran the pilot tests up near
17	the Pribilof Islands on a contracted ship, the
18	sister ship of the Fairweather, and found out
19	that by using that backscatter component of
20	the multibeam survey, we were able to bang on
21	identify this special habitat, which is called
22	shell hash. It's crushed up seashells.

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1	But, that multibeam could very
2	clearly distinguish it from other habitats
3	that are not valuable to these juvenile crab,
4	and help us further our understanding of
5	what's going on with the ecology of that
6	species. So, there are many applications of
7	the work that you do.
8	I do have a couple of suggestions,
9	even though you've discussed your
10	recommendations. One, Forney recommended
11	earlier that - or suggested, that under this
12	Article 3, there's some agreement with the
13	industry to use more of the Shell's future
14	data.
15	There's a lot of data housed
16	currently at Department of Interior, BOEM.
17	They have a lot of data that was collected for
18	arctic bathymetry that exists there now. And
19	I would strongly encourage you to continue to
20	recommend, that as a means of gaining more
21	coverage efficiently, which is the name of the
22	game, be creative, be cost effective, to try

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1	to access that multibeam data that has been
2	already collected by the industry in the US
3	Arctic. You've seen the gaps, they're
4	massive. Let's try to fill those gaps as
5	efficiently as possible.
6	And my final suggestion is toward
7	the same end. National Science Foundation and
8	other entities, but primarily NSF, has been
9	fortunately funding a tremendous amount of
10	research in the US Arctic, the Bering Sea, and
11	the Gulf of Alaska.
12	We have the Healy. We have the
13	Tommy Thompson and other ships, that
14	fortunately are now equipped with multibeam
15	acquiring apparatus. They got great
16	transducers, great equipment. And I know this
17	is not within the purview of the
18	recommendations for the panel, but maybe as
19	you recommend to NOAA and IOCM, that they
20	continue to reach out and encourage NSF, to
21	encourage everyone that's funded with public
22	money, to continue to acquire multibeam data

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1	in such a fashion that it could be used and
2	incorporated into the surveys.
3	Even go so far potentially to
4	strategically request that they fill in gaps
5	in some of the highest priority areas for
6	navigation and safety. Thanks again for
7	coming up to Alaska. It was very nice to meet
8	all of you.
9	CHAIR WELLSLAGER: Anybody else?
10	Jon, you don't have anything to say?
11	(Laughter)
12	CHAIR WELLSLAGER: Thank you - oh,
13	Michele?
14	MEMBER DIONNE: So, based on that
15	comment, is there something that we're going
16	to - would that be a specific item that we
17	could add to our - okay. John's - thinking
18	it's too detailed?
19	CAPT. LOWELL: Well -
20	MEMBER DIONNE: I mean, just at
21	the agency level, some sort of -
22	CAPT. LOWELL: I was going to

Page 200 throw out IOCM and an update for this panel, 1 2 especially because of the large number of new members, would be very appropriate for the 3 4 next meeting. I think it's key to get 5 everybody up to speed on where we're at on IOCM. 6 7 We do have a new leader in place. 8 We're starting to put in place new policies 9 and procedures. We are working closely with NSF to - when they do collect data, that it's 10 preserved in a way, and delivered to the 11 12 archive in a way that other people can use it. 13 14 Now, how effective it is, and how we're measuring that, I'm not exactly sure. 15 But, I think it would be very useful for this 16 17 panel to get an update on IOCM - all the IOCM 18 activities that are underway at this point. 19 And now getting back to your specific 20 question, which was -21 MEMBER DIONNE: Well, I just 22 wanted to make sure we captured some of that

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1	comment - or I was asking, I guess, whether we
2	would capture the content of that comment in
3	our letter to the administrator.
4	CAPT. LOWELL: The question is,
5	what is she going to do with that information?
б	And that's more of a comment to the offices.
7	MEMBER DIONNE: She'd probably
8	talk to the folks at NSF, right? Yes,
9	whatever the appropriate destination is, it
10	would be nice to encourage, you know, again,
11	collaboration, communication with some of the
12	partner agencies that are - you know, we spent
13	a lot of time at this meeting talking about
14	all these different data streams hanging out
15	in different places, not being standardized,
16	all that stuff. So, it would be good to
17	capture a little bit of that.
18	CAPT. LOWELL: Well, you could
19	certainly put it in a letter, and her response
20	would say, "We are working closely with NSF,
21	and we have procedures in place."
22	MEMBER DIONNE: Right. And as far

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1	as you know, they're collecting the data in a
2	way that is acceptable to us?
3	CAPT. LOWELL: Yes. Which is very
4	important for that IOCM update, because, I
5	mean, there are new IOCM mapping standards
6	that are now published and available. There
7	are new programs, both with NSF and with non-
8	hydro NOAA ships, to collect multibeam data.
9	But, there's quite a bit to update the panel
10	on.
11	MEMBER DIONNE: And there are
12	people at NSF that automatically get this
13	information, right?
14	CAPT. LOWELL: Automatically get
15	this information?
16	MEMBER DIONNE: Yes, on an email
17	or, you know, the new standards you were just
18	saying, do the people at NSF that are involved
19	with the equipment that were installed on
20	these new boats, would automatically be in
21	that loop?
22	CAPT. LOWELL: Yes, there is an

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active National Science Foundation. It's
called Rolling Deck to Repository program,
where they're supposed to be collecting
multibeam data basically in any area of
opportunity.
MEMBER DIONNE: According to the
standards that just came out?
CAPT. LOWELL: According to the
standards, right.
CHAIR WELLSLAGER: Joyce?
MEMBER MILLER: That was - I mean,
this was some of the requests and discussion
in the panel. I think what the previous
speaker requested was - is probably
encompassed to some extent in our - in the
data collection panel. Yes, so.
CHAIR WELLSLAGER: Yes, sir?
MR. DASLER: You talked me into
it. Oh, good, it's still on. Yes, I would
just say in regards to IOCM, I mean, that was
one thing we pushed on the panel before, was
NOAA really, kind of take that first step in

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1	going forward in collecting data that's
2	valuable to fisheries. And I'd really like to
3	congratulate NOAA on now setting the standard
4	to collect also backscatter information.
5	So, that's really not needed for
6	charting, and it's an added effort. It's more
7	data that needs to be collected and archived,
8	but that's being done now with the contractors
9	and NOAA are offering backscatter information
10	that's being used.
11	And so, taking that first step, I
12	think is very valuable in getting others all
13	on board to meet the best standards for the
14	best available data, and could be used for the
15	most public benefit. And I think that's
16	really been great in moving that forward, and
17	I'd like to congratulate you on that.
18	And also, for everybody coming up
19	to Alaska, and looking at what's going on up
20	here, and the needs, and moving this forward
21	in the next few years with NOAA. I think
22	that's great. Thank you.

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1	CHAIR WELLSLAGER: Thanks, Jon.					
2	Well, I would like to thank all of you all as					
3	panel members, for making this a very					
4	memorable first meeting to chair. It was					
5	interesting, at times a little daunting. And					
6	I cut my teeth with it, so this was good.					
7	And I would like to also thank the					
8	public for attending this, because without					
9	your input, none of this would have been					
10	happening. This is very important and very					
11	helpful, so thank you.					
12	And Kathy, thank you very much for					
13	helping get everything together. You've done					
14	a wonderful job.					
15	(Applause)					
16	CHAIR WELLSLAGER: Anything else?					
17	Meeting adjourned.					
18	(Whereupon, the above-entitled					
19	matter was adjourned at 4:21 p.m.)					
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21						
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CERTIFICATE

This is to certify that the foregoing transcript

In the matter of: Hydrographic Services Review Panel

Before: NOAA

Date: 05-24-12

Place: Anchorage, AK

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

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