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1	MEETING OF THE
	NOAA HYDROGRAPHIC SERVICES REVIEW PANEL
2	
	Wednesday, March 21, 2007
3	ORIGINAL
	J.W. Marriott Hotel
4	Salon 2
	1331 Pennsylvania Avenue, N.W.
5	Washington, D.C. 20004
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7	
	PANEL MEMBERS:
8	
	J. Scott Rainey, Chair, Consultant
9	Tom Skinner, Vice Chair
	Durant & Anastas Environmental Strategies, Inc.
10	Jonathan Dasler, David Evans and Associates, Inc.
	Elaine Dickinson, Boat Owners Association of
11	the U.S. (BoatU.S.)
10	William Gray, Gray Maritime Company, Maritime
12	Advisor to INTERTANKO
10	Richard W. Harkins, Consultant
13	Captain Sherri Hickman, Houston Pilots
11	Association
14	Dr. Lewis Lapine, South Carolina Geodetic Survey
15	Admiral Richard Larrabee, The Port Authority of New York and New Jersey
10	Adam McBride, Lake Charles and Terminal District
16	Captain Andrew McGovern, Sandy Hook Pilots
10	Association
17	Captain Minas Myrtidis, Norwegian Cruise Line
	John Oswald, John Oswald and Associations, LLC
18	Admiral Richard West, Consortium for
	Oceanographic Research and Education
19	Larry Whiting, TerraSond Ltd.
20	
21	Reported by: Richard D. Baker, Jr.

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1	PROCEEDINGS
2	CAPT. BARNUM: Thank you, and welcome to
3	the Hydrographic Services Review Panel meeting.
4	It's a Federal Advisory Committee to advise the
5	administration on hydrographic services. Before I
6	turn it over to the chair, Scott Rainey, I would
7	like to point out in the case of an emergency, a
8	fire, that there are two exits located at the far
9	end of this room that lead into the kitchen, about
10	15 feet there's another exit that leads to the
11	street. There are some restrooms back out of this
12	door behind the elevators. And I would like to ask
13	for the public, there's a sign-in sheet on the
14	table back here, to please sign in. Thank you.
15	Scott.
16	CHAIRMAN RAINEY: Thanks, Steve. Good
17	morning, welcome to Washington, D.C. It's my
18	privilege to introduce Brigadier General Jack
19	Kelly, U.S. Air Force retired. General Kelly
20	serves as the Deputy Undersecretary for Oceans and
21	Atmosphere, National Oceanic and Atmospheric

1	Administration. He's responsible for the
2	day-to-day management of NOAA's domestic and
3	international operations. In addition, General
4	Kelly is the United States principal representative
5	with the World Meteorology Organization and is
6	responsible for U.S. interactions with the WMO.
7	General Kelly has 39 years of experience
8	in all facets of the weather field, including 21
9	years at the senior executive level in both
10	government and private industry. He has broad
11	experience in leading science-based service
12	organizations, introducing change, and using and
13	implementing technology and science.
14	General Kelly served as senior advisor
15	on weather services for the Department of Commerce
16	and conducted a bottom-up review of the NOAA
17	Weather Service operation, plus NOAA and NWS
18	management, planning and budget policies and
19	processes. He was NOAA's assistant administrator
20	for the Weather Service from 1998 to January 2004.
21	General Kelly retired from the Air Force

1	5 in 1994 after a distinguished 31 years of service.
2	His duties covered the entire spectrum of the
3	weather field from operational forecaster to chief
4	scientist to staff officer. He retired as the
5	director of Weather Headquarters, U.S. Air Force.
6	With that, I would like to introduce
7	General Kelly.
8	GENERAL KELLY: Thanks, Scott. The
9	first thing I suggest is you all start a pool as to
10	at what point in the next two days Steve loses his
11	voice. He's got a cold and so you'll watch it
12	degrade over time.
13	But thank you, Scott, for those words.
14	A couple of things you should draw from those.
15	Number one, I'm a meteorologist, not a
16	hydrographer, and number two, I'm getting mighty
17	long in tooth in terms of age, but it is my
18	pleasure to welcome you. I have a difficult task.
19	My boss is coming at noontime and you want to hear
20	my boss, I don't want to steal any of his thunder
21	so I'll keep my remarks very, very brief. It's a

1 great time to be in Washington, today is the first 2 day of spring. The temperature may not seem that 3 way, but tomorrow is supposed to be much nicer, so 4 hopefully we can get done early and enjoy some of 5 the warm weather in Washington.

Today is a special day for NOAA, it's 6 7 NOAA day on the hill, and so we have a number of the NOAA organizational entities which have booths 8 and information kiosks up on the hill and hopefully 9 that will attract the staff and some of our elected 10 11 representatives to learning a bit more about NOAA. And while it's a special day for NOAA, it's a 12 13 special year for NOAA and it has a special tie to the purpose for this panel, that is it's our 200th 14 anniversary where we trace our lineage to a survey 15 16 of the coast started by Thomas Jefferson, and I know the admiral will talk a bit more about the 17 18 various activities that are going on this year 19 relative to the 200th anniversary.

20 Committees, boards like this are in fact 21 important to NOAA. Sometimes the staff may not

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1	7 actually get to believe that, but they in fact are
2	because what they do is they bring together a
3	diverse set of experts, objective experts in a
4	given area who devote some time and intellectual
5	capital to look at some issues that are impacting
6	NOAA in the nation and provide us advice. We take
7	the advice seriously. We may not always accept the
8	advice, but if we don't accept the advice we owe it
9	to you to explain to you why we didn't accept the
10	advice. So the recommendations that you make later
11	today will in fact be considered, debated,
12	discussed, and frankly sometimes argued within
13	NOAA, but we will look at the results of your work
14	and we'll get back and explain to you what we did.
15	So we do appreciate what you do. You make us
16	better and by making us better you help make the
17	nation better.
18	You have a busy schedule. I'm hoping
19	there will be time for you to discuss. In my
20	experience having sat on these boards, what the
21	organizers do is fill up the agenda with briefings

	8
1	so you won't actually have any time to talk among
2	yourselves, and I will help move along the free
3	time to discuss by closing my remarks and saying
4	the next two briefings are particularly
5	interesting. I've heard John, he tells me that
6	he's updated just a bit. We brought it into the
7	NOAA senior leadership board, NOAA executive
8	council, to get them thinking about the way the
9	marine transportation system is likely to evolve in
10	the future and what some of the pressures and
11	challenges are on it to help think about what we
12	might do as we start putting together our
13	end-of-year budgets. So it is an interesting talk.
14	And then you'll hear talk about the economic
15	utility and importance of what we do.
16	So with that I'll turn it back to Scott.
17	Last point, be gentle with Lautenbacher when he
18	comes. You'll get him right after two hours of
19	testifying before the House Appropriations
20	Subcommittee on NOAA and just before two hours of
21	testifying in session tomorrow with the Health

	0
1	9 Science Committee, where he will get to talk about
2	such noncontroversial items as climate change and
3	climate sensors on satellites. On top of that,
4	he's got a cold, so my plea to you would be treat
5	him with a little bit of care because he's going to
6	be, A, tired, and B, not in the greatest of health.
7	Back to you, Scott.
8	CHAIRMAN RAINEY: Okay. Thank you,
9	General, very much.
10	Well, as the general said, the next
11	speaker I'm very pleased to announce, and am glad
12	he could join us today, Mr. John Vickerman. John
13	is a founding principal of TranSystems Corporation,
14	a transportation consulting firm specializing in
15	the planning and design of port, intermodal and
16	freight logistics facilities. TranSystems'
17	maritime and intermodal practice has become
18	internationally known to providing innovative
19	solutions to the many operational, planning and
20	design issues confronting the marine and intermodal
21	transportation industry. Much of John's work

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1	focuses on assisting ports and shipping companies
2	to recognize and prepare for future market and
3	technological changes. As a specialist in
4	intermodal and maritime terminal design, John has
5	led TranSystems' work on major port projects
6	throughout the United States and the world for more
7	than 26 years. Sixty-five of the 90 U.S.
8	deep-water general cargo ports have benefited from
9	TranSystems' strategic master planning. His
10	international work includes work for the Ports of
11	Rotterdam and Hong Kong, the intermodal freight
12	analysis for Eurotunnel, the channel between
13	England and France.
14	John is a both a licensed civil engineer
15	and registered architect in 22 states and holds a
16	master's degree in structural engineering from the
17	University of California Berkeley. John, thank you
18	very much for joining us.
19	MR. VICKERMAN: Good morning. It's a
20	pleasure for me to be here. Can you all hear me
21	adequately? Great. My task this morning is to

- 1	11
1	give you a briefing on the future trends and
2	challenges for the MTS. For the last couple of
3	months, I'll give you a side notice as I begin, the
4	last couple months we've been working on the due
5	diligence acquisition of a German bank to the
6	largest terminal operator in New York. That's why
7	Admiral Larrabee is not with us today. It was
8	announced yesterday by Brian Marr that the Germans
9	have purchased Marr Terminals, including their
10	assets in Prince Rupert. Over the last couple of
11	years we've had the Australian banks purchase HAL
12	Terminal up in Canada, Ontario Teachers purchased
13	assets, we've had the largest pension fund in the
14	United States, CaliPers, California Personnel
15	Pension Fund, purchased Center Point, an operating
16	company, and tell them that they will develop ports
17	and logistics facilities. So finally after years
18	and years of freight doesn't vote, a lot of people
19	are beginning to pay attention to the real value of
20	the MTS. And if you haven't heard it, the latest
21	acquisition is by the Germans of our largest

1 operator in New York.

Today I'm going to go through these
topics with you. We're going to talk about the
external industry pressures, we're going to see
where the cargo demands and trends are occurring
worldwide, we're going to try to relate them to
North America. I want to talk particularly about
the Asian import challenge. I call it a tsunami.
It's at our feet. A lot of people don't recognize
the dynamic of that trade. We'll talk a little bit
about that.
We're then going to talk about our own
North American forecast volumes from the global
trade. We're going to use the best data in the
world to project some of those forecasts. Then
we're going to look at our capacity, we're going to
look a little bit about productivity. Still the
best North American terminal compared to the best
international terminal fails by a factor of more
than four to one. We'll talk about why is that,
what's going on and why?

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	. 13
1	Then we're going to talk about vessel
2	trends. I'm going to show you a picture of a
3	vessel that is about six weeks old right now and it
4	will amaze you in that process. Finally we're
5	going to talk about some environmental concerns and
6	vessel emissions. We have the president of the
7	Port Commission in Los Angeles indicating that we
8	are killing 3,000 people a year. That's quite
9	something for a president of a port commission to
10	admit. We'll talk about why and what those impacts
11	are related to the MTS.
12	So let's go through the external
13	industry pressures. Here I'm going to take a
14	global view and we're going to delve into that, I'm
15	an architect and an engineer. This is a hurricane
16	that a vessel is headed towards. I use it as a
17	backdrop to really ask the question are we going in
18	the right direction. Should we maybe we should
19	divert our course here before we continue in that
20	process. Clearly North American ports and North
21	American gateways to trade have huge challenges in

1	14 front of them, cargo demands, capacity issues.
2	We've got the ever we have declining
3	productivity in some sectors of our MTS, and
4	environmental concerns, and all of these are pretty
5	daunting challenges. Are we headed in the right
6	direction, do we need to change course? It is my
7	hope in this presentation to point out some of
8	those key milestones that might be important for us
9	to achieve.
10	As an architect and an engineer I'm
11	tasked with designing facilities that have the
12	durability of 40 or 50 years. If I go back to
13	1950, I'm an architect in 1950 and I'm designing
14	Adam McBride's new port facility in 1950 and I use
15	this technology as my future projection, then by
16	the time 50 years rolls around the technology has
17	changed dramatically. So embedding flexibility
18	into our planning to respond to future change is
19	paramount. Now I'm an architect in the year 2007
20	and I'm tasked again by coming back 50 years later
21	and he says do me another port. If I use this

	15
1	15 technology to go the 40 or 50 years out, have I
2	done the right thing? Should I be doing something
3	else? Now, I'm a retired navy captain. I don't
4	know what that is. This is a graphic of a new fast
5	frigate. I don't know, is that an airplane? It
6	doesn't really matter what it is, but what we do
7	know, what we know today will surely, surely be
8	different tomorrow. And the way we accept and the
9	philosophy of how we embrace change, technological
10	change, operating change, has and will create the
11	future for us. So our ability to deal with and
12	incorporate dramatic change is part of our
13	strength.
14	Today a marine terminal only exists if
15	it can reduce through-put costs. If it can
16	accelerate the in-transit philosophy of the product
17	that it is moving and it has to do it securely and
18	it must be a steward of the environment. Clearly
19	Adam McBride doesn't say to Lake Charles come to
20	Lake Charles, we're slower, we're more costly, our
21	service ain't so good. He doesn't use ain't, but

1 that's not the way it is. Adding value, reducing 2 cost, increasing transit, speed is what it's all 3 about.

I will talk today about the entire 4 marine industry globally. It can be divided into 5 6 two major areas; general cargo, which has three 7 components, break-bulk, neo-bulk and container, and I've tried to give you some examples of the kinds 8 9 of freight for each of those; and also bulk cargo, 10 which is both liquid and dry. Some of these are privatized, some are public. A lot of what I'll 11 12 talk about today is containers. We have dramatic 13 growth in containers worldwide, we have dramatic 14 growth in the vessels that carry the containers, 15 and we'll talk about that dynamic. However, the 16 same principles we talk about with containers are 17 applicable to break-bulk or neo-bulk or any one of the other vessel modes of transport. 18

Today the objective is a worldwide objective to seamlessly move freight through the logistics chain, and a port authority is just one

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1	17 link of many, many constituents in that chain, from
2	nonvessel operating common carriers to pilots, to
3	third-party logistics providers. We call them
4	3POs, we now have 4POs. Until everybody in that
5	logistics chain derives a value, we don't have the
6	ability to change dramatically the system. So it
7	has to be and it has to embrace the holistic entire
8	logistics chain.
9	The container industry is dramatically
10	consolidated. What you see before you now in a
11	graph, the blue bar are what we call slots. A slot
12	is the capacity to move a container on a ship, so
13	it's a global position if you will for all
14	capability on all ships worldwide. You can see
15	that the slots are increasing because we're

17 focus on the yellow. The yellow is the slots 18 controlled by the top 20 carriers. And if we look 19 at that, in 1995 we're about 44 percent of all the 20 slots were controlled by the top 20 carriers. In 21 2000 59, in 2005 70 percent; more and more

increasing the number of vessels. I want you to

16

1	18 capability in fewer and fewer ends. Also shown
2	here in red is the slots controlled by four global
3	alliances. The world is so big that one carrier
4	cannot control the logistics supply chain around
5	the globe and they unite and they link together a
6	consortium and alliances. They fix rates and
7	generally practice as a consortium or an alliance
8	worldwide. In the foreground is pier 300, in the
9	horizon is pier 300 in the foreground, 400 in
10	the background in Los Angeles.
11	We have a paradox today. It is the best
12	of times, cargo volume is up. It is the worst of
13	times for resources, capability is declining. And
14	the paradox is how do we balance that increase
15	demand against our organic resources?
16	This is opening day, pier 300, Port of
17	Los Angeles. Oops. Lots of volume. At the
18	current growth levels today by the year 2020 North
19	American ports will be, guaranteed, severely
20	congested. You can bet on it. And we can no
21	longer use congestion as an excuse. When the

19 1 system is congested we cannot tolerate that issue. 2 If we don't act in a holistic systemic approach, we 3 will embrace what this future tells us as unabashed gridlock in many of our key gateways. 4 5 Several years ago there was a survey at 6 the top 1,000 blue chip shippers. A shipper, 7 sometimes called a beneficial cargo owner, are the 8 people who own the freight in the container that's on the ship. And they were surveyed, the top 9 10 1,000. By the way, the top 1,000 are those who spend more than one billion US every year on 11 12 transport services. And they were asked what is 13 the most important criteria that you the beneficial 14 cargo owner has in moving your freight, and their 15 first criteria is, by 43 percent, reliable, 16 dependable service, repeatable, on time every time 17 all the time. Don't give me anything that cannot be repeated and I can't rely on. Number one 18 19 criteria. 20 Second criteria is freight rate. Now, 21 when I deal with the shippers they always want the

20
rates down. But we'll give them the benefit of the
doubt, so between these two factors, plus the third
most frequently referenced issue is transit speed,
those three factors rule in terms of selection of
carrier, logistics, distribution, supply chain
management decisions, and quite frankly, a big
marine carrier like NYK, 400 vessels, 600 vessels
worldwide, really when they come to a port they
don't really care about that, just get my asset in
and out of that port and deliver the product by
this criteria.
This is the one I like, though. The
logistics truth. The customer wants more and is
always, always, always willing to pay less for it.
Do you disagree? My wife does not disagree. And I
don't disagree. When I go to shop at Wal-Mart
here's what I'd like you to do, when you shop at
Wal-Mart or wherever you shop and you come up to
the cash register at the end of the transaction and
you put it down and start paying for it, ask the
lady behind the cash register where did this come

	21
1	from, how did it get here, what port did it come
2	through, what trucker brought it to me. What are
3	you talking about? It's the perception of quality,
4	the availability of product and price and
5	availability. I used to get mad at my daughter
6	when we would send her down to the grocery store
7	for milk and she couldn't find the right 1 percent
8	colored milk top or whatever and she would come
9	home and say I can't get it, it's frustrating. And
10	she's completely divorced the cow from the
11	logistics chain. For her it's the supermarket.
12	It's not there and the supermarket's at fault or
13	somebody's at fault because I don't get the right
14	milk. So the consumer is in fact the one who
15	drives most of the product worldwide.
16	This chart shows you how important the
17	marine transport element is, but it is also
18	building on that since about, oh, 1983, a key
19	element, not the majority, but a key element is
20	starting to move by rail. What we call intermodal
21	in the system, going from one mode of transport,

	22
1	vessel, to another mode of transport, rail. And
2	another thing to realize is back in 1968 it took us
3	about 60 days to get from Hong Kong to New York.
4	Today that's dropped 43 days, for about a 72
5	percent decline in transit time. Pretty amazing.
6	Do we use all the capability of the
7	modes? We talk about the intermodal system and yet
8	we don't have a system. What we have is an
9	amalgamation, an assembly, an aggregation of public
10	and private interest who do not fully collaborate.
11	The 3PO does not talk to the ports. The truckers
12	do not fully talk to the railroads. It is not a
13	collaborative partnership. Is there benefits by
14	cutting across those stovepipes of mobile
15	resistance or systemic value in the whole chain?
16	And I would propose to you that there is and that
17	the MTS in many, many instances is the glue, the
18	resource between those mobile stovepipes.
19	Another systemic issue is security, and
20	I'm going to talk a little bit about that. I was
21	just yesterday in Fort Lauderdale talking to the

	23
1	Maritime Security Council. We're going to talk
2	about some of my pet peeves in security. This is
3	the Port of Miami, known before 9-11 for its drug
4	interdiction capability, and you'd think of all the
5	ports that one would know best about how to deal
6	with security. Yet their budget has been impacted
7	by more than a 600 percent increase since 9-11, a
8	huge impact.
9	This is an exercise, a tabletop exercise
10	done by Booz Allen Hamilton that has the following
11	scenario: On day one the Port of Los Angeles and
12	Savannah are shut down for a, not a false positive,
13	a confirmed positive nuclear dirty threat. We
14	cannot find it. Customs closes all ports, Customs
15	and Border Patrol day four. We can't find it, we
16	reopen the ports on day 12 and day 20 a railcar
17	explodes with the threat, and the ups and downs of
18	the issue are not what I'm getting at. What I
19	really want to get at is the loss was \$50 billion.
20	The amount of time to clear the vessels from the
21	MTS was 60 days. The elasticity in the supply

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1 chain globally has declined over decades and is now
2 averaging somewhere between seven and ten days of
3 total elastic capability. 60 days is unheard of,
4 60 days threatens the viability of individual
5 private sector players in that supply chain. It is
6 a huge effect.

7 Our ability to use and understand what's 8 in a container is important. The typical -- sorry, 9 we'll go back. The typical mechanism is going 10 through a radiological portal monitor, an RPM, past 11 an OCR reader or radio frequency tag identifier, 12 and then through a VACIS, which is really an X-ray 13 issue. We have radiological portal monitors. Our 14 first generation are plastic scintillators. A 15 radiological portal monitor is just a detection 16 device that passively looks at and triggers alerts 17 to radiation detection. Our first generation I 18 refer to as kitty litter detectors. Kitty litter 19 or Mexican tile, creates a false positive 20 immediately. You could have a barrel of kitty 21 litter and inside it a pretty ugly thing, but you

	25
1	wouldn't be able to detect using a first generation
2	RPM, you couldn't detect if that's just kitty
3	litter. So we stop it, we take the container off
4	of the issue, we deband it and it actually slows
5	down the logistics chain. Today what we need is
6	what we call spectrum graphic SPMs that detect a
7	spectrum of radiation and can tell us whether it's
8	kitty litter or Mexican tile versus something
9	really bad. Unfortunately we have a variety of
10	first generation and second generation RPMs and the
11	system isn't fully integrated.
12	You're aware of the president's
13	signature last year in October of the Security and
14	Accountability for Every Port Act. The SAFE Port
15	Act. You realize and understand that that act
16	requires the top 22 ports to be 100 percent
17	radiologically protected by the end of this year
18	and the rest by the end of 2008. It also has the
19	TWX implemented and that will occur this year. And
20	then it has something down here, the codification
21	of the automatic targeting system through the

1	26 container security initiative through C-T PAT and
2	something called Greenlane. Greenlane isn't an
3	environmental issue, it's how you can speed cargo
4	inspection by fully understanding the in-transit
5	visibility of that cargo. We have no Greenlanes
6	that exist today. The legislation permits it. We
7	don't have any of it. We'll talk a little bit
8	about that in a minute.
9	So what is our line of defense? We have
10	something called the second line of defense, I
11	think it's misnamed. We call our first line of
12	defense the ports in North America and the
13	gateways, and the second line of defense overseas.
14	I kind of see it opposite; you know, first line of

defense is -- but that doesn't matter. 16 I don't come up with these things. We have the second line 17 of defense, which is the radiologic portal monitor 18 deployment system, is managed through the National 19 Nuclear Security Administration. It has three 20 21 major programs. One is the global threat

defense is overseas and then maybe second line of

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reduction, another is this \$700 million to put in
RPMs overseas. We prebought 600 phase one
generation RPMs and we're going to deploy them
overseas. We're going do it at 50 megaports, 200
border crossings, and the real issue here is we're
spending this kind of resource but we do not link
it to the first line of defense, our organic ports
in North America. If we could share the
information across those lines of defense, it comes
down to this: Port security and port productivity
are two sides of the same coin. If we have the
information overseas and we can use it to operate
the ports better, we can be more productive. Why
don't we? Why shouldn't we? Port security is a
big deal and getting bigger.
So another I'll share with you, this is
my opinion so, another kind of ugly truth is once
we detect it and it's not a false positive, what
the heck do we do with it? Now I don't want it.
So we now have a confirmed dirty nuke and it's in a
container. Now, they don't glow like that, that

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1	would be really neat if they could. This is it,
2	I'm here. What do we do with it? Well, in Los
3	Angeles right now we drag it over two bridges, past
4	one residential community, past a power plant.
5	That doesn't make a lot of sense, does it? How do
6	we do it?
7	Well, through a grant, through TSA and
8	DHS, there's a model program underway being
9	designed by The Washington Group that looks at
10	containment of a dirty nuclear device. It's also a
11	facility that would detect chemical and biological
12	issues and containment. This gateway model will be
13	proliferated throughout all of the our gateways
14	once it is perfected in LA and Long Beach. So this
15	is the future of security coming to each of your
16	gateways, once we understand and get the first line
17	of defense communicating with the second line of
18	defense and we can somehow use that to improve our
19	productivity.
20	Okay. Enough aside on security. It's a
21	big issue today and we need to deal with it.

1	29 Let's look at the international cargo
2	demands. The World Bank after 9-11 revalidated
3	that every ten years the world output grows 10
4	trillion US dollars. Whoa. News flash, the
5	population of the world is increasing,
6	sophistication of trading partners is increasing,
7	barriers to trade are coming down. \$10 trillion
8	every ten years. If we look at container growth
9	against gross domestic product, the green line is
10	container growth, this is compound annual growth
11	rates, and the blue is GEP. You can see the
12	containers are about twice GEP and will continue to
13	be at that growth rate for a long time. So we're
14	going to have containerization out here for a long
15	long, long period of time.
16	Let's look at this. This is using the
17	latest and greatest data from global insight to
18	project conservatively the container forecast to
19	the year 2024. Today we're at about 85 million
20	containers. By the year 2024 we will be at 243
21	million. Oh, man, that is a lot. That growth is

	30
1	about 5 to 6 percent compound annually.
2	Historically it's been at 8, so the slope of that
3	line is declining but is still really horrendous.
4	Here I've taken it's hard to get this
5	data, I've combined ports. Typically the Port of
6	LA and Long Beach, which I combined here, doesn't
7	show up on the top six or seven because
8	individually they're not, but when I combined them
9	they're the third largest port complex in the
10	world. By the way, this thing, number 4, is about
11	to be number 1, and I'll tell you why in a minute.
12	Let's look today for 2004, this is a couple year
13	old data because the data is hard to come by, Hong
14	Kong at that point in time was 20 million
15	containers, they're going to 31 million. At that
16	point Hong Kong alone would be greater than the top
17	15 U.S. container ports combined. Just Hong Kong,
18	one port, bigger than top New York, New Jersey, LA,
19	Long Beach, everybody. Pretty big.
20	But this is what I'm most fearful of and
21	I think what the global industry is responding to.

1	31 This looks very complex, but bear with me for a
2	minute. This is GDP rankings using global insight
3	data across these planning horizons. The U.S.
4	according to global insight declines. No longer
5	the world economic engine. That decline is 2040.
6	Some econometric forecasters believe it's as early
7	as 2030. Now, I'll be retired by then but it
8	doesn't bode well for my grandson.
9	Let's look at who is ascending. This is
10	China. We'll talk about that in a minute. This is
11	India. And after a brief respite this is Brazil.
12	Let's look at all the rest. Japan down, Germany
13	down, UK down, France down, Italy down. What is
14	the new world econometric? It's Asia and the
15	Indian, China and the Indian subcontinent. If you
16	don't get that by now, prepare to be a, not
17	developing economy, but one that does not rule in
18	terms of global power and projection.
19	So let's talk about this Asian import
20	volume. For many years this is a graph of
21	product sourcing or outsourcing if you will to the

	32
1	globe. The focus on Asia has been with us for
2	years and years and years. This is millions of
3	TEUs, 20-foot equivalents, 20-foot boxes. So this
4	is not a new phenomenon. Asia and the Indian
5	subcontinent have been there for a long time in
6	terms of attracting sourcing and manufacturing.
7	Today in North America, China itself is 41 percent
8	of all trade, 41 percent. In the U.S. alone in the
9	last five years China represented 95 percent of all
10	growth. Here it is, last five years, China
11	accounted for 95 percent. The trade growth in the
12	U.S. is compounding at about 12 percent annually.
13	I was over in Shanghai last year, we
14	have a contract with the Chinese central government
15	to do a planning for a new port south of Shanghai,
16	and I came back disbelieving what I saw. Let me
17	share with you what I saw. This is the outline of
18	China on the U.S. map. We know that their
19	populations are different, but I want you to look
20	at those faces, and I came across or came back with
21	a fact and that fact is that the number of Chinese

	22
1	33 elementary school children, every one high school
2	and below, that number is larger than the
3	population of the United States, every man, woman
4	and child. More than 300 million. This is the
5	upward mobile society for China. This is why China
6	is driving an engine at top speed.
7	Let's look at the growth of Chinese
8	ports. Remember our growth is growing at about 6
9	to 7 percent. Here's mainland China growth, it's
10	averaging 27 percent a year. Who would like their
11	CDs to grow at 27 percent? I would, that would be
12	great. Doubling every three years, wow.
13	So how bad is this? Well, the Chinese
14	Ministry of Rail went to the second largest
15	railroad in North America, signed a five-year
16	agreement to build a new double-stacked train
17	system down the Yangtze River. The Yangtze River
18	today, 400 of the Fortune 500 manufacturers are
19	already in the Yangtze manufacturing. Well, that's
20	pretty big. The Chinese Ministry of Railroads will
21	spend 242 billion on a double-stacked train system

1 up the Yangtze. That's like spending the entire 2 SAFETEA-LU Transportation Bill on one mode, one 3 technology in one location. Do you think Matt 4 Rose, the president of BNSF, could do something 5 with \$242 billion in a trade lane? I think he 6 could.

7 So let's look at that. This is a rendering of the old Shanghai. The clouds back 8 here are the old city of Shanghai and they said 9 10 they're desperate, they've gotta build more ports. They looked 20 miles to sea and they saw some 11 12 islands and they said let's cut off the top of the 13 islands and fill in between and we'll create 54 new 14 berths, a thousand feet long each one. And then in 15 three years they built a 20-mile, 32-kilometer 16 bridge, in three years. Fully environmentally 17 documented, permitted, designed and constructed. Ι 18 walked on it. 19 They're building a new city for the new 20 port workers and they're building a new logistics

21 park. Prologis, the largest developer of logistics

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1 parks in the world, has the contract, I'm actually 2 doing some design for Prologis, and through-put of 3 that park right there is twice the through-put of 4 the total Port of New York and New Jersey just in 5 the logistics part.

What are we doing about it? On the west 6 7 coast of the United States Mexico is contemplating 8 three new corridors. This is Punta Colonet, just south of the border at San Diego. They will dredge 9 10 a new channel into the desert, create a new port, they will build a rail line across the desert to 11 12 the Yula Port Authority to avoid LA Long Beach. 13 WOW. And then if you go around the horn to the Gulf of California, from Guaymus to Tucson is 14 15 another corridor. And then you have Lalo Cardinez with the KCS Railroad going into Laredo. Now, not 16 all three of these will be developed but it's about 17 4 million TEUs, so not a whole lot of capability. 18 19 Canada, the Canadian Manufacturers and Exporters Association came to us and said we want 20 to build a new port north of Vancouver and we want 21

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1	36 it to have the same through-put as LA Long Beach,
2	and I said what? 13 million containers. And we
3	basically said, we did the marketing forecast for
4	that, we basically said no, Prince Rupert can only
5	do about two. This is the CN system by the way.
6	It goes coast to coast and since the acquisition of
7	the IC Railroad it goes down into New Orleans. And
8	they are the closest to China. The vessels coming
9	to the Panama Canal, which are limited to 5,000
10	TEUs now, will go into that system. Thus there's
11	an emerging transcontinental intermodal system by
12	CN that goes from Prince Rupert in the north by
13	the way, the announcement yesterday with Marr also
14	included the acquisition of Prince Rupert because
15	Marr was the operator of Prince Rupert by the
16	Germans.
17	We're doing a terminal I'll go back.
18	Up here just north of Halifax we're doing a new
19	intermodal terminal.
20	So if I look at this whole system
21	typically from the centroid of manufacturing, the

	37
1	Japans and the Koreas, typically when it crossed
2	the Pacific, since the standards have deregulated,
3	the shippers went to the largest urban production
4	zone in North America; New York-New Jersey. News
5	flash, New York-New Jersey is not going to Halifax.
6	New York-New Jersey is not moving to Baltimore.
7	The mandate is get the stuff to the consumption
8	zone as quickly and as cheaply as you can. The
9	second consumption zone is LA Long Beach; we're a
10	bipolar. So as the centroid manufacturing moved to
11	Asia, Singapore, Hong Kong, a couple years ago a
12	shipping line said I coulda had a V8, I'll go
13	backwards. And it went backwards to the Suez,
14	through the Suez, through the Red Sea, past the
15	Straits of Gibraltar and on sprint service got to
16	New York a day faster. And today the backwards
17	flow through the Suez is greater in containers than
18	it has ever been in the history of the Suez Canal.
19	Although small, if we can't accommodate the Asian
20	import volume here, it will flow backwards, because
21	we're not going to stop consuming. Or maybe we

1 are. Maybe two years, a year from now all of you
2 will stop buying and start saving. I don't think
3 so.

4 This not how to run a port. But can we 5 handle these volumes in North America? Well, the 6 forecasted volumes for North America and 7 particularly for U.S. range from 6 to 7 percent 8 compound annually. If I freeze the market share we've got to grow three times. How many in this 9 10 room believe we'll have three times the number of 11 ports by the year 2020? I would love it. How 12 about two times? How about no times? The California Coastal Commission has said thou shalt 13 14 not. Here's the latest and greatest from the 15 Secretary of Transportation. The yellow bar is the forecasted demand for containers, this is LA Long 16 17 Beach, in 2020, and the blue is 2004 through-put. 18 Everybody believes that there is a ceiling that 19 we're going to bump up against. And this is the 20 top ten ports. That differential has to be 21 accepted by all of these other ports if we assume

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1 that our consumption continues. We have a problem.
2 It's a tsunami. It is facing LA Long Beach right
3 now.

4 Capacity. Two years ago we did a study 5 for the U.S. Chamber of Commerce to look at the top 6 75 ports and basically said that, the black is the 7 overcapacity, and it basically said we're in 8 trouble by 2010. This is 2007, right? Boy, 2010 9 by my watch, my watch goes in years, is pretty 10 close.

Another graph just to show you, this is from Drewry Consultants, the red is the demand for North America marine terminal capacity, the blue is the supply, and once we get to about 75 percent or above we are in trouble. We need to do planning for new capabilities now, and as this graph shows us, by 2011 we're busted.

LA Long Beach alone is growing to 35 million containers in 2020, 45 million containers in 2030. This capacity versus demand is a public and private issue. If we don't get it right it's

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1 going to affect our economics, our environment, and 2 our quality of life.

3 I've already told you that the best terminal in North America compared to the best 4 5 terminal globally fails by a factor of more than 6 four to one. Let me give you a little exercise. 7 In 1999, this is a productivity graph by containers 8 per acre per year, and as you can see, the U.S. 9 average is about 3,000 in '99, on the West Coast 10 because we have intermodal, but what do you think European ports were, better than we were in '99? 11 12 Yeah, a little bit, pretty good. What do you think 13 the Asian ports were in '99? Better? Yeah. 14 Pretty good. Well, realizing that, clearly in five 15 years we will make dramatic changes to improve our system, is that true? Huh-uh. Let's look at what 16 happens. Hey, pretty good, U.S., we're up. You 17 18 think Europe is up? Yeah, pretty good. Where's 19 Asia? Holy schmoly, this in green is the productivity and compound annual growth rate. 20 We 21 ain't doing a good job.

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1	41 Vessel trends. This is Malcolm McLean.
2	50 years ago he sold his trucking company for 42
3	million. Malcolm is the father of containerization
4	and we miss him dearly. His ideal X was about 1700
5	20-foot equivalent units and up until a couple of
6	months ago this was the biggest vessel afloat, 8600
7	20-foot equivalent units. Panmax, maximum in the
8	Panama Canal. Let's see if we have any changes.
9	By the way, the current Panama Canal, the maximum
10	we can get through is about 5,000. This is a
11	picture of a 4,000 TEU. We now hang the containers
12	over the gunnels to try to get more stuff through
13	but we can only get about 5,000. They just passed
14	a referendum to improve in both Balboa and
15	Cristobal a new third lock. In 2015 when the lock
16	is finished this capacity of 5,000 goes up to
17	10,500.
18	These vessels are really big vessels.
19	They're really long, these vessels are really wide.
20	A famous naval architect by the name of Archimedes
21	said that the draft of a container ship is not

	42
1	proportional to the TEU capacity, it is
2	proportional to the amount of displaced water
3	volume. Thus I could take this vessel, melt it
4	down over 20 acres and have a draft of a half
5	meter. Pretty good, Archimedes; the wider we get,
6	the longer we get, the less pressure on draft.
7	Don't go through all the numbers, but I want to
8	show you that for vessels over 7,000 the current
9	vessel fleet is about 2.3 million slots, on order
10	is 2.3. A doubling of the global fleet. Last year
11	Zim and Costal ordered four, each of them, four
12	10,000-TEU vessels. How is that? Even in 2015 the
13	maximum through the Panama is 10,000. They're
14	ordering them today? What's going on here?
15	They're really big. I won't go into specifics.
16	This is the thing that bothered me most. This is a
17	picture about six months old. This is the largest
18	vessel in the MAERSK fleet called the Sovereign
19	class at 6800 TEU. Out of the Odense Shipyard four
20	months ago came the EMMA. Holy schmoly. This is
21	the EMMA, she's really big. This is the EMMA a

	43
1	month ago. Serviced by ten cranes. Maximum that
2	we have in the U.S. is five against the ship.
3	Whoa. This is the EMMA. There are four of them
4	now. This is the EMMA. Focus if you will right
5	back here at the stern. She is really, really big.
6	We now have hatchless ships. We now
7	have proposals for external propulsion electric
8	drive that take the power train out of the ship and
9	put more containers in. They're really, really
10	big. 15,000-TEU ship, plan view. This is the
11	Panama Canal dimensions. This ship is really
12	difficult to get through the Panama Canal. 13
13	across the Panama Canal, this is 28 wide. How do
14	you unload her? Is there a bigger ship out there?
15	The Germans have one. So really what we have today
16	is really big mother ships coming to a logistics
17	hub and moving in a new frontier to a transshipment
18	site that's governed by what which call Short Sea.
19	Short Sea can take freight off of our
20	congested roads but it has to be linked to economic
21	viability through the mother ship deployment.

1 Emerging container on barge, emerging 2 high speed low weight custom vehicles that are 3 already prestacked with double-stacked trailers. I'm a little over time here but I want 4 5 to end with environmental issues and they're pretty important. This is the global trend of energy use. 6 7 I sound like the former vice president, don't I? 8 Forgive me here. This is the energy use and you can see the green is water, the blue is truck, I 9 don't know why they use those colors, but you can 10 see it's increasing. Complicated graphs, but I 11 12 want to point out NOx and PM10 are particulate matter, which are emissions from diesel, are 13 unregulated for our vessels but are regulated on 14 15 land. If we continue the decline of diesel 16 emissions by regulation it looks like this. If we do not regulate it, those emissions actually 17 incline. How bad is it? This is NOx emissions in 18 19 tons per day. This is the Port of LA. This is a 20 half million cars. Lots of tons out there. This is PM10 particulate matter. This is the Port of 21

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1 LA. This is a half million cars. The progress has 2 stalled on diesel emissions. We are in fact, 3 according to some to the leaders out in the port 4 industry in southern California, we are killing 5 people.

6 The group opposing that calls this the 7 diesel PM death zone and it is right there. There is the cancer risk per million. Environmental 8 9 constraints are growing. This is the typical I-710. They want to double-deck this into downtown 10 This is coming from the ports. The LA Long 11 LA. Beach have had 40 major projects held up for 12 several years. Each port has their own technical 13 14 expert group. I'm on the Long Beach side and they're redoing the environmental documentation. 15 16 We have ways of improving by using 17 natural gas, trucks. The cost is absolutely horrendous. Ports and intermodal linkages must 18 change the cost of value relationship. They have 19 to be value added multipliers. Force projection 20 capability platforms as the military would say. In 21

1	46 order to do that, successful ports must invest in a
2	leverage technology. They have to improve
3	productivity and they must do it securely and as
4	environmental stewards. Thank you very much.
5	Couple of questions? We have a little
6	bit of time. I know I'm beyond, Steve, from what
7	you wanted, but
8	CHAIRMAN RAINEY: Are there a couple
9	questions? Anyone of the panel?
10	MR. DUNNIGAN: Thanks, John.
11	Interesting as always and I appreciate the changes
12	you've made since the last time we saw this and
13	really updating it.
14	A couple of things. You talked about
15	environmental costs. The environmental costs in
16	Asia are enormous. I don't feel like I can go
17	there unless I bring my own oxygen, Beijing,
18	Shanghai, wherever you want to talk about. How are
19	they going to be able to continue this kind of
20	growth in light of that cost? And my second
21	question would be, you know, as Americans we're

	47
1	pretty self-centered sometimes, we figure well,
2	we're the money and all the trade's gotta come to
3	us. And as I begin to learn a little more about
4	Asia, it's looking more and more like that's the
5	consumer society in the future and the trade isn't
6	going to have to come to us. In fact we're going
7	have to fight I think 50 years out for the exports
8	that we want to come to our country. The economic
9	engines in Asia are just unbelievable. So is that
10	likely?
11	MR. VICKERMAN: I would tend to concur
12	with both your observations, having worked over
13	there.
14	MR. DUNNIGAN: I don't know how you got
15	those pictures of clean air in China. I never saw
16	it when I was there.
17	MR. VICKERMAN: Right now within two
18	hours of Shanghai there is 100 container berths
19	being built in three ports. Within five or ten
20	years we're going have 100 new ports, terminals,
21	berths in and around Shanghai. And the biggest

	48
1	project we've ever done is seven berths at LA for
2	MAERSK. And in that the regulation on
3	environmental, although there is some, I have to
4	agree with you that there's some, there is less
5	constraints on it. There's a growing concern for
6	it. But right now that population that I showed
7	you, the elementary school children, the value is
8	in the economic engine for that. I believe China
9	will eventually wake up and believe that they have
10	to be more proactive environmentally. But as far
11	as I can see right now, their interests lie in the
12	economics of their society. So I believe that
13	there will eventually be better controls
14	environmentally over there, but for now I think the
15	emphasis is on economics. What was the second
16	question you had? Sorry.
17	MR. DUNNIGAN: I think we make a mistake
18	in assuming we're going to be the consumer center
19	for the world.
20	MR. VICKERMAN: Yes. I tried to show
21	you with the GDP that that declined. I really

	49
1	believe somewhere around 2030 to 2040 we will no
2	longer be the economic engine of the world and it
3	will be tougher for us to get the product.
4	However, consumption is everything. So right now
5	we are the consuming, mega consumers of the globe
6	and that will continue. I guess my argument would
7	be while we still have clout shouldn't we be doing
8	the right thing for the whole system? I think we
9	should, because in 20 years, which isn't so far
10	out, we're going to have real problems and the cost
11	of our goods to us are going to decline
12	dramatically and we won't have the full influence.
13	Clearly being number two or three or four if we
14	decline to that is not so bad, but we won't have
15	that real dominance and there will be other things
16	in the logistics chain done to us. I believe we
17	need to start valuing what we have.
18	I told you when I started this
19	conversation about all the foreign investors, the
20	announcement yesterday that the biggest terminal
21	operator in New York was bought by the Germans

through their U.S. subsidiary. I think we need to
wake up and understand how valuable the MTS is,
what a resource it is, plan for the future. We're
so stochastic that we never really give very much
value to the system view and a plan and I think we
ought to do more.
RADM WEST: John, great presentation.

8 Quick question, who has the authority, the hammer, 9 to set emission standards for shipping, IMO?

10 MR. VICKERMAN: Who has the authority? 11 The IMO is the International Maritime Organization, 12 clearly. Do they really have the hammer to change 13 some things? Maybe. The International Standards 14 Organization is another who has capability to do 15 that, such as radio frequency compliance and the 16 like. Do they have a hammer? Not necessarily. 17 Are they the organization to start that process in, 18 yes.

19RADM WEST: My concern is we can say20that you can't come to our ports unless you meet21certain criteria, carbon emissions and sound

1 induced to the hull and all that stuff, but we 2 don't have that hammer because we need them to come 3 in. There's no way you're going to be able to 4 force them to do it. I'm just curious how we're 5 going to control that.

6 MR. VICKERMAN: I agree with you, we 7 don't have any control over it. I guess my 8 argument is that we're not fully engaged overseas. 9 Not we have to kowtow to anybody, but are we 10 participatory globally, are we really there 11 talking? We tend to be isolated. We tend to we're 12 the biggest power around and we'll be that way 13 forever. No way. We need to be more engaged, we 14 need to be more proactive. If we're not at the 15 table making those kind of decisions about ballast 16 water, about frequency identification standards, 17 about container sizes -- they want to do a 57-foot 18 European pallet module container. The biggest 19 container we have right now is 53 that goes domestically, it can't be put on a ship, and they 20 21 want to do a 57. Our maximum design length for

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1 trucks in the U.S. by state standards is 60 feet.
2 That only leaves three feet for the engine. That's
3 not very good.

4 We need to participate. If we don't participate we're not going to further our own 5 endeavor. We don't have to kowtow to anybody, we 6 7 just need to be part of the process and recognize that everything you wear, eat, consume, drive, is 8 9 sourced overseas, a lot of it. And we're dependent on that. A famous lady once said it takes a 10 village. In that regard, I think she's right. 11 We are globally sourced, we need to be globally 12 responsive. 13 14 I thank you for your time and attention, it's my pleasure this morning. 15 16 CHAIRMAN RAINEY: We have a small token of our appreciation for you coming and speaking and 17 18 addressing the group today. 19 MR. VICKERMAN: Thank you very much. 20 CHAIRMAN RAINEY: Thank you. 21 Barbara, I appreciate MR. VICKERMAN:

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1	53 all your help, you were great, thank you.
2	CHAIRMAN RAINEY: I'll use this
3	microphone here and introduce our next speaker. We
4	asked John to come to give us an overview of all
5	the challenges and trends facing the transportation
6	system and it was an excellent presentation and
7	there are some daunting challenges and food for
8	thought. Our next speaker, Dr. Hauke Kite-Powell,
9	is going to address some of the economic and social
10	benefits that the hydrographic services bring to
11	bear on this, on these challenges. John's earlier
12	slides talked about the efficiency, the safety and
13	the environmental friendly need for reliable
14	transportation services and this next presentation
15	will go into some of those benefits that NOAA
16	brings to the table in our approach to these
17	challenges.
18	Dr. Kite-Powell is a research specialist
19	at the Marine Policy Center of the Woods Hole
20	Oceanographic Institution and a lecturer in the
21	Ocean Engineering/Ocean Systems Management Program

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1	54 in the mechanical engineering department of the
2	Massachusetts Institute of Technology. He holds
3	degrees in naval architecture, technology and
4	policy, and ocean systems management from MIT.
5	Dr. Kite-Powell's research focuses on
6	public and private sector management issues for
7	marine resources and the economic activities that
8	depend on them.
9	He has done many research projects and I
10	just list a few: Cost and benefits from improved
11	ocean observing activities, economics of nautical
12	charting, economics and development of the
13	liquified natural gas shipping market and many
14	others. With that Dr. Kite-Powell.
15	DR. KITE-POWELL: Thank you for that
16	introduction and for the opportunity to speak here
17	briefly today. Can you hear me okay? This way?
18	Good. I'll try to go through this quickly and
19	leave time for questions and discussions
20	afterwards.
21	What I'd like to do is bring the focus

1	55 from the very good presentation we just had on the
2	big picture, the global changes in the maritime
3	transportation business and the things that drive
4	those changes, down to the U.S. maritime
5	transportation system very specifically and within
6	that the contribution that NOAA's navigation
7	services or hydrographic services make to that
8	system. And within that topic I want to focus on
9	three things. One is the problems that come up
10	when you try to measure value of a contribution
11	like this. There are many different ways to
12	quantify the economic significance of something and
13	you have to be careful about how you do that so
14	that you don't misinterpret the results that you
15	get. The second thing I want to touch on is the
16	way economists think of the value of a product like
17	this where that product is information. And
18	there's a special way, a particular way to think
19	about the value of information. And then finally I
20	want to actually show you some numbers that put
21	into context the economic significance of these

1 particular services within the MTS.

2	So to start with I want to emphasize the
3	point that the services that NOAA provides for
4	navigation and through hydrography are really
5	information that supports decisions, operational
6	decisions and planning decisions by people who use
7	the national waterways. And that includes not just
8	the maritime industry, although that's very much
9	the focus of the discussions here today, but also
10	other users, including recreation, marine resource
11	management broadly, weather forecasting and others.
12	You'll see many numbers put on the
12 13	You'll see many numbers put on the economic significance of the maritime
13	economic significance of the maritime
13 14	economic significance of the maritime transportation system for the United States, and
13 14 15	economic significance of the maritime transportation system for the United States, and they're all right and they're all different and the
13 14 15 16	economic significance of the maritime transportation system for the United States, and they're all right and they're all different and the difference arises from what's being measured. In
13 14 15 16 17	economic significance of the maritime transportation system for the United States, and they're all right and they're all different and the difference arises from what's being measured. In fact, one way to measure it is the value of the
13 14 15 16 17 18	economic significance of the maritime transportation system for the United States, and they're all right and they're all different and the difference arises from what's being measured. In fact, one way to measure it is the value of the cargo that the system moves each year. And if you

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1 place in and out of the United States.

2 You can also measure the gross output or 3 sales of the waterborne cargo industry in the United States, and if you do that you get a number 4 5 that's on the order of \$35 billion, or you can 6 measure the value added by this business, the 7 contribution that it makes in the national system 8 of accounts that measure gross domestic product. And if you do that, if you look that up you get a 9 10 number on the order of \$10 billion. These are all accurate reflections of value generated and the 11 12 question is what question are you trying to answer, 13 and that determines which of these numbers you 14 should be looking at.

From an economist's point of view the 15 best measure of value generated by an activity or 16 17 product or service is value added, is the contribution to overall economic welfare, and one 18 19 of the best measures of that is GEP. So my inclination is to look at that kind of number. Ι 20 know it's not the biggest of the numbers but it's 21

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1	the most meaningful in many ways. And I'll come
2	back to this distinction again in a little bit.
3	So within that marine transportation
4	system, NOAA's hydrographic and navigational
5	services generate value by providing information
6	about the environment in which the ships operate,
7	and that information takes a variety of forms. Two
8	that I'm going to talk about here today are
9	information about the topography, of the
10	hydrography of the sea floor that comes through
11	chart data, and the more dynamic information about
12	water levels and currents that overlay this. There
13	are other sources of information that come from
14	NOAA to this industry as well, including marine
15	weather forecasts and so on. And this information
16	has value or generates value because it's used in
17	decisions that people make in the real world about
18	how to operate ships, how to load ships, how to
19	move ships, and when those decisions can be
20	improved because of information that NOAA provides,
21	that translates into a better economic outcome and

1	59 that's the value generated by the information.
2	So I want to show you an example, this
3	is not a real example, it's just a way to
4	illustrate this idea that you can measure the value
5	of information in a particular way. And this
6	example consists of a hypothetical fishing fleet
7	that decides whether to go out and fish or not
8	based on a storm forecast. So if a storm is going
9	to hit them while they're out, that's a bad thing,
10	they want to avoid that. On the other hand, they
11	want to go fishing as much as they can in order to
12	maximize their productivity. And the question in
13	this case is if we have a way to improve the
14	information to this fleet by improving the accuracy
15	of the storm forecast from 80 percent, which is
16	where it is today, the base case, to 95 percent,
17	how does that translate into value, into economic
18	value? You can see that this is a simplistic
19	example but it's a question that faces an
20	organization that provides navigational
21	information. You can see how it applies.

1	60 So the first thing you have to know when
2	you're trying to understand the value of
3	information about a particular phenomenon, whether
4	it's a storm or water levels or currents or
5	anything else, is what the actual distribution of
6	physical events is, how often does this happen, how
7	often is this a significant factor? In this case
8	storms happen 5 percent of the time. And as I
9	said, in the base case which is illustrated here,
10	the forecast is correct 80 percent of the time.
11	What happens then is the fishing fleet
12	in this case makes decisions about whether to go to
13	sea or not based on the forecast. But they don't
14	follow the forecast blindly because they know that
15	it's not correct all the time, and so you have to
16	also understand in estimating the value how the
17	users of the information actually make decisions
18	given the information that you provide to them.
19	Then you have an outcome, a result of
20	each for each of these scenarios that depends on
21	what actually happens after people make the

decisions, and finally some economic consequences with each of those. And if you multiply through this event tree with all the probabilities and the outcomes, you can determine the number at the bottom here as the expected outcome, expected value of the outcome over time.

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7 So what happens if we improve the 8 accuracy of a forecast like this, if we improve the information, the numbers change in that second 9 10 column, the forecast accuracy. Once the users 11 understand that you've improved the information 12 they will change their behavior in some way and the 13 expected value of the outcomes changes in some ways 14 corresponding to those adjustments. And the 15 difference in the expected value or payoff at the 16 bottom right corner of these two slides is related 17 to the economic value of that improved information. 18 So this is a simple, admittedly very 19 simplistic example that shows how one can estimate the value of improving information to people who 20 21 make decisions of uncertainty.

1	62 Here's a table that shows some real
2	numbers found for two ports in which NOAA provides
3	information to maritime users and others as output
4	from the port system, the physical oceanographic
5	realtime system that provides realtime information
6	about water levels, currents and other parameters.
7	There are also some forecasts made. So this is
8	information to users about factors that affect
9	operations in the maritime industry and elsewhere
10	and reduces the uncertainty, in this case with ship
11	operators, pilots and others, about what's really
12	going on in the environment and allows them to make
13	better decisions.
14	We've estimated the annual value, this
15	is shown here in millions of dollars per year, of
16	the way operational decisions change, improve
17	because of the availability of this information,
18	over what would be available if this system didn't
19	exist. So it's the same sort of exercise that I
20	just showed you.
21	And the aggregate value, annual value of

1	63 these two ports to the maritime industry ranges
2	from somewhere between five to between 10 and 15
3	million dollars a year. And you can see that the
4	places where that comes from change from one port
5	to another. The reason for that is that the use of
6	the information is specific to the particular
7	circumstances and trades in each port. So in some
8	places most of the value comes from improved
9	safety, the top line, avoided collisions or
10	groundings. In other places there's a significant
11	contribution as in Tampa from the improved
12	efficiency in situations where, because of the
13	nature of the trades in the port, the shipping
14	companies can make use of better information about
15	water levels to load ships more than they would
16	otherwise. That can be significant. Improved
17	spill response is significant in ports where
18	there's hazardous cargo, particularly petroleum
19	products that move, and spill response can be
20	dramatically improved with better information about
21	currents.

1	64 In addition to the benefits to the
2	maritime industry down at the bottom I've just
3	listed some examples of other user sectors that
4	also benefit from the availability of this
5	information. It's used in weather forecasts, not
6	just marine weather forecasts but general weather
7	forecasts, and used extensively by recreational
8	boating and fishing interests. That's not the
9	focus of what we're talking about here today, but
10	it's economically very significant.
11	Just as a quick example of what's behind
12	some of these numbers, in Houston the PORTS system
13	was introduced in the late 1990s and it is, it was
14	associated, that introduction was associated with a
15	significant reduction by about 50 percent or so in
16	the risk of certain kinds of accidents here. This
17	figure shows groundings, as a rate of grounding
18	incidents per thousand transits in the Houston-
19	Galveston area for ships in blue and for tugs, tug
20	tows in red. You can see there have been several
21	reductions historically from higher rates to lower

65
1 rates over time. The one associated with the PORTS
2 system was a reduction of about 50 to 60 percent in
3 the grounding risk, and based on discussions with
4 pilots and operators in the port, they feel that
5 much of that reduction is due to the availability
6 of this realtime information. So that's an example
7 of what's behind those numbers.

8 Let me talk a little just quickly about charts and chart data. We've done some work to 9 10 estimate the consumer surplus, which is the economic term for the kind of value added economic 11 12 benefit information that I mentioned at the outset 13 for charts, and suggest that we're looking at 14 something like 30 billion a year in that economic 15 value generated by that in the commercial shipping business and another 10 to 20 million for 16 recreational users. 17

There are also, we've done studies that show that in particular the availability of digital chart data has significant safety benefits, and digital chart systems now are in use on most of the

1 commercial vessels in U.S. waters. Even if it's 2 not as the primary navigational tool, they are on 3 board and the potential safety benefits from that 4 kind of chart data are 100 million a year for U.S. 5 waters.

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6 I just want to use these numbers here to 7 illustrate again the difference between different 8 ways of estimating economic value. So if I'm saying that the economic value surplus or value 9 10 added of chart data provided by NOAA is on the order of a few tens of millions per year, and yet 11 12 this digital chart data in particular contributes 13 to a larger amount of economic value in terms of water accidents at the bottom, the distinction is 14 15 sort of analogous to the value of the lightbulbs in 16 the headlights of my car. I drive my car to work. 17 It's critical for that, I need it for that. And 18 the fact that I have lightbulbs in the headlights 19 of the car makes that car much more valuable to me than it would be if I didn't have those. 20 Without 21 those lightbulbs I would be severely constrained in

1 how I operate my car, but I don't think anyone 2 would suggest that the economic value of those 3 lightbulbs is anything close to the real value of 4 half the utility of the car for example. And this 5 is the distinction that you have to keep in mind 6 when you think about these different measures.

7 So the real value, the economic value of those lightbulbs is what I have to pay for them or 8 9 maybe a little bit more, what I'd be willing to pay 10 for them. It's not the full utility of the 11 vehicle. In the same way, even though, let's say a 12 container ship using a U.S. port might be severely 13 constrained in its operations if it didn't have 14 nautical charts available from NOAA, you cannot 15 jump from that to say that the value of those 16 charts, the true value of those charts is in fact the whole value of that ship or the contribution 17 18 that that ship makes to the maritime transportation 19 There's a distinction, a definitional system. 20 distinction that you have to make and that's what's reflected in these numbers here. 21

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1	68 The first set of numbers is one that you
2	can add up and arrive at by adding all the
3	contributions of different components of the ship,
4	you can add up and get a realistic reflection of
5	the total value of the ship. That second number
6	down at the bottom is not one of those numbers that
7	you can add up in that way, and I'm happy to talk
8	more about that if you have questions.
9	These estimates of value that I've shown
10	here are all lower bound estimates because they
11	don't capture every use of the information either
12	of charts or of realtime current and water level
13	information, so they should be considered lower
14	bound estimates.
15	And so to wrap up, I think it's clear
16	that moving goods by water is critical to our
17	economy the way it works. And it's always going to
18	be primarily a matter of a lot of steel and
19	concrete and dredging waterways, building terminal
20	facilities, and of course the people involved in
21	those transportation systems. The contribution

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1	that NOAA's navigational services make to that
2	process is in dollar terms probably on the order of
3	one percent. That doesn't seem like much but it
4	is, like the lightbulbs in my car, a very critical
5	one percent and one that we can't neglect. I think
6	John mentioned several times in his presentation
7	the growing importance of environmental
8	considerations of efficiency. Those are exactly
9	the kinds of things that we can address very
10	effectively with the kinds of data that NOAA
11	navigational services provide. And I think that
12	the importance of that is only going to increase in
13	the years ahead.
14	So I want to wrap up with some questions
15	to you as a beginning point for a discussion of
16	this. I personally think that the kind of
17	information about the economic value of particular
18	products is useful in understanding where
19	priorities should be for funding this kind of work,
20	but it would be interesting to hear your
21	perspective on this and how you think these kinds

1 of studies could be improved or expanded in the 2 future and what kinds of information you're aware 3 of that could help us to do a better job in 4 explaining and quantifying the value generated by 5 these activities. With that I turn it over to you 6 for discussion I think.

7 RADM WEST: Thank you, Doctor. Are
8 there any questions?

9 MR. DASLER: Thank you. Jon Dasler. Ι 10 enjoyed your presentation. I guess one thing that 11 seems that it's overlooked is the impact of rocks, 12 wrecks and obstructions that are being detected and 13 the threats of those in the event, in the case of 14 ATHOS I as an example in that grounding that was 15 over 165 million in environmental damage. It seems 16 like that should be something that's being 17 considered, the efforts in detecting a lot of these 18 hazards that lie in wait that are undetected; updating, you know, pretty ancient survey data that 19 predates World War II partial coverage that's 20 21 composed of the charts, if that's being considered

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1 at all.

2	DR. KITE-POWELL: I think that's a good
3	point. It's my understanding that there has been
4	discussion in the coast survey of doing this kind
5	of analysis, what is the value of updating the
6	underlying surveys for a given square mile of ocean
7	from what exists today to modern multibeam full
8	coverage. I'm not sure that's exactly been done,
9	that that analysis has exactly been done yet, but
10	it's a good point.
11	CHAIRMAN RAINEY: Any other questions?
12	One of the things I guess that always strikes me is
13	the actual measurable observation of a 50 percent
14	reduction in groundings after the installation of
15	the PORTS systems in Houston and Tampa, and as Dr.
16	Kite-Powell points out, one of the themes I think
17	we've tried to stress in the years that we've been
18	set up as a committee is that the value of these
19	NOAA hydrographic services, the program, the amount
20	of money that the public invests in these programs
21	is a very, extremely good value for the country

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1	based on not just the contributions to the MTS
2	challenges that John mentioned, but even with these
3	lower bound economic analysis and the difficulty in
4	accounting for that, it's very clear that the
5	amount of money, the return greatly, by magnitudes
6	exceeds, the return exceeds the amount of public
7	dollars invested. So that's one of our major
8	themes and I really appreciate Dr. Kite-Powell's
9	presentation, and also we have a gift.
10	At this point we do have a little bit of
11	a change in our agenda, we're going to have one of
12	our NOAA program office come up, but what I'd like
13	to suggest we do is go ahead and take our break
14	now. Let's take a ten-minute break and then we'll
15	come back and Dave Zilkoski will be addressing us
16	on NGS's ten-year plan and to share that with us.
17	So let's ahead and break now for ten minutes.
18	(Recess from 10:15 to 10:35 a.m.)
19	CHAIRMAN RAINEY: If I could just make a
20	couple of administrative announcements. I wanted
21	to thank the public. I kicked things off and the

1 general had some things, I wanted to get right into 2 in our program, but I wanted to acknowledge the 3 public's attendance and interest in this and to 4 specifically recognize John Rayfield and Bonnie 5 Bruce from Capitol Hill, who've had a continuing 6 interest and much support for the panel. I really 7 appreciate your coming today.

8 For the panel members only, I have a 9 quick announcement on the transportation over to 10 the Reserve Officers Association. It's going to pick us up at the hotel's Pennsylvania Avenue 11 12 entrance at 5 p.m., and then it will return at 13 least to the hotel at 7:30 p.m., but I also have been asked to ask the members, putting together a 14 dinner following that reception, just folks who 15 16 would like to do that, have a show of hands and we can take down a number. Folks who'd like to go to 17 dinner with the group, could you just give a show 18 19 of hands and get a quick count?

20 (Pause in the proceedings.)
21 CHAIRMAN RAINEY: Okay. All right.

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74 Thanks very much. As I mentioned before the break, 1 Dave Zilkoski is going to be our next speaker. 2 3 Dave's one of our regular members participating 4 with us and heads up National Geodetic Services. Dave, thanks for much for coming. 5 6 MR. ZILKOSKI: Sure. Thanks, I 7 appreciate the opportunity. The last two speakers 8 emphasized the importance of having information to 9 support decisions in development and you saw some 10 interesting slides dealing with what's happening in 11 the rest of the world, which it's all going to 12 influence us. This group here has got the job of 13 looking at all three of our data services, the coast survey for the charts, which you're very well 14 familiar with, and CO-OPS for water level, and our 15 16 geodesy program, which really deals with positioning. I think a lot of times it kind of 17 18 like goes unnoticed. We provide the framework. And our shoreline component of that is pretty 19 20 obvious to most, and I think when people talk about 21 topo and the interface they start to get a little

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1	feel for it, but there's a lot of things that NGS
2	does that's probably not recognized and mentioned,
3	like dealing with these storms that was mentioned,
4	the economic value of knowing storms, where they
5	are, where they're going to be and how long they
6	last in intensity. A lot of people don't realize
7	NGS with its satellite system and GPS is used in
8	helping to monitor storms, giving them the leave
9	times, as well as hurricane intensity, modeling the
10	track and so forth. So some of our models and
11	tools are part of that process.
12	What I would like to do today, and our
13	ten-year plan is out there for comment, I would
14	like to get the group thinking a little bit more
15	about the NGS program and reading our ten-year plan
16	and providing comments from your own perspective.
17	We have a whole variety of people in the room that
18	deal from their own perspective in what it means
19	for their ports and coasts and so forth, but I'd
20	like to emphasize the interior of the United
21	States. John sees coast to coast. John mentioned

1	76 in his presentation you got intermodal. You may go
2	into the ports and start there, but you don't end
3	there, you gotta go into the center of the country.
4	So there's a lot of issues that we are involved
5	with that deal with the center part of the country,
6	so we need to think a little bit different,
7	although I understand that in the coastal
8	communities this is where most of the people live
9	and activity and economy, but I'd like to stretch a
10	little bit to think just a little bit different
11	about that.
12	So what's NGS's vision? It really deals
13	with position. We call it the National Spatial
14	Reference System. We provide that foundation for
15	everybody to be able to know where they are and
16	where they're going and how to get there, to
17	improve their maps and their products and services.
18	That's something that we do with some of our
19	limited resources. We have about 225 individuals
20	in NGS but we have to service the entire country.
21	We're looking at decreasing our infrastructure by

1	77 using new technology, satellite GPS in particular,
2	but there's other satellites in the world called
3	relays to Global Navigation Satellite System, GNSS,
4	Galileo is coming up there. And you've got the
5	Russian satellites. U.S. wants to be competitive.
6	Our job at the National Geodetic Survey is to
7	ensure that we provide that infrastructure so that
8	we are, and we're doing it, and people know that by
9	CORS, Continuing Operating Reference Stations. And
10	some of our questions that we had, how many do we
11	need in the nation? We have over a thousand CORS
12	now. Can I get away with just 200 CORS, 500? This
13	is part of our ten-year plan, what we're trying to
14	look at.
15	The other aspect that we are trying to
16	do is standards and guidelines procedures. We
17	believe that's our role. Our role is to provide
18	that foundation, that framework for people to be
19	able to say I know where I am in terms of our data

20 and then I have some models and tools to be able to 21 go out and do something myself, but it's consistent

1	78 so that when one port does it, say you're in LA and
2	doing something with positioning that when you go
3	to Long Beach you actually are connected and tied
4	together. If you're relating the water level in
5	one place to another you'd be able to transfer from
6	one data to the other, commonly looked at as what's
7	called VData, our vertical data transportation
8	transformation tool. So what kind of standards are
9	we talking about, what kind of procedures? These
10	are all the aspects that we're looking at in our
11	program.
12	We put out an annual guidance manual
13	this year and in the past we've been doing
14	something similar to this. We're trying to change
15	the way, what we're doing. We're looking out ten
16	years. John put out there some things looking out
17	to 2040 and so forth, and what we're looking at is
18	the same thing, trying to say where do we want to
19	be in ten years. I think we can kind of figure
20	what kind of size we're going to be and what kind
21	of efficiency. We don't know exactly what we're

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1	going to look at, but we know that if we're saying
2	today where we want to be in five years it probably
3	will change, it is a dynamic document, but we have
4	to think that way to be ready to be moving forward
5	to get there. I have a lot of people right now
6	that do adjustments, that do field work, that go
7	out and actually install dimeters. That's
8	changing, we're building a local capacity out there
9	so that individuals can go out and do it
10	themselves. So I'm decreasing my infrastructure
11	and I want to get it done in ten years so I have a
12	very limited amount that I actually have to operate
13	and maintain myself. But I have to build the right
14	models and tools if that's going happen. If I
15	don't do it, I will need more of that
16	infrastructure. So my goal is to decrease
17	infrastructure by building better models and tools,
18	and then how I really get the work done, that means
19	I'll have to get out there and build the local
20	capacity. We do a lot of training, a lot of
21	activities that deal with here's the standards that

80 you say you need, here's the procedures you need to 1 2 do it, here's how you do them and the training. So 3 we're changing our direction. 4 One of the biggest efforts I have to do 5 is retrain and retool my workforce because my workforce has been doing the work for years. 6 As 7 John said, it was the one of the major foundations 8 that was established by Jefferson Davis to say we 9 need to know where we're going, need to start 10 positioning ourselves, so it's been around for a long time and we didn't do much development. 11 Now 12 with modern technology that we helped develop we 13 have allowed people to go out and do some of the 14 things that 20 years ago they could not do, the 15 federal government had to do it. So we developed 16 the tools such that they are able to do it working 17 with the satellite community. So my own 18 individuals are used to doing this. I have to 19 retrain and retool those people because they are 20 the best ones to go out and teach, although 21 sometimes people that actually do the work and can

1 do it better than anybody else are not the best 2 teachers of that technology. So I have to bring on 3 new people, but I have to retrain and make sure 4 that I maintain the core competency.

5 Improving communications with my 6 stakeholders. There have been many times, I've 7 worked for the federal government going on 33 years 8 this June and I've been involved with a lot of 9 aspects of my stakeholders, but I've also been 10 through a lot of individuals that I've worked for throughout there and a lot of my own employees 11 today that keep telling me I know what they need, I 12 know what they want, I'll build it. I keep saying 13 14 well, where is the information you're getting from 15 those stakeholders that tells me what they need? Because every time I go out and talk to somebody 16 17 they're telling me a little bit different. So I'm 18 trying to improve my ability to work with my stakeholders. I just got back from St. Louis, the 19 American Congress of Surveying and Mapping, one of 20 my business constituents, and we talked about our 21

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1	82 ten-year plan, and they're actually providing it in
2	writing just like I'm asking you to provide in
3	writing, what do you want. This is where we say
4	we'll be in ten years, what do you really want us
5	to look like, how do you want us to operate, what's
6	my role, your role, what's the role of the
7	government, how do I partner with everybody to
8	accomplish what we need to do, how am I going to
9	get to where I think I want to be in ten years? So
10	I'm working with my stakeholders on that.
11	Collaboration, cooperation and
12	coordination. Anybody that knows me, I've been
13	very big in that and I've been working that for a
14	long time, and previous to, the last time you saw
15	me it was Integrated Ocean Observing System, I was
16	the IOOS project manager for almost two years.
17	You're going to hear from Zdenka Willis tomorrow.
18	She's the full time director of that. That was
19	something over the last year we've been building a
20	case for that it needs to be a full-time person
21	with some support help, and we were successful. I

1	83 consider myself very successful because I took that
2	hat off and now I can be full time with my NGS
3	director job. But part of that is collaboration,
4	working with others, getting the job done by
5	looking at where are you, what's the vision, where
6	do we all want to be. If we can agree on what we
7	want to be, that's what this ten-year plan is
8	about, here's where I want to be. I've first got
9	to get everybody to agree with me that that's where
10	we want to be and we shape it together where we
11	want to be. If we can agree on that, then we shake
12	out whose role and whose responsibility, how do we
13	get there. We start developing some
14	implementation. We need to collaborate to do this
15	because I can't do it alone. There is a role for
16	each and every person involved in this. I just
17	need to know right now what's that role going to
18	be, but really are we going to go in the same
19	direction? That's what we first gotta know.
20	Now, I'm proposing models and tools for
21	heights. This is something I've stated over and

1	84 over again and I think this is something that most
2	people in the room will appreciate. The height
3	component is now really being better understood.
4	People are understanding the height modernization
5	program and heights are important no matter where
6	you are. You talk about photometry, it's still a
7	height, a depth down to the bottom. You can talk
8	about the topography and that interface between the
9	bottom of that channel going into the topography
10	for coastal inundation. More and more individuals
11	are understanding, clearly along the coast, the
12	importance of heights, the digital elevation
13	models. A lot of individuals don't realize though
14	that the center part of our country around some of
15	our major rivers have a height problem. There's a
16	coastal inundation problem there where river
17	flooding occurs. Much of that is farmland and they
18	figure that's not that important, so you got cows,
19	pigs and other animals. It's economy so it's
20	important from that standpoint, but probably more
21	important is a lot of that pollution, a lot of

1 pesticides come down the Mississippi River,
2 Missouri, end up in the Gulf and end up having an
3 effect on the fishing industry there, the water,
4 drinking water, all of these aspects of the thing
5 is part of the height modernization understanding.
6 That's why it's more than just the coast, it's
7 inland too.

8 The development of the coast I mentioned several times, you've got to be able to develop. 9 10 There's always this issue between need to develop because I need the economy, need to build it up. 11 But you've got the environment so if you develop 12 you're going to destroy this or you're having so 13 much pollution you can't do it. There's always a 14 15 trade-off. We in NGS provide the models and tools 16 for making that little better evaluation of what you can do and how. We don't make a decision about 17 what you should do, but we provide the tools and 18 infrastructure, and that's primarily through this 19 modernization of our, what we call CORS, Continuing 20 Operating Reference Stations. Part of that 21

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1	modernization is linking the tools that you're able
2	to do better infrastructure mapping to be able to
3	monitor the ground around what you're doing,
4	understand positioning of ships down to where the
5	bottom of the keel is, where it is going to be
6	relative to the bottom of that channel. Using GPS
7	on tide gauges so you can look at sea level rises,
8	to get water level information where you really
9	need the water level information in real time, all
10	of those aspects are what we do in our ten-year
11	plan. So emphasis that we're putting in 2007 which
12	supports the ten-year plan, we're trying to
13	evaluate so we know what we have to do.
14	The integrated ocean and coastal
15	mapping. NOAA is trying to take a lead on this and
16	work with NGS, who has one of the most stringent
17	requirements for shoreline, you got coast survey
18	for the charts, we're trying to take a lead role
19	working with other agencies to be able to get their
20	information so that we can incorporate it into ours
21	and work to get our information into theirs. NOS

1	87 is working very hard with the Corps of Engineers,
2	Jack Dunnigan has been working with General Riley.
3	We get teams together to actually look at this and
4	say what are some of the things we can show today
5	and work together, work these guidelines,
6	procedures and standards to be able to share data
7	first and actually collect some information for
8	this. Some of my contractors that are doing some
9	of my information as well as ourselves will be able
10	to give to the Corps of Engineers, and vice versa,
11	the Corps's got some of their data they're
12	collecting that they can actually give us. That's
13	a very important aspect of what we're trying to
14	work with today, because we truly believe that it's
15	collaboration and cooperation between each other.
16	We all have our mission, though. You
17	can't sell that short, we have a mission that we
18	have to meet. So we can't, you know, go too far
19	off our mission and not be able to do it. Same
20	thing with the Corps of Engineers, but we truly
21	believe that we can do this by working together as

1 long as we understand what our mission is, as long 2 as we understand what our requirements are, and we 3 agree upon how we're going to work together in 4 doing so.

5 Streaming GPS data through the web 6 searches. This is not just GPS data but it's a lot 7 of our other data. New technology, people want it 8 on the fly, pick up their phone and get that 9 information for positioning. If you're going to do 10 realtime positioning you need this information, and 11 we're balancing what we should be doing and working 12 with industry, private industry, and saying what's 13 our role. They want us to stream this data so they 14 can pick it up. They don't want us to actually do 15 positioning corrections for their customer.

16 Standards and guidelines, we're behind 17 the curve on some of our guidelines for doing this 18 positioning. We're really stepping up to the plate 19 and saying we need to focus on getting some of our 20 old ones that are out there, like we have 21 guidelines out ten years old dealing with GPS which

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1 are just so outdated we aren't using them, we have 2 standard operating procedures that supersede those, 3 we're going to try to make that more out there and 4 get it working with industry to make sure we're on 5 track the way we think we should be.

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6 Data processing tools, we're the experts 7 on how to process the data, how it fits into our 8 data. We are not the experts or shouldn't be the 9 experts on getting those tools and integrating them into user friendly formats. We actually do a 10 11 terrible job making something user friendly. Our 12 employees find the tools we develop are useful for 13 them and they know how to do it, we've been doing 14 it for years, it's our system. But on the outside 15 to make it really user friendly for someone who 16 doesn't understand the system, that's where value 17 added comes in, working with industry to take our 18 tools that we do understand and do have quality 19 assurance, we have control over what goes in, to 20 take that same information and create something 21 better.

1	90 So real briefly, going through the main
2	how we're going to achieve this vision, but
3	modernize with CORS, what does that mean? It's
4	transforming these into foundation CORS. There's a
5	thousand CORS, I can't maintain them all. Actually
6	NOAA, out of these thousand CORS NOAA actually owns
7	and operates less than something like 7 or 8
8	percent. We have very few. NGS in particular only
9	has a handful that we actually own and operate.
10	We're changing some of that, we're selecting where
11	we think we need to have them and we're co-locating
12	as many as we can, or we're trying to do this so
13	that we can have this global sea level rise aspect
14	of what we're trying to monitor. But most of these
15	CORS is a cooperative program, we're collaborating
16	with all of our users. They put up the GPS
17	receiver, they maintain it, they own it, they
18	operate it and give us the data. We store the
19	data, we put it into our system and give it back to
20	them. But they do all the work.
21	Now, there's some logistics there. When

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1	the system goes down many times they're really not
2	looking to know it's down. We know it's down
3	before they do because we get the data. We have to
4	improve that process if we're really going to
5	maintain our expertise with the limited resources
6	we have. So we're working with them to take on a
7	little bit more of the ownership that when the
8	system is down so they can be notified to fix it.
9	When they change something on the system, they go
10	change an antenna, people don't realize that when
11	you change an antenna, you change the position.
12	That can be up to ten centimeters. They don't
13	realize the importance of it changing. We see it,
14	we can see the changes down below the centimeter
15	level so we know what they've done. We know
16	sometimes with the system something's happening,
17	it's actually leaning, we see changes of a few
18	centimeters. But we're trying to get them in a
19	partnership saying if you're going to be part of
20	this program, we need you to do a little bit more.
21	We do want to own and operate a little bit more,

1	92 and maybe own is not the right word, we want to be
2	able to have more control over some of these where
3	when they do change antennas that we're doing it.
4	There is a handful that we do. We still want to
5	have a partnership because once again it's a cost
6	that they're willing to do because it's important
7	to them. But they just aren't treating them as
8	much as we would and we need to have this
9	foundation.
10	We're looking at trying to make these
11	CORS sites more modernized through the whole, what
12	I call the GNSS. You have GLONASS which is now
13	starting to be supported. Russia is actually doing
14	some more support and they are putting out and
15	talking about trying to make it how it fits and
16	it's free to help other economies inside Russia.
17	They're talking to their own people about mapping,
18	how we can help them, talking to the shipping
19	industry, how GLONASS like our GPS can help.
20	Japan, or India is working with NOAA trying to
21	support it because they can see the importance of

1	93 it. So you're talking about the shipping industry,
2	international, they're really into the global
3	positioning system, they have a huge international
4	involvement that NGS plays a role in and that's
5	keeping GPS competitive with the other sellers.
6	Because we don't want them driving the trade, we
7	want to be part of that process. We want to be the
8	leaders in there and so far we are. We want to
9	build the best models and tools we can. At the
10	same time we want to incorporate their signals, so
11	we need to be able to look at how GLONASS fits into
12	the signals. The more satellite signals you have
13	the faster you can compute something and more
14	accurately compute it to get something in a few
15	seconds where it can take you an hour.
16	So that's part of what we're trying to
17	modernize. Field diversion theory, GO modeling, it
18	is truly something that many people do not
19	understand, really don't get the importance and
20	it's very expensive to do. To get an accurate GO
21	model that people can use satellite information and

	94
1	get a height to a few centimeters is very, very
2	expensive. We have new technology now that we
3	believe we can get to it, but it's going to take
4	some resources, so we're looking for feedback on
5	how to accomplish this. This is going to be once
6	again a collaboration of a partnership. Maybe
7	we'll have to do it by regions. Clearly the Gulf
8	coast and southeast U.S. has a big need for more
9	accurate height models. And you can't do it by
10	discrete point, you have to find something more
11	accurate. Maybe that's this new technology dealing
12	with blind arm information from satellites or
13	aircraft or helicopters. You still need
14	information about that GO to be able to make that
15	useful. A gravity field model is something that
16	we're focusing on that's truly going to move height
17	modernization.
18	So we need some input and some priority
19	setting, and we're going to really move in our
20	ten-year plan to put a little bit more resources in
21	here, which means some things aren't going to

1 we'll have to stop some things. We're looking at 2 this over ten years where we want to be and also 3 looking at how we're going to partner to get that 4 done. We have the expertise, we don't have all the 5 resources, but a lot of the universities out there 6 do.

7 The coastal mapping program, trying to 8 move that more toward Integrated Ocean and Coastal 9 Mapping, I mentioned earlier about the Corps of 10 Engineers, how are we going to do that? It's going 11 with greater automation. New sensors, we really 12 need to get something more to an active from a 13 passive sensor integration and you can have all of the activities into one, fusing different aspects. 14 15 We integrated the positioning aspect of GPS with 16 all of the satellites or all of the remote sensor That was when the first activities of 17 activities. getting more accurate location where you're in 18 space with your own, over time we took a major leap 19 20 in making that happen with airborne GPS.

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The next item, how do you integrate that

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1	with different sensors, how do you brake, take a
2	digital camera with the wider, with other remote
3	sensors and integrate them into one. You get a
4	better product that meets more individual's needs.
5	But not forgetting about that, you can't, you can
6	actually develop a system that will meet
7	everybody's needs, but is it the most cost
8	effective system to do? You have to look at that
9	also and how you get there. Can't do this
10	overnight. That's part of what we're trying to
11	look at.
12	Improve and actually maintain local
13	capability. I started off by saying I have
14	individuals that were doers. I'm trying to turn
15	them into trainers, building the local capacity.
16	But you can't train someone to do something unless
17	you understand it yourself and know how to do it.
18	There is a balancing act, I have to be able to keep
19	doing some stuff, figure out how to maintain the
20	core capability, how do I transition. I need
21	people to understand, you're going to develop a

1	97 next generation of something better, you still need
2	that, but we do do a lot, we use all of the
3	satellite technology and we understand that. But I
4	have a lot of people that are what I call
5	buttonologists. They know how to push buttons,
6	they push the buttons and out comes a value.
7	You've got to have those individuals that know
8	what, when I push that button what's really
9	happening. The person that's out in the field
10	doing it and pushing the button and bringing it
11	back and putting it all together is an important
12	aspect of it, but you need someone in front of
13	that, someone in the back end of that making it
14	happen so you can build the next generation and
15	understand the process, so you can build and work
16	with industry to try to build that. I need
17	industry involved in that process. So we are
18	working on that.
19	Global leadership strategy. We have
20	been heavily involved in the international
21	community and national community both ever since we
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1	98 started 20 years ago, but we really, in the last 20
2	years we got less and less because of shrinking
3	budgets, shrinking number of resources, things
4	shifting around, responsibilities. We did less and
5	less nationally. We're pretty well recognized for
6	our position aspect of it, internationally we lost
7	a little ground. We're getting back into that and
8	clearly, once again, from the satellite
9	international world as well as with remote sensing,
10	dealing with just only instrumentation, we need to
11	be part of that world leadership, we need to be
12	engaged in that. We want to be at the table
13	setting policy. We want to be at the table helping
14	them to build the strategy for implementing that
15	policy. You can't do that unless you're engaged.
16	So we are doing a more active role now.
17	We actually, for the satellite
18	information, we have been asked to be one of the
19	primary data assembly centers for doing the
20	international reference. Let's do it for the
21	world. This is the center. We have been asked to

1	99 be part of that process and maybe lead the team.
2	We also produced orbits for our satellites. We are
3	the number one agency now for doing orbits with the
4	others. This is around the world. There are eight
5	entities, we are number one, we have been for the
6	last four weeks, our orbits are better than the
7	rest of the nation. Ours have been the best over
8	this last four-week period.
9	We are getting in the front and doing
10	the leadership. We were, two or three years ago I
11	guess, we were number six and seven of that. We
12	took an active role. If we are going to be in the
13	driver's seat we better get our act together, and
14	we have done that. More of the leadership role.
15	So how can you help? This is where I
16	need part of it, I think there are some people
17	on the committee that understand what we're about.
18	I think there are some that are getting a better
19	understanding and others that maybe will get some
20	more, but I would like you to, if you would, take a
21	look at it and think how can we better integrate

	100
1	some of the capabilities into NOAA's activities.
2	You know what you need from some of your
3	activities, you know what you're dealing with.
4	What's the positional element that is missing out
5	of the ten-year plan? How can we improve our
6	capabilities and be a part of the MTS system? I
7	think that we are once again I think it's
8	understood that we're going to always be there.
9	You have positioning that needs to be developed. I
10	don't think we thought about that, saying that I
11	need information. I'm going to put some new water
12	level gauges in, bigger ships. What is the
13	positioning requirements for that, what's the need
14	for positioning a ship, the keel of a ship? Is it
15	there, is it necessary, what's it going to be in
16	2040, is it going to be critical to you? If it is
17	you ought to figure out how that leads to what I'm
18	trying to do and how we make that fit together.
19	Positioning information for the
20	environmental needs. You're going to need in these
21	ports, if you're going to be competitive with the

1	101 rest of the world, you're going to need some
2	positional information dealing with these ports and
3	you have to meet some tough environmental issues.
4	I would like you to think about that. Just the
5	ports, I would like you to think about this is
6	going to come across the rails, it's going to come
7	across the roads and is going across Canada.
8	You're coming down from the center part of our
9	country into New Orleans. What's the positioning
10	requirement? Are you going to be competitive
11	inside the organizations? What do I need to do to
12	make it competitive?
13	National height modernization, I think
14	we are making some strides where people are saying
15	I need it for my state, I need it for my area. The
16	me me me type thing, they're starting to get
17	organized and understand we, you know, we have
18	common needs, we can collaborate and do something
19	as a whole. I saw this in the IOOS. IOOS, I would
20	like to believe I was part of one of the main
21	things of getting people talking to each other,

1	102 because most at the time that's all it takes, once
2	they start understanding their roles and
3	responsibilities, they start working together.
4	They have a common interest, common vision. Maybe
5	I need it here, maybe local. I was just in the
6	Gulf Coast in Alabama, I had a meeting, I had
7	Alabama, Mississippi, Louisiana, Texas all in the
8	same room all talking about can we do this for our
9	region. They stopped talking about I. We talked
10	about Louisiana said I can work with LSU, work with
11	Mississippi State and I'll do this part, you do
12	this part. Texas A&M said I can work on this, how
13	it fits Alabama, starting talking about their
14	level. They mapped out their own rules refocused
15	on region. But it's still part of national height,
16	here's what my region is interested in. People
17	have information, everybody has that. But how do
18	you build this collaboration, get people to say I
19	can help you out when something is not working over
20	here, I got the expertise, I can help you, and
21	that's creating the common vision theme and

1 planning out roles and responses.

2 So I think you might be able to help me, 3 looking at am I missing something in there or can I do something slightly different. I think that's a 4 5 real need and issue inside my agency, budget ups 6 and downs and how we're trying to change from being 7 the doers to the trainers via a different set of 8 expertise, and via less employees today than I had 9 a decade ago. I had 277 employees ten years ago. 10 I got 225 today. It was planned. We developed an 11 outsourcing plan in the year 2000 saying we need to 12 get competitive to be able to do our mission, we 13 need to be competitive inside what we do, what we 14 do best, what can private industry do better than 15 us and we worked with them so that they understood 16 what we could do and what we do best, so we worked at that. We knew we were going to decrease. 17 Ι 18 actually have and do more work today than I did ten years ago. If you count all of the contractors, I 19 20 have more bodies doing things than I did ten years Different roles and responsibilities. But I 21 ago.

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1	think it's individually that you have in your mind
2	the same issues. How do you maintain that? That's
3	what I'm trying to say, that you might be able to
4	provide to me from your own perspective here is
5	what I think you should do, you should be thinking
6	about this or here is the strategy to be able to do
7	that. I think you might be able to help me out in
8	that respect and so you're looking at that, I would
9	appreciate that. We put this out for public
10	comment and appreciate if you would spread the word
11	and get people to put into it.
12	I have been telling this everywhere I

12 I have been telling this everywhere I go, I have been to several stakeholder meetings and 13 getting a lot of informational feedback. I believe 14 15 in your package though there's a specific request so that the committee can address some of those 16 17 questions I just laid out in that by the next 18 committee meeting, that you come with some kind of summary to me that I can include in modifying my 19 20 ten-year plan and then go out in terms of a publication. We will be updating it after we get 21

1	105 to the end of all these comments and get
2	information from the stakeholders by the end of
3	April, an updated version of it. The comments are
4	not all huge changes, more the comments are about
5	the implementation of it rather than the actual
6	strategic plan, which is reasonable and
7	understandable. Most people think that's a good
8	way to go, how are you going to really get there,
9	what's your implementation plan? We are working on
10	that but until we get this really mapped out, this
11	ten-year plan has some, the first year, two
12	milestones we think we need to do, and now it's a
13	ten-year, we tried to keep it a, more of a high
14	level document and say if we all agree we want to
15	go there, we develop that level of implementation
16	and I use this document every year to develop my
17	execution plan for the year, it has to fit this
18	document. So I'll go out with the Federal Register
19	after I get all of the comments through the system
20	and then that will happen later on probably. After
21	I get your comments I'll go to the Federal Register

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1	and next year we'll probably finalize it. I'm
2	thinking there's a lot of different times to really
3	put comments in here. I'm really interested in
4	making sure if we're talking about a true ten-year
5	plan I got all of the individuals' comments so that
6	I can really move this forward in that direction
7	and use it for the next ten years. Although
8	realizing as my environment changes, will change,
9	so we will be revising it. Part of my process is
10	to look at this every year. I don't suspect we'll
11	change the ten-year plan after every year. Once I
12	develop an implementation plan, that will change,
13	but the ten-year plan should not change every year.
14	If we do it right it should last ten years before
15	we have to change it. But so that's what I think,
16	it's in your books like I said. That's all I have
17	to say.
18	CHAIRMAN RAINEY: Thanks very much. I
19	wanted to make a couple observations. As you know,
20	you and your office has briefed us on a number of
21	the programs, very important programs out of NGS.

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1	107 As you mentioned in your presentation, we had a
2	meeting in the Gulf area after Katrina and Rita and
3	had an opportunity to highlight, you know, from
4	among the navigational services the critical
5	important work that you do with the quick aerial
6	photometry and how important that is and much of
7	that is incorporated in our report. And I wanted
8	to comment on the second to last or third slide
9	that you have there, that's a great start to help
10	us. It's clear and I always have been impressed
11	with NGS, the hydro service programs that we deal
12	with. As I mentioned just a little bit at the past
13	presentation, one of the things we see over and
14	over are these really fundamental framework data
15	sets. I'm hoping as we look at the materials and
16	plans we have time tomorrow to do that, but if you
17	can help us, you've got a multi-headed monster
18	there and if we can kind of look at the
19	capabilities, we do have expertise on the panel in
20	this area and what we can do with you to kind of
21	frame the issues so that we can give you the

	108
1	deliverance that we're able to do and help you in
2	focusing your plan. I'm particularly interested in
3	working with you and here tomorrow as well, how NGS
4	and all the hydro services play as we move forward
5	with the IOOS we've been talking about, but now
6	also the Integrated Ocean and Coastal Mapping and
7	how the interplay will be among our programming
8	offices. That's sort of cross-cutting initiatives
9	and that's within our federal government, also
10	internationally. I think your hands or fingers are
11	in a lot of pots and I look forward to working with
12	you to tailor some bite-sized chunks we can handle
13	and help you with. I don't know if there's any
14	other questions for Dave on that.
15	DR. LAPINE: The maritime industry
16	really hasn't capitalized on what you do in South
17	Carolina. Southern Railroad can double the tonnage
18	on their existing rails if they only knew where the
19	trains were more accurately and how fast they were
20	going. They're going to use a CORS network to
21	begin loading the rails with more tonnage. They

1	109 actually turn away tonnage right now. I think that
2	the railroads are struggling for business and they
3	actually turn away business because they can't put
4	enough trains on the existing track and they can't
5	build any more tracks alongside the ones they
6	already have. South Carolina Department of Transit
7	has given me over a million dollars to amplify your
8	CORS network at a density of 70 kilometers spacing.
9	They're going to build roads with machine control,
10	two GPS antennas, one on either side of the blades
11	coupled to an autocad system that has the design of
12	the road. The earthmover will move down the
13	corridor and the blade will be adjusted and
14	considered according to the input on the GPS
15	receivers. Within a year South Carolina will have
16	one-centimeter positional accuracy in real time,
17	two centimeters in the vertical. If you put that
18	on a ship you have a moving tide gauge, you have a
19	moving current meter on the location of the ship
20	itself. You put one on the bow and one on the
21	stern. If you did that years ago you'd basically

	110
1	have an inertia system that acts like exactly the
2	direction and at what speed the ship is moving, you
3	can put that ship alongside a pier in more adverse
4	conditions, you can bring it in with less underkeel
5	clearance because you know exactly how far the keel
6	is off the bottom or exactly how far the highest
7	antenna is from the bridge it's got to go under. I
8	think it needs to be exploited if the technology is
9	existing. It's just a matter of coupling it with
10	us to understand how it can be applied more towards
11	the maritime industry.
12	CHAIRMAN RAINEY: Helen Brohl.
13	MS. BROHL: Dave, how are you engaged
14	with the Interagency Committee on GPS?
15	MR. ZILKOSKI: We provide reviews and
16	input to everything that the PNT puts out. It's
17	part of NOAA, that's the NOAA rep to it. Anything
18	they put out we review through it and vice versa.
19	And then just recently, because we started asking
20	some of the input of what do we need for GPS to be
21	competitive, we're providing input from that

1	111 standpoint. I'm not sure in terms of specifically
2	what you mean, but we do provide input. NGS itself
3	is not the lead on that, someone else is.
4	MS. BROHL: The reason I ask, I presume
5	you probably had some impact in just learning about
6	the committee and the types of things they do. But
7	yesterday in a meeting we learned that one of
8	their representatives was at one of our meetings
9	and said admittedly they're very much engaged with
10	the nautical aspects of GPS and that the marine
11	components really haven't arisen yet. We
12	appreciate the fact they came to us and want to
13	participate in what we're doing, I think to the
14	extent that I'm somewhat ignorant that perhaps we
15	can talk a little bit about ways to make those
16	connect. It sounds like it's your office with NOAA
17	that has made the most of that group.
18	MR. ZILKOSKI: Yes, we're the ones.
19	MS. BROHL: If you're going to make
20	policy for GPS for this country
21	MR. ZILKOSKI: You're absolutely

1	112 correct, every chance we get we try to make the sea
2	side as well as the land side into the arena. The
3	air is the driving force when you talk to them. It
4	seems like there's you go to the Transportation
5	Research Board, which is another one that is
6	supposed to be transportation that should be air,
7	land and sea, when you go there you don't hear
8	anything about sea at all but it's all about land.
9	I'm on several of those committees and all three
10	hats keep popping up. I keep saying you need to
11	get more involved. That's another group that
12	really does not think about this. That's
13	intermodal. They start talking about their
14	trainings and so forth, but they will not touch
15	base with the I don't know what the issue is
16	with that. But that's another one we're trying to
17	do. You might be able to help in that respect too.
18	CHAIRMAN RAINEY: Thanks very much. Our
19	next presentation is on the Committee of the Marine
20	Transportation System and briefing and discussions,
21	and our next speaker needs no introduction with

1	113 this group, but I'm going to ask you to bear with
2	me here. I wanted to talk about Helen's new
3	positions. We are really delighted she joined us
4	today. In July 2006 the Secretary of
5	Transportation announced the appointment of Helen
6	A. Brohl as the first executive director of the
7	Executive Secretariat to the Committee on Marine
8	Transportation Systems. In this capacity, Ms.
9	Brohl reports directly to the Undersecretary of
10	Transportation for Policy as directed by the CMTS
11	charter. The Executive Secretariat serves as a
12	technical advisory body to the CMTS Coordinating
13	Board. The director keeps the Coordinating Board
14	informed of all the developments, including matters
15	to be brought before the committee, necessary for
16	the Coordinating Board to fulfill its
17	responsibilities. The ES Director is the Executive
18	Secretary to the Coordinating Board. The Committee
19	on the Marine Transportation System was established
20	by the president's Ocean Action Plan to create a
21	partnership of federal agencies with responsibility

114 for the Marine Transportation System ù waterways, ports and their intermodal connections ù to ensure the development and implementation of national MTS policies consistent with national needs and report to the president its views and recommendations for improving the MTS. The CMTS is chaired by the Secretary of the Department of Transportation, Mary Peters, and is comprised of 14 cabinet level departments and several independent federal agencies. For the previous ten years Ms. Brohl was the Executive Director of the U.S. Great Lakes Shipping Association, an organization established in 1956 to represent U.S. vessel agents in the
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14 in 1956 to represent U.S. vessel agents in the
15 Great Lakes. She recently served for six years as
16 the president of the National Association of
17 Maritime Organizations. Helen served the past four
18 years as the national coordinator for the Marine
19 Navigation Safety Coalition. Ms. Brohl was a
20 member of two federal advisory committees, the
21 Great Lakes Pilotage Advisory Committee under the

115 U.S. Coast Guard and was Deputy Chair of the 1 2 Hydrographic Services Review Panel under NOAA. We 3 all know what elevated Helen to her current 4 position as Deputy Committee Chair of the 5 Hydrographic Services Review Panel, so Helen, 6 welcome back. 7 MS. BROHL: I'm going try to move. 8 Well, you know how antsy I am. 9 I think the only reason I got the job is 10 because I was on the Hydrographic Services Review 11 Panel. Let's make that very clear. 12 I can tell you there is no group I would 13 like to be with more than you guys because I think 14 this was truly a privilege to be on the 15 Hydrographic Services Review Panel and it was truly 16 a privilege to work with everyone. I also know 17 that this might be one of the toughest audiences 18 you could have. But that's okay. I'm looking for feedback. We believe in the value of federal 19 20 advisory committees and we'll talk about that in a 21 little bit about in terms of what you're doing.

1	116 I'm hoping we will take some time today and try to
2	be back tomorrow and talk a little bit more. I
3	really want to hear from you guys.
4	I'm sorry Bill Gray is not here. Bill
5	Gray, as you know, I think you told us a number of
6	times in this group that he did the INTERTANKO
7	report, I-N-T-E-R-T-A-N-K-O. In many respects he
8	is the father of MTS, the Marine Transportation
9	System, in his assessment of the U.S. Marine
10	Transportation System in the 1996 report, which
11	Congress picked up, and then that led to a
12	provision in a Coast Guard authorization bill,
13	which led to the creation of the MTS initiative and
14	a report back to Congress. But I was wishing that
15	Bill would be here because he's one of the toughest
16	critics. He doesn't mince words, he tells you what
17	he thinks and I was hoping he would be here because
18	to me it was an ability to kind of bring things
19	full circle for Bill. There were a number of
20	things over the couple of years that we met under
21	the HSRP and he kept trying to bring us back to the

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1	navigation technology things and navigation safety.
2	And there are agencies talking amongst themselves
3	in the federal government in support of navigation
4	safety, a number of issues which we talked about
5	here. So I'm sorry that he's not here, but at some
6	point we'll try to get with him and talk with him.
7	I'm going to go through some historical
8	stuff because I think it's good to have point of
9	context. A number of you know this background, a
10	number of you were engaged in the concept of marine
11	transportation ten years ago. I do want to kind to
12	go through this because I think chronology makes it
13	more important now. The 1999 report to Congress
14	talked about the enormity of the recent transition
15	and certainly talked about how important it was to
16	the economy and welfare of our nation. But it
17	didn't necessarily have a strategic plan in there.
18	And it was my experience being in the private
19	sector that when the federal team would go and
20	brief the Hill or be at meetings and talk about the
21	MTS and how wonderful it is, that people would

1	118
1	often raise their hands and say well, okay, but
2	what does that mean to me, what does it mean to a
3	line item, to a task, what does it mean to actually
4	doing something with this. And mostly what people
5	said is it's going to cost billions and billions of
6	dollars to fix the MTS, which caused people's eyes
7	to glass over and say okay, I got other things to
8	do on my plate, so in that respect the clarity
9	wasn't there. But the need, the value of the MTS
10	was apparent.
11	Out of that, though, came the creation
12	of the Committee on Marine Transportation System
13	and the Marine Transportation National Advisory
14	Council. MTSNAC still exists today. The
15	International Committee on MTS was a mid-level
16	policy-making committee to talk about ways to
17	actually take the 1999 report and do something with
18	it.
19	They had dialogue sessions around the
20	country, there was a real considered outreach
21	effort, there were things produced like this. We

1	119 have one in our office, one of the original ones
2	NOAA produced that talks about the value of the
3	MTS. There was outreach, they were getting a lot
4	of feedback from federal agency people engaged in
5	this ten years ago, there were a lot of committees
6	and meetings. Yet there was constant frustration
7	on how do you take these great ideas and make them
8	go farther. When you combined that with 9-11,
9	which changed a lot of dynamics and emphasis on
10	marine transportation system, diverted a lot of
11	interested resources, in the end it somewhat,
12	people just got a little exhausted. Also, one of
13	the most important points when people say that it
14	never went anywhere or did anything or that it was
15	a failure. And clearly a whole list of things you
16	don't want to do to make things work, one of them
17	is when you tell people who are very busy that, by
18	the way, in addition to what you're doing today and
19	what you get paid for, you're going to spend a lot
20	of time on this whole new other thing called the
21	CMTS and in your spare time you're going to try to

1 save more time with transportation in the country. 2 Not real functional, with all due respect. At some 3 point you go back and get a whole list of e-mails 4 and a whole list of things on your plate, so it's 5 not a fair thing to ask people to do. But a lot of 6 things did come out of it, a lot of effort came out 7 of it.

8 Time line here. The CMTS really still 9 existed up until December 2004 when the president 10 responded to the OCR, the Ocean Commission Report. 11 Actually I think this is one group that knows the 12 Ocean Commission Report. A lot of groups, 13 especially in maritime, have not, weren't really 14 tagged into it, didn't really notice there was a 15 whole session in Congress on transportation. The 16 president was required by Congress to respond to 17 that and he did, by agreeing with the Ocean 18 Commission that you should take the old ICMTS and 19 turn to the cabinet level for policy-making, give it something with some legs and with policy-making 20 21 capabilities. So in December 2004 CMTS was

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1	created. By December, excuse me, by July 2005 a
2	charter was created and approved by the cabinet.
3	Essentially this is what the new CMTS is supposed
4	to do, create a partnership to talk about the
5	waterways and supports, supports and integral
6	connections. Every time when we get together and
7	talk, you talk about those connections, that you
8	can't just always think the ship getting to the
9	pier, the container getting to the dock, you have
10	to think about what's beyond there and those
11	connections. I think Mr. Vickerman made that clear
12	to you today. I apologize, I wasn't here for your
13	presentation, but I actually have your presentation
14	on my laptop and in my spare time I will review it
15	to make sure I'm up to snuff on what's going on. I
16	think you all agree, and you've heard this before,
17	you like policies that are consistent; that there
18	one vision for Marine Transportation System that we
19	all understand, that is the Marine Transportation
20	System and the left and right hands of the
21	government are talking to one another, that one

1 agency doesn't put a policy out or by proposed rule 2 it just is in conflict with another proposed rule. 3 And so we all know there's a need.

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4 I put this up here because it looks 5 really cool, it looks like I really have an 6 important job and I get to hang out with really 7 important people. You know, it is cool in many 8 respects because you've got a lot of departments 9 engaged, a lot of agencies engaged, a lot of 10 offices engaged, but in reality let me just say --11 off on a tangent already. I can see I'm going to 12 go all over the place. Anyway, I already said the 13 charter was signed and there have been three 14 meetings of the CMTS, but with all due respect, 15 those meetings more entailed talking, there wasn't 16 any policy that came out that in turn was passed, 17 it was just to talk about what's in the charter. 18 You'll like this one, there's the -- it's the MTS 19 National Advisory Council that is supposed to have, 20 at some point, some kind of interaction with 21 Congress and the public at large.

1	123 This is what I started to say. While
2	it's really cool that I can go around saying at a
3	cabinet level committee what I think really is
4	great is the fact there's a coordinating board.
5	This coordinating board is an agency head and
6	that's higher than the old ICMT is, this is a group
7	that sits down and talks about some issues that are
8	important, how are we going to tackle some of these
9	things, what are the hot stuff we need to do to
10	improve the Marine Transportation System. It just
11	so happens that in 2007 the chairman of the
12	coordinating board is Admiral Lautenbacher, and I
13	can't say enough about the enthusiastic support
14	that NOAA provided to this and the interest they
15	have. I'm not just saying this because Jack
16	Dunnigan is in the room, but the fact is they are
17	on board a hundred percent, as are the other
18	agencies, which includes the, when you're sitting
19	at the table of 22 people, you have Admiral
20	Lautenbacher from the office of the Secretary of
21	Transportation, the head of MARAD, Admiral Allen,

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1	he's a celebrity, but we get Admiral Greg Bowen,
2	and when I think around the table, FMC and Energy
3	and the White House offices. Just about everybody
4	that you can imagine should have some interest in
5	the Marine Transportation System, and that's
6	incredible and that is not what happened before.
7	What else is new? This time there is a
8	staff office. Gary Magnusson, who some of you may
9	know, he works with NOAA, Gary is detailed to our
10	office from NOAA, and he reminds me often about two
11	things. When I get frustrated he'll say, Helen,
12	you had to spend ten years on the ICMTS to know how
13	much you're doing and should feel really good about
14	it, because I did a lot but never had full-time
15	staff like it has now. So in July I was brought on
16	as a director. So there really was nobody to do
17	the follow-up. Because we all know whether you're
18	selling something or whether you're doing business,
19	its 5 percent sales and 95 percent follow-up, just
20	about everything we do in life, and the follow-up
21	is what makes or sets us apart from, you know, the

125 people who just can't get to the follow-up. 1 So fortunately there's an executive directorate, 2 3 that's really just a fancy term for the staff 4 office. We support the functions of the CMTS, the 5 coordinating board, and we're the facilitators to 6 help the interagency tasking teams to try to 7 address the issues that are real important. 8 One of the mechanisms to address issues 9 are integrated action teams, they're tasking teams, 10 project teams. They were meant to be led by an 11 agency, so the Executive Secretary is really more 12 in a facilitation mode and not to be the R&D 13 people, the writers of the big white papers, that's 14 not really our job. It was intended our integrated 15 action teams were just a mechanism to get an agency 16 to take the lead, and again, they're not the sole creator of whatever comes out of it, just that 17 18 somebody has to take on the lead, has to be the 19 champion, and so the integrated action teams are 20 one way that we make that happen. When I came on 21 board in July I inherited integrated action teams.

1	126 The first was a national strategy, which was no
2	surprise because they attempted to do national
3	strategy the first time around. And just like Dave
4	talked about his ten-year strategy, you really do
5	have to kind of lay out the goal of the national
6	strategy, which was actually to be more defined,
7	have some real defined tasks. That would help set
8	you on the course to improving the Marine
9	Transportation System. It's not a Coast Guard led
10	task. Let me emphasize again, it's not a Coast
11	Guard task, it's an interagency task. This
12	integrated action team effort is kind of on I would
13	say fast wouldn't say it, but it's got legs.
14	The process with that was that the Coast Guard held
15	a workshop in July, it was not publicly, they had
16	individuals just from industry, it was not catch as
17	catch can, really it did cover just about every
18	subject that could be covered and they took
19	comments. The comments they heard from industry
20	are the comments we all know, there were no
21	surprises at all. And the national strategy, then

1	127 the Coast Guard took those comments, developed a
2	draft, ran it through their interagency group,
3	their task team and sent it back out to the people
4	who attended the workshop. They took those
5	comments in, and I do believe that Bill Gray got to
6	comment on it. I wanted him to comment on it in
7	particular because I felt that he had vested
8	interest in it. And he said exactly what I thought
9	he would say, and he was out there advocating like
10	you would have expected him to. That team meets
11	weekly and they have gone farther, as I mentioned,
12	with having a broad brush strategy, trying to come
13	up with some action items to move forward. That
14	strategy, though, we are hoping that can be
15	presented to our coordinating board in July of this
16	year. And at that point then the coordinating
17	boards would approve, send back, decide to send it
18	to the public. I can't presume what they would or
19	would not want to do. I think that it's a pretty
20	solid strategic plan. But we have a better feel
21	for that in that I think they would say a month and

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1	a half for the second integrated action team.
2	I inherited when I came on board, was
3	doing a MTS assessment and it was always thought of
4	if we don't know what you need, then you do an
5	inventory, and an inventory of the Marine
6	Transportation System is an enormous task itself,
7	bogs you down. You don't get the stuff that needs
8	to be dealt with immediately. I think that
9	industry kept saying at the workshop we don't want
10	you doing a study and white papers, don't want
11	another 199 assessments, we know those issues. We
12	want to get in there and take some of those
13	issues the MTS assessment like of the Corps of
14	Engineers has been modified. The Corps of
15	Engineers has been doing, I think this is White
16	House initiative, JFW probably understands it
17	better, but there's an asset management program,
18	look at your assets and how you manage them, and
19	when the Corps looks at their assets, which are
20	often real assets like locks and dams and dredges
21	and equipment and things like that, they can

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1	129 analyze, they have a model by which they can
2	analyze the risk assessment of level of investment
3	to maintain that improvement, but it turns out that
4	model can be applied to known real assets, can be
5	applied to services, services NOAA might provide in
6	support of navigation or that the Coast Guard might
7	provide. And so the goal now is to determine your
8	priority are,s, where are your interests, where are
9	the priority interests in this effort and apply
10	them across the board. So instead of somebody
11	looking at it and saying there's lots of things
12	that need to be done, you can actually say this
13	needs to be done, this is the current investment,
14	this is the risk in graph form. If you don't
15	invest a certain amount or invest this amount, it
16	will be here, if you invest this amount it will be
17	here. So that's what our goal is.
18	I have to be honest, I will say after a
19	year, because there's no money, it's in the
20	beginning stages. However, it appears that the
21	Corps of Engineers has been able to work out a way

1	130 to perhaps begin the literature search for the
2	basic work, but the modeling capability has already
3	been assessed out of the Vicksburg office, and now
4	again this is Corps of Engineers' lead, but the
5	model will apply to all MTS assets, both real and
6	in other forms. For maritime data collections the
7	Maritime Administration is leading this interagency
8	effort. The Maritime Administration along with
9	many others check maritime data. Now MARAD tends
10	to clarify or check data and use it for economic
11	development purposes, so it tends to be static
12	data, but it was clear there were a lot of people
13	checking maritime data around the federal
14	government. In fact, an inventory was completed on
15	data collection and it turns out that about 135 to
16	140 offices in 12 different departments or agencies
17	check some type of maritime data. Just that alone
18	is really kind of interesting to see. And it's not
19	just for economic purposes. That doesn't include
20	projects or other aspects going on related to that,
21	but just pure inventory, who is collecting data.

1	131 Now it's the goal of this group to
2	assess the gaps, where there's needs, but in the
3	long term. In the long term. We hope to decide
4	shortly over how the information could be provided
5	in a form that's both, doesn't disadvantage
6	security in any way, but anyone can go in and take
7	a look at it and see how you get it. The fact is
8	if you were going to, if you wanted to know how you
9	got data, if you weren't in this business and
10	wanted to know who collected water level data, you
11	may not know, and you might search around the
12	federal government, you might find it real easily,
13	but if you wanted to know who did charts on the
14	Illinois water system you might find it easily, you
15	might not. But there's all kinds of data that
16	economists use you might not think of every day and
17	it's a little more secure and little harder to
18	find. Our goal is to, through the CMTS websites,
19	to find portals. There's already 13, 14 maritime
20	related portals in the federal government believe
21	it or not. That will at least make it easy links

1 to other locations.

2	Now, we have to address whether that
3	makes a security risk because it's so easy to find
4	all the data. I think we can work through that
5	one, but in the short term we would like to make
6	maritime data more easily accessible to other
7	people. And the tougher issue down the line is
8	standardization on terminology, but we can talk
9	about that in a little bit.
10	The fourth one I inherited is maritime
11	recovery, this is really a post hurricane issue,
12	what is the state of the maritime domain and how do
13	you know the status of the maritime domain. The
14	department of Transportation Secretary's office was
15	very frustrated, they couldn't get a clearance on
16	the status of the maritime domain. I think this
17	task will be recommended by the Coast Guard to take
18	because the Coast Guard is very engaged on the
19	maritime time recovery.
20	Now, this is one I want to talk about
21	with you guys, that's the navigation technology

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1	integration and coordination integrated actions
2	team. And it's led by NOAA. I love this concept
3	and this idea and I was very pleased that NOAA
4	proposed to lead a team to talk about navigation
5	technology. It was approved at the coordinating
6	board's meeting in October. It is David McFarland,
7	who many of you know was engaged with HSRP, Head of
8	Coast Survey and now works with Mike Szabados under
9	CO-OPS, he is the lead for this. And we're really
10	pleased because he obviously has the background,
11	the capabilities and he is, brings a very positive
12	weightiness. I think that's always difficult,
13	because cooperation and integration sounds really
14	nice but it's not always easy to do. So let me see
15	what this next one is.
16	Okay. I'll do this and want to get back
17	to that. I want to let you know that we have a
18	number of tasks out there that are not big tasks.
19	We have some short-term turnaround times to deal
20	with, how to deal with infrastructure, try to set
21	policies up. We have a CMTS meeting proposed for

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May, a full committee meeting the Secretary of
Transportation will be chairing, that it's our goal
today. They don't really want talking heads. You
don't get all of the secretaries at the White House
and have them listen to someone talk for an hour.
They are just not interested. So we've got a
number of things that are really important we're
trying to pull through. MTS, they address some of
the innate issues of trying to run a committee on
the Marine Transportation System without authority,
just operating efficiency issues. And I really
hope that you invite me back another time because I
really would be able to tell you how this went
forward.
We have interagency teams meeting this
week frankly to work on those, so I can't tell you
how they're going to turn out. I just want you to
know that I want to emphasize that the coordinating
board on every level understands the importance of
doing this and doing it now. I think a lot of the
stars are aligning in a lot of areas. The

	135
1	administrator, the new administrator, McNaughton,
2	has been right out front seeing to address of lot
3	of these. The administrator has as you know,
4	Admiral Lautenbacher, who is our chair, has been
5	straight up front about saying as long as I'm chair
6	in 2007 we really want to make a difference this
7	year. What can we do now to make a difference in
8	one year, what policies can the committee change
9	which lead us on the path of trying to make a
10	difference. This is our contact info. I would
11	like to talk more about our interagency team on
12	navigation technology. We just met yesterday for
13	the first time. And it's interesting because
14	actually I go into this not understanding what
15	everybody does today, but listening to these guys
16	talk about their outreach, we talked about a
17	working group that NOAA has with the Corps of
18	Engineers to really talk about meaningful ways to
19	make sure they are aligned on the next guy, there's
20	a comparable one between the Coast Guard and the
21	Corps of Engineers. Something I don't think I

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1	didn't think about this because I think of it as
2	deep draft, those in-house may not agree, but what
3	kind of navigation technology you might have on the
4	bridge. But I didn't know that the tug operators
5	on the waterway system don't have any of that.
6	Can't understand why they should put any kind of
7	charting in your pilothouse, and the Corps of
8	Engineers, who generally plans and monitors it, is
9	the one trying to deal with that issue. They came
10	into the picture saying let's design a system that
11	does this and does that, and at some point, I can't
12	say how it happened, the Coast Guard said you may
13	want to look at what's done already. Now, the good
14	news is they say I come look at AIS, I think I know
15	what AIS is telling us. They're doing current
16	modeling, the Corps of Engineers. Coast Guard does
17	current modeling. The need for current modeling,
18	you're talking locks and dams, and they have a lot
19	of barges and tugs running into barges, into locks
20	and dams and they don't like that. It costs a lot
21	of money. This equipment that's already under

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1	siege for lack of financial investment, and you can
2	only put so much wire and tape onto your locks and
3	dams, the Corps of Engineers, and as I said, you
4	know, we've got to stop having tugs and barges
5	running into locks and dams, period, if we can all
6	be on the same page right up front. Technology
7	develops, technology that all fits together, why
8	not do that?
9	So this team sent down yesterday with
10	David McFarland, and the Coast Guard was there, and
11	a lot of people, a lot of new faces in the room,
12	that's a success. And they started talking about
13	how do you scope this, what are our interests, talk
14	about the marine navigation safety and how do you
15	scope these so you don't go crazy, but it was clear
16	taking the inventory that exists that the
17	integration action team did and adding what other
18	initiatives are going on, what other working groups
19	are doing, there are forums, because there, I
20	believe there's an AIS standardization committee
21	that the Coast Guard runs and they're going to get

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1	that back going. Talk about all the different
2	people that meet for all different reasons, I
3	didn't even know there was a GPS committee. Kind
4	of like the CMTS but all that's about is they
5	define policy for GPS for this country. I didn't
6	know that, but they showed up yesterday, one of the
7	reps came and said we don't have a lot of marine
8	components in what we're talking about. Let's
9	connect those dots.
10	I am thrilled, I personally think the
11	navigation technology team efforts could be one of
12	the most important things with development, and
13	Bill Gray, the whole thing that Bill started was
14	about we need a safer system. Does every agency
15	need their own buoys, does every agency need to do
16	their own thing, do we need rules for them, rules
17	for them? I mean that's the vision. And what I
18	said to everybody yesterday, you have to think
19	about a vision, what is your vision for the safest
20	transportation system in the country. And don't
21	get worried about this is my job and that's your

139 1 There's so much to do. This isn't about job. 2 trying to take work from anybody and give it to 3 somebody else or talk about undercutting people's 4 budget line items. This is about talking to one 5 another. The good news, I found people. We just 6 need to think even bigger. And at that level the 7 experts are extraordinary and really do want to 8 make a difference, so I'm very excited about that 9 one and really hoping I can come back and talk 10 about that some more.

11 Now lastly, and David said how can we 12 hear from you, one of the things that we did in the 13 beginning was the coordinating board approved some 14 type of outreach to federal advisory committees. 15 And in fact, we did an inventory in-house that 16 there is a thousand federal advisory committees, 17 you can go online to see them. I had a wonderful 18 18-year-old summer intern as our secretary and she 19 sat, with her headphones on by the way, and went through every single -- I gave her ideas on how 20 would you know it matters. You can't say boat or 21

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1	ship or maritime, it might be related to trade,
2	might be related to environment, the oceans. She
3	came in with 70 different, about a hundred actually
4	federal advisory committees she thought could have
5	impact on the MTS. We thought there was about 70
6	that are direct or indirect. Granted, the
7	International Trade Administration makes policies
8	that could impact the Maritime Transportation
9	System they have. And so those are more indirect,
10	but you cull that further and there's about 20 that
11	probably we would like to know more about. I mean
12	here is when you talk about stakeholder outreach,
13	but you guys were all selected for your expertise
14	to talk about something in particular, why not take
15	advantage of it. So the coordinating board, which
16	was at the time led by General Riley, Corps of
17	Engineers, wrote letters to the sponsors of every
18	factor we thought was important, about 20, and NOAA
19	had three or four. And the goal of that was to
20	introduce the CMTS to the committees to say if
21	there's an opportunity that we could explain what

1 the CMTS is, we would like to do that. But try to 2 go to those committees and say what is your vision 3 for what you do.

4 Do you know that there is, under Coast 5 Guard there is a committee called the Navigation 6 Safety National Advisory Committee, NSNAC? Do you 7 know they talk about electronic charting? You guys talked about electronic charting I think, right? 8 9 And do you ever wonder what they're talking about? 10 A lot of times they're talking about a specific 11 issue and a specific part, but I spoke to them 12 briefly, you guys got to start thinking big, what's 13 your vision for the safest system in the country. 14 There are some restrictions and you need to be 15 clear, you need to work with the specialist in the 16 agency, but to the extent that you have an interest 17 and NOAA can work with you to facilitate it, we 18 might want to reach out. And to the extent that 19 under the tenets that you have of advising Admiral Lautenbacher, the administrator of NOAA, on issues, 20 21 they could coordinate, and I can't presume what's

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1	appropriate or not appropriate, to the extent NOAA
2	recognizes that maybe some of those issues are
3	interagency. I'm just saying don't limit yourself,
4	but I guess just to say to you guys I think from
5	what I can tell you guys, my personal feeling is
6	HSRP has thought big from the beginning. So I hope
7	that this didn't come off like another person comes
8	in with the federal government, I'm here to help
9	you. I always felt frustrated in the audience.
10	What's the new thing here is the MTS and it's
11	wonderful. It's all about what does it mean to you
12	and can I follow up and, you know, there a lot of
13	dynamics, I won't kid you, of trying to pull lots
14	of different agencies with lots of different
15	personalities together. I think the stars are
16	aligning and we are making hay right now. We've
17	got, you know, really 18 months until the end of
18	administration and at least I can tell you not just
19	the career people that participate in this, but the
20	appointed people have been so enthusiastic and so
21	supportive, I want to take advantage of that right

1 now and we are working awfully hard.

2	We are not going to answer every single
3	issue but we're going to try to target a couple we
4	hope that will give us the momentum to be here for
5	the long run and try to make a difference, because
6	it's nice to have one job all day long and make
7	sure people talk to one another, make sure people
8	who know educate and inform. And it's a big job.
9	I can only say that we are there's just a lot of
10	support, and so I hope you guys will keep thinking
11	big and I hope we can keep working with you and I
12	will be happy to take any questions or we can talk
13	later.
14	MR. DUNNIGAN: As you said, the admiral
15	is the chair of the coordinating board this year.
16	I'm his backup, looks like I'm going to spend a lot
17	of time riding the bench because he has grabbed
18	this responsibility and is very interested and
19	enthusiastic about this level of collaboration that
20	needs to occur among the federal agencies. NOAA
21	has a piece of this action but the fact we don't

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1	control the whole thing doesn't mean we can't take
2	the big view. That's really the orientation that
3	NOAA is bringing to its leadership of the CMTS and
4	encouraging the other federal agencies to do the
5	same thing. I think a comment we continually ask
6	ourselves is whether this business model is going
7	to work. As Helen said, the last one didn't. A
8	lot of us lived through that and we need to know
9	that the White House continues to focus on this
10	part of the Ocean Action Plan. And the question is
11	do we need to integrate this in a different way
12	beyond the committee that oversees the whole thing.
13	So we're going to keep working on that.
14	It's been great having Helen. We know
15	the enthusiasm she brings to everything she does
16	and she did that with the CMTS and the coordinating
17	board. We've learned better ways of talking to our
18	colleagues in the other federal agencies, and Dave,
19	you mentioned the collaboration that the NOS has
20	been working on with the Army Corps of Engineers to
21	try to identify six major areas where we have

1	145 programs that can be coordinated in common and each
2	
2	of those to be able perform missions better and the
3	coordinating board is also thinking of broad issues
4	like maintenance trust funds industry is paying to
5	support, that if we actually get the returns back
6	to the industry for the amount of funding being
7	made available, what can we as federal agencies do
8	to try to provide more value to the system from
9	that resource. Also talking about just basic
10	authority, CMTS is established now by executive
11	order, what more do we need to do beyond that.
12	Everybody in Washington now is becoming ever more
13	aware of the significance to the orientation of all
14	of the current members and the coordinating board
15	to make sure we're laying a foundation and
16	groundwork that alludes to the critical
17	significance of these issues to be recognized as
18	agencies of the government and move forward. The
19	proof of this is going to be what happens over the
20	next year and a half. I hope the committee will
21	keep our feet to the fire and ask questions about

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1	what's going on and making sure that information is
2	coming to light. So thank you, Helen, very much.
3	We might have some time to have some discussion.
4	Any questions?
5	MS. BROHL: I thought you guys would ask
6	the tough ones. Talking about feet to the fire, I
7	thought for sure you would. Well, I'm going to get
8	here, so.
9	CHAIRMAN RAINEY: I'm going to try to
10	join you up there. Maybe I'll throw a question
11	down. I assume then that from your vantage point
12	that the proper way to suggest issues that the
13	coordinating board would look at would be from us
14	through NOAA and then you've got the special
15	opportunity with Vice Admiral Lautenbacher chairing
16	the coordinating committee, to go through regular
17	channels here and NOAA can decide whether they want
18	to bring forward those issues.
19	MS. BROHL: It has to be brought through
20	your coordinating board member, as compared to the
21	full CMTS. The big advantage you have of course is

1	147 that Admiral Lautenbacher is super engaged.
2	Happens to be the chairman right now and would
3	probably ensure that it was put on the agenda. We
4	had, the MTSNAC has made a couple of
5	recommendations to the CMTS. Some were very
6	outdated by the time I arrived and really didn't
7	need a response, but they did. I don't know if you
8	know this, but they made a recommendation to the
9	Secretary of Transportation supporting NOAA's
10	navigation service programs asking for more money,
11	and that, I guess it went to the secretary's office
12	and what they did was pass it to MARAD, who passed
13	it to us. But by the time, frankly, it got to us
14	it was past the OA budget site. However, in
15	response to that we responded back to MTSNAC
16	basically saying we have the navigation technology
17	actions item and really want to integrate that. So
18	those are important programs, but there's a lot of
19	important programs and I think we need to make sure
20	we're all on the same page, that we're pursuing
21	that vision. So there is a mechanism. We have

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1	received one from a federal advisory committee and
2	responded and I assume they will see that response
3	at their meeting in May in Chicago.
4	MR. SKINNER: Thanks, Helen. Sounds
5	like you've got a lot of lot on your plate. One of
6	the questions I had was you mentioned a briefing
7	with our congressionals. Is the effort that you're
8	doing to integrate a lot of what the different
9	agencies are doing, does that translate into a
10	better understanding at the congressional level of
11	sort of the bigger picture? Now in even just
12	sorting through what you're going through, there
13	are many, many different components and you're
14	finding out new stuff about it. Is it too soon or
15	do you think there's some payoffs down the road for
16	really sort of being able to present something to
17	Congress where people will say I get it?
18	MS. BROHL: Well, there are three ways
19	to answer that. One is the national strategy we
20	hope would be approved by the secretaries and the
21	White House and then that will be for

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1	149 dissemination. And those are not just a broad
2	strategic plan but are clearly defined action
3	items. Those action items lead to specific tasks
4	which lead to, which could lead to things that
5	would be of interest to Congress. There's that
6	component, so there maybe things we're working on
7	that could lead their way to Congress. Secondly,
8	the it really jumped right out of my head, I'm
9	sorry. I must have nothing in there or too much in
10	there. I'm sorry, I'm just like tripping over
11	myself here. It will come to me.
12	MR. SKINNER: There will be some
13	incidental benefits just in terms of explaining to
14	congressional staff what linkages they're making
15	between the agencies and then, oh, I didn't know
16	those two agencies worked in that way or something
17	like that.
18	MS. BROHL: Thank you for talking
19	because now I remember.
20	MR. SKINNER: That's my role.
21	MS. BROHL: Thank you. Sometimes as

1	150 we how to express this right? If the national
2	strategy comes with a long plan, that's one way to
3	look at it, and then I guess there are two. One
4	is the national strategy, which is the broad big
5	picture; secondly individual tasks. Jack alluded
6	to the fact that we're looking at some
7	infrastructure issues related to the maintenance
8	trust fund. It's under review right now. If that
9	makes its way to the committee and to the White
10	House, perhaps that will make its way in some form
11	that has not been decided, whether that will be
12	looking for some changes to authorization regarding
13	that or recommendations in the budget, I can't even
14	tell you how that would play at all. We're
15	literally in the middle of it and it's on the table
16	there but I can't tell you where that will go.
17	That could happen. They would see a specific
18	issue.
19	If what was the third one? You must
20	be making me nervous. I'm sorry, guys.
21	MR. SKINNER: Thank you.

1	151 MR. VICKERMAN: I just wanted to tell
2	you I'm excited about what you're doing, having
3	lived through the Warrington creation and trying to
4	contribute to it, I think it's great. Let me
5	just I realize I'm just a guest here. I will be
6	very succinct. I'm seeing Canada do some
7	absolutely amazing things bringing Canadian
8	national policy together. The former prime
9	minister, Mr. Martin, created a \$600 million
10	Pacific Gateway strategy for Vancouver. I'm
11	involved in a business plan analysis for the
12	Eastern Gateway for Nova Scotia and Halifax and a
13	port north of that. Canada seems to be able to
14	link gateway strategies together in a much more
15	coherent way. Perhaps I'm being too critical.
16	They even have Saskatchewan now wants to stop CN
17	trains westbound with empty containers and put high
18	value ag product and create the first
19	transcontinental land bridge seamlessly connected
20	to gateways. It seems to me that we can and need a
21	much more holistic gateway unification east to west

1 which involves different unions, different 2 technologies, integration of modes. You related to 3 that. I guess just an observation, I would like to 4 see more of that kind of gateway linkages come 5 together. Do you see that kind of thing evolving 6 from what you're doing?

7 MS. BROHL: It's not currently on our 8 plates in that holistic manner, because we decided 9 to go up front on some hot issues to have some 10 short-term successes because we have a very short 11 time to prove some success to provide a foundation 12 for the future which Jack alluded to. And I 13 hesitate to speak for the Secretary of 14 Transportation, but I do know and many of you may 15 know that also in the Ocean Action Plan there was a 16 recommendation by the president to create a freight 17 framework, which was supposed to look at the bigger 18 picture, and it's now called the freight action 19 framework or whatever. I think you can get this online at the DOT website. That is a plan that 20 21 addresses a number of different issues of concern,

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1	but the way they're looking at gateways is more
2	relative to the term congestion, where is the
3	congestion regionally and how do we fix this. And
4	they have a number of ways in which you go about it
5	and a number of the points they make frankly we're
6	addressing and I actually did a matrix for them on
7	the tenth floor at the DOT secretary's office. I'm
8	starting to become one of those people who says S1,
9	that means the Secretary of Transportation. It's
10	really corny. But I made a matrix that had a list
11	of all the freight action framework stuff and where
12	MTS is addressing it and how does it address some
13	of those issues.
14	I cannot tell you whether the corridor,
15	the corridor issue is being looked at more
16	holistically except to say I know they've tasked
17	certain agencies at the Department of
18	Transportation, since you're truly getting into
19	intermodal, you've got to go to other modes other
20	than just maritime components, to address it. We
21	can talk about it a little bit off line and I

1	154 really would recommend you to Tina Cathcar, who you
2	probably know, at DOT to talk about that, but one
3	thing I think is clear, DOT is not forcing the
4	market, you can't tell people to market. In
5	Canada, having worked in the Great Lakes, they can
6	tell people they bring stuff out on the seaway
7	instead of the west coast because those folks
8	dealing with international trade in the Great Lakes
9	say well, wait a minute, you're not saying you're
10	going to the west coast when in fact it used to
11	come through Thunder Bay, so what's going on?
12	That's a very different way of looking at things
13	and my experience through the federal process here
14	in listening to industry talk, whether it's about
15	where do you move if you have an incident in one
16	port, something that shuts down one port area, a
17	longshoremen's strike at Long Beach, where is
18	everybody going to go, and the Coast Guard says we
19	want to know where everybody will go and we're
20	going to tell you, and industry says whoa, whoa,
21	whoa, don't get into my logistics contingency

1	ISS planning, that's none of your business, we're going
2	to go where we need to go. Now, the feds say well,
3	we don't need to shut another port down because
4	everybody heads to Seattle or something like that.
5	I appreciate those logistic concerns they have, but
6	industry has said don't tell us where to go, the
7	marketplace will tell us where to go.
8	I appreciate the big picture and Europe

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has a plan for their transportation sector and when 9 10 you talk about short sea shipping, not just because there's harbor maintenance trust fund and stuff and 11 12 the country may or may not work, look at the Rhine 13 and the container system on the Rhine. Well, there 14 has been concerted planning efforts and investment 15 in areas to make that happen. And I do respect that and your point's well taken, but I can only 16 17 respond -- that doesn't mean it's --18 I just think it's a MR. VICKERMAN:

19 platform for you. I sit on that freight advisory 20 round table and in fact we created the freight 21 analysis framework that Tina and Larrabee and the

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1	13 of us on the round table are doing. But I see
2	that as the private sector's framing of the freight
3	analysis policy issues. I see that as a platform
4	for you I guess from a private sector, one that
5	would allow you to take a much broader systemic
6	view in that. I think there's a real opportunity
7	there. It was published, you can go to the
8	Secretary of Transportation website and get the
9	freight analysis framework policy agenda and even
10	the new secretary has said that she wants to
11	continue that process. I just wanted to plant the
12	seed that I think that's a springboard for you.
13	MS. BROHL: Well, let me reassure
14	everybody here, including you, John, that we're
15	trying our best to make sure that we're not doing
16	anything in a vacuum. And I try to get with the
17	policy people at DOT who are looking at the
18	intermodal, the bigger picture on transportation
19	sectors and those points of congestion to say well,
20	are we in the ballpark here. We don't want to
21	reinvent. I just really felt pleased when we did a

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1	matrix for the policy shop, which they didn't ask
2	for, I thought they ought to see that some of the
3	things we're working on fits very nicely into
4	addressing some of those concerns. Because Tina
5	said well, we have this really great plan, how does
6	it go forward, and I said don't be discouraged,
7	we're dealing with some of these things and that
8	should be looked at as success.
9	Dave McFarland did a really great thing
10	when he set up the navigation technology meeting.
11	He called the Coast Guard and said read me the
12	parts that you have in the national strategy that
13	have to do with navigation technology and
14	navigation safety, for two reasons. One, we want
15	to make sure it feels comfortable with how we're
16	proceeding, and two, if it's really great we want
17	to make sure we're aligned. So we're trying to
18	cover a lot of different bases. There's just so
19	many bases to cover, but, you know, I don't was
20	it a quick round table, do you guys
21	MR. VICKERMAN: It was extended for a

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1	year, it has a three-year commission. It is a
2	target rich environment for you that I think that
3	will help in what you're doing.
4	MS. BROHL: Well, thanks. I'd rather in
5	a couple years have people say bravo, because right
6	now it just takes a lot of energy. But you
7	couldn't do it without the support of the agencies
8	and you guys know it's awesome, corny term, but
9	there's a lot of support. I'd be happy to speak
10	some more about it. Well, at some point I'll
11	remember the follow-up to John.
12	CHAIRMAN RAINEY: Thanks very much. I
13	can tell you I know that we've envisioned an
14	opportunity here. We'll keep trying to look at the
15	bigger picture and do our part in a way to help
16	NOAA in their leadership role. So thanks again for
17	coming. Welcome back and thank you very much.
18	At the time I came up here we're having
19	a little technical difficulty with our satellite
20	down on Wallops Island and the tracking device we
21	have on Vice Admiral Lautenbacher. What we're

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1	159 going to plan now is our next session. He will be
2	joining us as soon as he's able, as we've known
3	from the outset. He's over at a convention this
5	from the outset. He sover at a convention this
4	morning at the appropriations hearing, so we'd like
5	to go ahead and break. We have a working lunch,
6	which was our plan. It's now set up for us, and
7	what I'd like to do is ask members to go ahead, if
8	they need to come up to periscope depth to get a
9	cell phone call or something, if they could return
10	to the room momentarily. Take a break, but let's
11	go ahead and sir.
12	MR. DUNNIGAN: It's always good to have
13	congressional staff come listen to us, and John
14	Rayfield and Bonnie Bruce were here this morning
15	and had to leave. I want to make sure everybody is
16	aware that Jim Sartuche is in the room. Jim works
17	for Senator Lott. So take the opportunity to say
18	hello to him too. We appreciate his coming and
19	being with us.
20	CHAIRMAN RAINEY: What I'm asking for is
21	if you have to leave just momentarily, come on

160 back. As soon as the Vice Admiral gets here we'll roll into our presentation on our special report and then we'll have some remarks and I'll go through the highlights and Don will help and we'll go around the room for folks to, for members to address that a little bit briefly. (Luncheon recess.) CHAIRMAN RAINEY: We'll go ahead and resume our session here. It's my distinct pleasure to introduce our next speaker, Vice Admiral Conrad Lautenbacher. Admiral Lautenbacher is serving as the Undersecretary of Commerce for Oceans and Atmosphere and he has the added distinction of serving as the eighth administrator of the National Oceanic and Atmospheric Administration. Admiral Lautenbacher holds an M.S. and Ph.D. from Harvard University in applied mathematics. Admiral Lautenbacher oversees the day-to-day functions of NOAA as well as laying out a strategic and operational future. He's directed an extensive review and reorganization of the NOAA corporate		
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18 Lautenbacher oversees the day-to-day functions of 19 NOAA as well as laying out a strategic and 20 operational future. He's directed an extensive	16	Lautenbacher holds an M.S. and Ph.D. from Harvard
19 NOAA as well as laying out a strategic and 20 operational future. He's directed an extensive	17	University in applied mathematics. Admiral
20 operational future. He's directed an extensive	18	Lautenbacher oversees the day-to-day functions of
	19	NOAA as well as laying out a strategic and
21 review and reorganization of the NOAA corporate	20	operational future. He's directed an extensive
	21	review and reorganization of the NOAA corporate

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1	structure to meet the environmental challenges of
2	the 21st century. As the NOAA administrator,
3	Admiral Lautenbacher spearheaded the first ever
4	Earth Observation Summit, which hosted
5	ministerial-level representation from several dozen
6	of the world's nations in Washington, July 2003.
7	Through subsequent international summits and
8	working groups, he worked to encourage world
9	scientific and policy leaders to work toward a
10	common goal of building a sustained Global Earth
11	Observation System that would collect and
12	disseminate data, information and models to
13	stakeholders and decision-makers for the benefit of
14	all nations individually and the world community
15	collectively.
16	Admiral Lautenbacher joined us at our
17	second meeting up in New York and I've had the
18	pleasure of briefing him on our activities the
19	three years that we've been ongoing and I'm very
20	pleased that he's able to join us today to
21	personally receive our special report on our most

	162
1	162 wanted hydrographic service improvement. So I'd
2	like to go ahead and turn the floor over to NOAA
3	administrator Vice Admiral Lautenbacher.
4	VADM LAUTENBACHER: Thanks very much,
5	Scott. First of all let me apologize for being
6	late. I was at a hearing this morning of the House
7	Appropriations Subcommittee on our budget. I'm
8	still having trouble with my throat, I have a cold.
9	So I don't want to take too much time
10	because I really want to hear the report and hear
11	from you in the time I have with you. And I'm
12	pleased that General Kelly was over here.
13	Hopefully he got you warmed up a little bit.
14	There's just a few things that I want to
15	mention that I thought are important. This is the
16	20th anniversary of the establishment of the Survey
17	of the Coast, and that's the reason we're all here
18	together today, because we still do these things
19	and they're still very important, and I want to
20	make sure that you know that this was part of my
21	testimony, both my written statement and my oral

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1 statement talking about the importance of getting
2 commerce safely in and out of our country and the
3 need to have the kind of services that are provided
4 here to do that. I mentioned that several times,
5 so I was at least doing something useful while I
6 wasn't here listening to you.

7 But I encourage you to think about this 8 200th anniversary. We are using it kind of as a 9 platform to talk about the importance of ocean 10 activities, the kinds of things that NOAA does, the science, the service, and in particular the 11 12 foundation that we have for commerce in the country 13 from Thomas Jefferson until today, this is the 14 founding part of NOAA. So it's vitally important 15 to use that as we look for ways to improve the 16 funding and support for this. I want to thank John 17 Vickerman this morning, I understand he told a very 18 compelling story and I appreciate the fact that we need to worry about the whole marine transportation 19 20 system. I also appreciate Dr. Kite-Powell's studies on the economic benefits of using PORTS. 21

PORTS is real important to me, we would love to
have more funding for PORTS and keep working on it
and talk about the value of Tampa Bay and Houston.
Studies like this that can help us provide the
economic benefits in some very tangible way are
really important and I appreciate your support of
that kind of activity.

8 This is a very important federal 9 advisory committee for NOAA, we appreciate your 10 service. This is extra. I realize you all have 11 day jobs and there's other things you need to do to 12 keep yourselves moving, but the panel contributes 13 We need that connection with the customers to us. 14 and the people who value and benefit from the kinds 15 of things NOAA does and vice versa. So we rely on 16 your collective expertise and knowledge and we 17 thank you for the service.

Particularly some of the things I think
we want to mention is working with us to identify
survey priorities. That's very important. Looking
at developing improved contracting policies, we

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1	165 want to try to keep everybody happy and make sure
2	we're doing it efficiently and satisfy the federal
3	regulations and congressional interests. We
4	appreciate the work being done to contribute to our
5	IOOS, Integrated Ocean Observing System,
6	development plan and find a role for the NOAA
7	hydrographic services in IOOS as a basis for the
8	whole system.
9	We also appreciate the consultation on
10	drafting of the Hydrographic Services Improvement
11	Act Reauthorization, which is one of the
12	administrations priorities for this year, and
13	without this group and the push that we've got it
14	wouldn't be in the position it is, so we appreciate
15	that. And your concerned recommendations for
16	emergency response capabilities during the 2005
17	hurricane season was very important to us.
18	So we look forward to the
19	recommendations from you on several issues such as
20	our fleet recapitalization plan, our geodetic
21	survey ten-year plan, and I also note that I carry

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1	your advice and policy recommendations forward to
2	the Interagency Committee on Marine Transportation,
3	CMTS. I see Helen is down here to make sure I give
4	an advertisement for that. Thank you.
5	This is important because we have, NOAA
6	has chair of the coordinating board this year and
7	that gives us an opportunity to talk about why we
8	are important to CMTS and me a platform to talk
9	about the whole thing, which I've always been
10	interested in throughout my whole career. I think
11	as we sit there at that round table, the
12	administration is interested in looking at the
13	marine transportation system and I want to make
14	sure that NOAA is a player at the table. So that's
15	important to us.
16	This is perfect timing given all the
17	things that are going on for your special report
18	and the list of hydrographic services improvements.
19	I want to assure you that as the chair of the
20	coordinating committee I will make sure that this
21	gets the attention of the whole committee and is

1	167 brought forward to the maritime CMTS itself.
2	Navigation services are important to
3	NOAA. They are the core mission of the agency.
4	Without the navigation services that we have we
5	would not be able to do much of the research and
6	forecasting that becomes a regulatory management
7	that becomes the essence of many of our customer
8	needs. So we have a budget for navigation services
9	of 144 million, which is 4 million above the 2007
10	request. That's good because any kind of increase
11	in the climate we're in today is very, very hard to
12	get. So the fact that we can grow it, I realize
13	not much, but growing is better than declining,
14	which is what they asked me to do when we put our
15	budget together. So we need to look at growth as
16	being important to us and I appreciate your support
17	of our budget.
18	We have a couple of things that are
19	I've already mentioned the 200th anniversary.
20	We're going to have a few events that I think will
21	be interesting and which will feature some of the

	168
1	navigation service programs as we talk about the
2	200th anniversary. There will be a wreath laying
3	at the Jefferson Memorial April 13th and Secretary
4	Gutierrez is supposed to be part of that. We have
5	him as the keynote speaker for the International
6	Association of Ports and Harbors at the annual
7	meeting in Houston on May 1st and he will be
8	discussing free trade agreements, he's obviously a
9	huge fan of free trade and I understand it's a role
10	maritime marine services play, and also our
11	Hydrographic Services Improvement Act. I mentioned
12	we pushed that as a priority for NOAA and for
13	Commerce, we have interest from the secretary, we
14	hope it's going to be cleared very shortly and will
15	be transmitted to the hill this spring in another
16	month, and we hope for consideration by Congress.
17	Those are the things I wanted to make
18	sure I hit that are on my notes. But again, I
19	don't want to take away from the time for you to
20	talk to me and see where we're going with this
21	report, but again, I appreciate your service. It's

1	169 important to us. The foundation navigation service
2	and what we do to bring ships in and out of the
3	ports is a fundamental requirement of our country
4	and our economy and you help us do that. So thank
5	you very much, I appreciate it and I'll turn it
6	back to Scott.
7	CHAIRMAN RAINEY: Pardon my walk here.
8	(Pause in the proceedings.)
9	MR. SKINNER: Our intent was for Scott
10	to go through the highlights of the report and then
11	spend a little bit of time with each member adding
12	a little bit of meat to the bones so to speak
13	afterwards. It probably shouldn't take more than
14	20 minutes.
15	CHAIRMAN RAINEY: Thank you, Admiral,
16	for your introductory comments.
17	It's my privilege to present to you the
18	HSRP special report. This briefing highlights the
19	panel's primary recommendations regarding the
20	near-term priorities and direction for NOAA's
21	hydrographic services. We have named these five

1	170 priorities, the HSRP Most Wanted Hydrographic
2	
2	Services Improvement List.
3	NOAA is unable to meet the nation's need
4	for updated marine navigation information,
5	primarily because NOAA resources to deliver
6	navigation services have not kept pace with MTS
7	growth. There is a critical national need for NOAA
8	hydrographic service. The Department of
9	Transportation's 1999 report to Congress, An
10	Assessment of the U.S. Marine Transportation
11	System, noted the greatest safety concern voiced by
12	MTS stakeholders related to the availability of
13	timely, accurate and reliable navigation
14	information.
15	U.S. coastal waters have never been
16	completely surveyed. For those areas that have
17	been surveyed, nearly 50 percent of the depths
18	shown on NOAA charts are pre-1940 data, collected
19	by leadline soundings and wire drags. Ironically,
20	in stark contrast to the increasing critical need,
21	NOAA's in-house hydrographic services capacity

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1	decreased 64 percent in the 1990s, from a
2	high-water mark of 11 NOAA hydrographic ships to
3	today's complement of four ships, three of which
4	are approaching 40 years of age.
5	NOAA is currently accomplishing about
6	3,000 square nautical miles of surveying per year
7	using in-house vessels and contract support. This
8	equates to less than 1 percent of the
9	navigationally significant area within NOAA's
10	responsibility. At this rate it will take NOAA and
11	its contractors 166 years to survey just this high
12	priority subarea of its overall responsibility.
13	Similarly, NOAA is currently only able to map 3
14	percent of the highest priority port-area
15	shoreline. Some you U.S. shoreline, primarily in
16	Alaska has never been mapped to official modern
17	standards.
18	The HSRP recommends that NOAA
19	aggressively survey and map the 500,000 square
20	nautical miles of navigationally significant areas
21	and 95,000 miles of shoreline by expanding NOAA's

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1	in-house and contract survey capabilities to
2	acquire and process more hydrographic and shoreline
3	mapping data. The HSRP strongly supports NOAA's
4	program goal to increase capacity to survey 10,000
5	square nautical miles annually. This increase in
6	capacity will enable NOAA to resurvey
7	navigationally significant areas on a 50-year
8	cycle.
9	NOAA's future success in nautical
10	charting depends on its ability to both collect and
11	rapidly process more data. NOAA must expand its
12	data flow pipeline to get information charted and
13	disseminated in a timely manner. The HSRP supports
14	NOAA's efforts to increase partnerships with
15	academia and the private sector on technology
16	research and development to achieve its goals.
17	NOAA is the United States' hydrographic
18	office. Surveying, mapping and charting are
19	fundamental core missions of NOAA. It is
20	imperative for NOAA to maintain its core capability
21	of hydrographic expertise. In the HSRP's view,

173 1 this core capability necessarily includes a fleet of modern hydrographic survey vessels. Within the 2 3 next 15 years three of the four NOAA hydrographic ships will reach the end of their useful service 4 5 lives without designated or funded replacements. 6 The HSRP recommends that NOAA conduct a fleet 7 recapitalization study to chart the course for a 8 sustainable solution to NOAA's hydrographic survey 9 fleet requirements. 10 At the same time, the HSRP sees a 11 continuing need to increase the level of 12 contracting for hydrographic services. The HSRP 13 has reviewed and supports NOAA's contracting policy. The HSRP commends NOAA's significant 14 15 increase in contracting, which since 1994 has risen 16 from zero to \$30 million per year, roughly half of NOAA's budget for hydrographic surveying. However, 17 18 because of the magnitude of the area and the urgent need for updated surveys, NOAA needs to expand its 19 capacity to expeditiously contract for hydrographic 20 21 services.

1	174 Numerous federal and state agencies
2	collect similar or related datasets to perform
3	their own mission-critical functions. The lack of
4	data integration, inconsistent standards and the
5	use of different vertical datums causes confusion
6	among users. Federal agencies must accelerate
7	efforts to integrate in order to conserve
8	resources, minimize data duplication and
9	inconsistency, and maximize taxpayer investments.
10	The HSRP recommends that NOAA take a
11	larger role in improving partnerships with other
12	federal and state agencies and other
13	nongovernmental entities to integrate coastal
14	mapping efforts with coordinated mapping plans and
15	tools such as VDatum. The HSRP urges NOAA to
16	increase its efforts with other agencies to
17	leverage federal resources to collect and integrate
18	data of a predetermined standard so that everyone,
19	federal, state, academia and private sector, can
20	use the same data seamlessly. A comprehensive
21	integrated ocean and coastal mapping standard

1	175 should be developed. A joint National Survey Plan
2	for shoreline mapping, akin to the NOAA
3	Hydrographic Surveys Priorities document, should be
4	developed and implemented.
5	The HSRP is gravely concerned that the
6	federal government is not using the most effective
7	technology to detect the presence of submerged
8	objects in federally maintained channels. The U.S.
9	Army Corps of Engineers, the federal agency
10	responsible for maintaining, dredging and surveying
11	inside the federally maintained channels,
12	approaches and anchorages, does not use the same
13	technology and standards as the NOAA surveys
14	outside the channel.
15	NOAA has utilized multibeam and
16	side-scan sonar technologies to conduct
17	hydrographic surveys to achieve full bottom
18	coverage for depths and objects since 1985. Using
19	these survey technologies, NOAA is finding new
20	hazardous obstructions at the rate of about one and
21	a half per day. Ironically, current practices

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1 provide less accurate detection of submerged 2 objects in those waterways where commercial deep 3 draft vessels are required to transit with the 4 least underkeel clearance.

5 Undetected submerged objects located in 6 our federally maintained waterways present a 7 significant and real hazard. In 2004 the tanker 8 ATHOS I spilled approximately 265,000 gallons of 9 oil when it struck three large submerged objects in the federally maintained channel and anchorage in 10 11 the Delaware River. We've got this picture, this 12 is an anchor that they found and I believe this was 13 a pipe or a pump housing, and there was also a 14 large block of concrete.

The HSRP strongly recommends NOAA be authorized and funded to survey all federally maintained channels on a routine basis, or both NOAA and the Corps of Engineers should use the best available technology and a single full bottom coverage standard for the survey data to detect submerged objects. The HSRP recommends that NOAA

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1	177 pursue this issue within the cabinet level
2	Committee on Marine Transportation System.
3	NOAA's navigation services are a
4	critical component of the federal effort to build
5	an integrated Ocean Observing System or IOOS. The
6	HSRP believes a comprehensive expansion of the
7	maritime components and the building on existing
8	capabilities to link users to useful and timely
9	data should be the top priority for IOOS and for
10	NOAA.
11	The HSRP recommends that NOAA expand and
12	fund realtime water level and current observations
13	such as NOAA's PORTS program nationwide.
14	The HSRP also supports NOAA's management
15	of the National Spatial Reference System and its
16	height modernization effort as a primary element of
17	the IOOS infrastructure.
18	NOAA's navigation services support
19	emergency response to incidents such as hurricanes
20	and oil spills and are important contributors to
21	Homeland Security and Maritime Domain Awareness.

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1	178 NOAA's role is crucial but under-resourced. Our
2	nation's economy and security depends on an
3	immediate and effective emergency response and
4	recovery from any significant marine transportation
5	incident, natural or manmade. Even a brief
6	disruption in a major port can cause a significant
7	economic loss. NOAA has unique capabilities within
8	the federal emergency response recovery
9	responsibilities. NOAA's navigation services
10	programs have important roles that need to be
11	recognized as essential support functions in the
12	National Response Plan.
13	NOAA's unique emergency response
14	capabilities need to be funded and staffed to meet
15	the nation's foreseeable and critical need for
16	these services. The HSRP recommends that NOAA's
17	complement of Navigation Response Teams, NRTs, be
18	increased from six to ten fully funded and staffed
19	teams staged regionally around the country. Half
20	of NOAA's rapid response hydrographic survey
21	capability was engaged in the response to

Hurricanes Katrina and Rita. This level of effort
 required the redeployment of NRTs from the West
 Coast and the Great Lakes.

Similarly, NOAA's capacity to respond to oil and chemical spills is stretched thin. Since 2004 the program's base budget has decreased by 18 percent. The HSRP believes it is critical to restore the budget for NOAA's emergency response programs.

10 The more timely and widespread NOAA's 11 navigation data delivery, the more benefit it can 12 provide to safe navigation and other uses. The 13 HSRP recommends that NOAA expand efforts to deliver 14 its navigation products and services more quickly. 15 NOAA has made tremendous strides in reducing the 16 time from "ping to chart" as the agency continues 17 to transition from paper to a digital nautical 18 database. However, there's need for continued 19 improvement. Currently NOAA obtains survey data 20 faster than it can process and map it.

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The HSRP is particularly concerned with

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1	the current status of NOAA's Electronic
2	Navigational Chart, ENC, production. Current
3	budget and resource constraints have frozen the ENC
4	product at the halfway mark. Congress has passed a
5	law requiring the U.S. Coast Guard to promulgate
6	mandatory carriage requirements for electronic
7	charting systems by 2007. It is anticipated that
8	these systems will use NOAA's ENCs. NOAA continues
9	to operate two separate and distinct nautical
10	charting productions lines, raster and ENC, and
11	these need to be integrated into a single
12	production process.
13	The HSRP recommends that NOAA increase
14	outreach to make navigation and nonnavigation users
15	more aware of the NOAA mapping and data resource
16	available to them. In addition to navigation,
17	these same data and services provide bases for
18	inundation modeling, marine habitat mapping,
19	coastal resource and emergency response management,
20	engineering projects, long-term sea level trends,
21	climate change and more. The HSRP encourages NOAA

181 to continue to continue to partner with academia 1 2 and the private sector for research and development 3 of new applications and formats to expand the public's benefit from NOAA's hydrographic data. 4 5 In summary, the HSRP's most wanted 6 hydrographic services improvements are for NOAA to: 7 Aggressively map the nation's shorelines 8 and navigationally significant waters; 9 To integrate coastal mapping efforts and ensure federally maintained channels, approaches 10 and anchorages are surveyed to the highest 11 standard; 12 13 Modernize heights and implement realtime water level and current observing systems at major 14 15 commercial ports; 16 Strengthen NOAA's navigational services 17 emergency response and recovery capabilities; 18 And to disseminate NOAA's hydrographic services data and products to achieve the greatest 19 20 benefit. That is the highlights of our report and 21

I'd like to yield back the floor to Tom Skinner.
 Thank you very much.

3	MR. SKINNER: Thanks, Scott. The final
4	recommendations represent a combination of both the
5	inputs from the 15 members of the HSRP, public
6	comments received, and a tremendous amount of work
7	done by the NOAA agencies and staff to provide us
8	relevant information. Right now we want to go
9	around with the HSRP members. If you could
10	identify yourself and your affiliation and why the
11	report and the recommendations are so important,
12	that would be great, and maybe we can start with
13	Captain McGovern.
14	CAPT. MCGOVERN: Thank you. Andrew
15	McGovern, Sandy Hook Pilots, Port of New York-New
16	Jersey. I would just like to commend everyone for
17	putting this report together and I support it
18	fully. I believe these are the most important
19	issues and my only wish is that NOAA take this and
20	run with it and use it as best you can and try to
21	get as much out of this report as possible. Thank

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1 you.

2	MR. SKINNER: Thanks. It's sad, I now
3	have to put on my glasses to see who's next.
4	Helen, you didn't tell me that your vision needs to
5	be improved when you become deputy chair here.
6	John.
7	MR. OSWALD: John Oswald from Anchorage.
8	I'd just like to say thanks for coming and paying
9	attention to this committee, something that has
10	been lacking maybe in the previous 15 years.
11	These are important services. The
12	report reflects quite a bit of vetting by this
13	committee. If you get a chance to look at it,
14	there's one graphic in here on page 8 of an island
15	that Lula Pine over here surveyed a few years ago
16	out in the Pacific that, the case in point, this
17	summer some of this shoreline is so out of position
18	in the United States. An Alaskan example, this
19	year, the prime contractor is here from Mississippi
20	doing this bathymetric lighter, the lighter that
21	penetrates the water, and we plot our lines in

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1	advance, they fly over the shoreline, look down,
2	it's nothing but water, the islands are out of
3	position. And it's not due to errors, it's due to
4	the technology from the 1974 astronomic position
5	much like this graphic here. It's not everyplace
6	but there's free products on the Internet that are
7	positioned correctly. So it's quite a big
8	technology jump as you see. I thought I'd throw
9	that out, and appreciate your being here.
10	MR. DUNNIGAN: Admiral.
11	RADM WEST: I'm sure Connie's heard
12	enough from me, I think they sent him a little note
13	last night about another issue, but much related to
14	this ocean observing. We've got a great
15	opportunity and thanks to Connie's leadership to
16	have NOAA step up to the plate and lead our set of
17	values. The important part of it's been
18	hydrographic services that's kind of actually been
19	under the radar if you want to look at it, but it's
20	an essential part of it. So that's good it's one
21	of our high recommendations. We had a Friends of

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1	NOAA lunch on the hill last week and I brought up
2	and I relayed when our panel met in Houston if you
3	all remember about a year ago, we heard how well
4	NOAA's team did in the recovery of that maritime
5	industry down there and the fact that there was a
6	report being presented. They recorded this and put
7	it out to the public, but I have to say I have not
8	seen it. So I guess my appeal to you, Connie, is
9	you got a lot of great things to say about NOAA,
10	but it's really not getting out past Congress to
11	the public to let them know how important you are.
12	I wanted to emphasize that. I know it's going to
13	be easy for all of us to support the missions.
14	DR. LAPINE: Admiral, thank you for
15	coming. I know you have a very busy schedule and
16	we really appreciate you being here. I'm Lewis
17	Lapine, I'm a former NOAA Corps officer, former
18	director of National Geodetic Survey, now I'm the
19	state surveyor for the state of South Carolina.
20	We've got a couple of big harbors in our area,
21	Savannah, Charleston, soon to have a new harbor

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1	located in the mouth of the Savannah River, so I
2	really appreciate being on this committee and being
3	able to help, but my real interest is geodesy.
4	When I think of hydrographic services I think of
5	charts and tides. But the National Spatial
6	Reference System is extremely important because
7	it's the foundation for all that we do. People
8	assume that these latitude and longitude lines
9	magically appear on charts, that GPS magically
10	gives them coordinates, but it's all based on CORS
11	and national height model. And as a result of
12	those two processes, South Carolina is soon to open
13	up a virtual reference station, a CORS network
14	that's much denser and will be able to do
15	centimeter level realtime positioning anywhere in
16	the state. And that gets us into machinery
17	control. Highway departments will construct roads
18	where the bulldozers are driven by dual GPS
19	antennas on the blade. Precision agriculture. I
20	envision ships operating under a machine controlled
21	environment. I believe we can control ships,

187 1 better control ships with similar technology and the National Geodetic Survey will help bring this 2 3 together, and a lot of the success in South 4 Carolina, I must add, is due to the grants of the 5 National Geodetic Survey has given our state in the 6 past ten years. We appreciate that. Thank you. 7 MR. SKINNER: Jon. 8 MR. DASLER: Thank you for joining us. I'm Jon Dasler, director of marine services at Dave 9 10 Evans and Associates. I wanted to draw attention 11 to page 13 in the report, and Scott touched on this 12 a little bit, on what we can't see does hurt us and 13 the issue of a lot of the obstructions that are in 14 the federal channels. In Table 1 it even 15 highlights 800 dangers to navigation in the 2006 16 field team that were detected by NOAA in-house 17 surveys and private contractors. And just that, as 18 Scott pointed out, this expertise is not being 19 fully extended to monitor federal channels at this 20 time. Obstructions are appearing in federal 21 channels at a larger rate than methods being used

188 1 to detect them, either wrecks or storm debris or activities from construction. Up on the screen is 2 3 a case where there's a -- Burlington Northern bridge removed a swing stand bridge and you can see 4 5 the remnants of where that swing span used to be, 6 removed the center turntable and put in a lift 7 span, and a couple of large block foundations from 8 the, shown in the hill shade image there, remained 9 and were missed by Corps channels surveys. The 10 condition surveys were single-beam surveys, the 11 light line is the channel center line, one line was 12 run halfway to the channel edge and then along the 13 edge on either side, so they missed the obstruction 14 over years of condition surveys. The HEIJING 15 grounded on these pinnacles and there was an 16 incident there. There was another one on Coos Bay 17 where a ship grounded on a rock pinnacle in a 18 federal channel missed by condition surveys. 19 Recently a ship was steaming up the Columbia River, 20 headed up the river towards the anchorage, they 21 were unchocking the anchor on the deck that let go

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1	189 and the ship was doing 10 knots and it shot the
2	chain string out before it snapped free of the
3	ship. That one eventually we recovered but there's
4	five anchors that we know of laying in the Columbia
5	River that are still out there. So there's a
6	number of reasons why these obstructions are
7	appearing in this channel and it appears nobody is
8	at the helm to really do full coverage obstruction
9	surveys and I encourage I guess NOAA especially
10	being in the position that you're in, you might be
11	able to influence NOAA being involved in the full
12	coverage surveys on more of a regular basis and
13	extent that technology to the Corps of Engineers.
14	MR. DUNNIGAN: Emily.
15	MS. DICKINSON: Thank you, Admiral,
16	we're honored to have you here and glad we could
17	have a chance to talk to you about some of our
18	issues. I would only add that you keep the
19	recreational boater in mind as you deliberate over
20	all the choices that you have to make. Boating is
21	part of the marine transportation system. There's

1	190 70 million people who participate and 17 million
2	registered boaters in this country, most of which
3	do depend on charts, and hopefully they believe
4	they're accurate charts, but we know that that's
5	not always true. Our other concern is that some of
6	the biggest recreational boating areas and harbors
7	are probably going to stay so far down your list of
8	hydrographic survey priorities it's going to get
9	worse over time. For instance, Annapolis Harbor or
10	Newport, Rhode Island, some of the smaller areas
11	carry a tremendous amount of recreational boating
12	traffic. And I don't know what the answer is since
13	you have a priorities list that, you know, have
14	waters that still are not getting resurveyed which
15	are critical for shipping. So I'm a little
16	concerned that the recreational waterways are never
17	going to get resurveyed.
18	People also nowadays, boaters can spend
19	a couple hundred bucks and get a very nice GPS
20	plotter, I'm sure Jack has one on his boat, and
21	they think that when they look at the screen this

	191
1	is exact, and we know that it's not. But the
2	marine electronics is becoming so popular with
3	boaters, everybody with a small boat could have a
4	whole array of stuff and they're thinking hey, this
5	came from the government, this has gotta be right.
6	The other, my last point, is that
7	there's also a cost to boating for inaccuracy. We
8	talked about the ATHOS oil spill, which I think was
9	\$160 million in damages, there's four times that in
10	losses in the boat insurance industry from claims
11	every single year of boats running aground and
12	hitting submerged objects. It's about \$450 million
13	a year just from about 100 claims. So boaters are
14	out there, they're hitting things under the water
15	and anything you can do to help us would be great.
16	MR. DUNNIGAN: Larry.
17	MR. WHITING: Larry Whiting. Thanks for
18	coming, Admiral. First thing, I'm a retired
19	Hydrographic surveyor for Terra Surveys. I would
20	like to thank you guys from NOAA for the policy of
21	using qualified contractors for this work and I'd

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1	192 like to see the QBS system, the Qualified Base
2	Selection system, continue. Thank you.
3	CAPT. HICKMAN: Thank you for being
4	here. I'm Sherri Hickman with the Houston Pilots,
5	and until we can get Lou's electronically-driven
6	ship going, it's still in my hands, Lou. The PORTS
7	program, the Physical Oceanographic Real-Time
8	System is very near and dear to me as it is to
9	Andrew. The problem I see with that is that we
10	always seem to be on edge of not having it and then
11	there's ports that want it that don't have it and
12	can't afford it. It shouldn't be a matter of can
13	they afford it or not, it should be there for them.
14	We use that system daily, not just once every 24
15	hours, but every minute of the day. And I can't
16	stress enough how important that is to us. From
17	the report that's coming out, the 18 million it
18	generates or saves the port is nothing compared to
19	what it would be saving in the event of a
20	collision.
21	CAPT. MYRTIDIS: Good afternoon.

1	193 Captain Minas Myrtidis, I'm vice president of
2	regulatory and environmental compliance for
3	Norwegian Cruise Line and Sail America and Orient
4	Lines. It has been a pleasure serving as a member
5	of this panel. I believe I represent a significant
6	segment of the marine transportation system,
7	talking about the cruise industry, as we carry
8	millions of passengers every year. So I'd like to
9	say that I fully agree and support the
10	recommendations that they have included in our
11	special report and specifically I wish to focus on
12	the number five recommendation. The cruise
13	industry is steeped in passenger vessels which
14	could effectively carry five to six thousand
15	persons and safety of navigation is a primary
16	concern to us. It seems like you could say that
17	the waterways and ports have become smaller as the
18	ship size increases. I would like to reiterate the
19	fact that the need of a complete set of accurate
20	detailed electronic navigational charts is more
21	important than ever and right now I believe there's

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1	about a thousand paper charts that need to be
2	covered by ENCs. And I also think that NOAA is
3	falling short in the responsibility to provide the
4	ENCs, which is coincident with the U.S. Coast Guard
5	homeland security requirements. So we're going to
6	be very, very happy and we'll also be relieved to
7	see NOAA getting more aggressive with the
8	production of ENCs. Thank you. Pleasure having
9	you.
10	MR. DUNNIGAN: Adam.
11	MR. McBRIDE: Good afternoon, Admiral.
12	My name is Adam McBride, I'm the Port Director of
13	the Port of Lake Charles in Louisiana. Lake
14	Charles is the 12th largest port in nationwide
15	volume and handles over 4 percent of the nation's
16	oil supplies on a daily basis as well as 10 percent
17	of the nation's natural gas consumption on a daily
18	basis. So it's an integral part of the energy,
19	supplier of the energy needs of our country.
20	Before I make my staff comments I do
21	want to express my appreciation of Jack Dunnigan

1	195
1	attending our meetings regularly and sharing with
2	us his thoughts and activities as he works with
3	NOAA, and I find that very helpful and a
4	demonstration of the commitment of NOAA to work
5	with our committee also. Also Captain Steve has
6	been working with us and in particular I wanted to
7	mention two individuals within the NOAA group, Mike
8	Szabados from CO-OPS, who works on the PORTS
9	systems, which is a vital concern, not only to
10	Sherri and Andy and those ports who already have
11	them, but some ports don't yet have PORTS systems,
12	and I'm going to come back to that. I also want to
13	extend my appreciation for the work of the NRT
14	system that responds to vessels, which Hurricane
15	Rita struck the Port of Lake Charles just over a
16	year ago. They were absolutely instrumental in
17	getting back within about six days from onslaught.
18	We reported more fully on that as a port to the
19	HSRP meeting some months ago in Houston. But we
20	were able to reopen our channel within six days
21	because of the work of the NRTs, even though the

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1	196 NRTs and NOAA, even though the NRTs were initially
2	sent off to Houston, which didn't actually happen.
3	They were directed to Houston and eventually found
4	their way to Lake Charles. We got back up within
5	about six days, restoring that oil and natural gas
6	deliveries to our nation, it was very important.
7	We have, on the subject of the PORTS
8	system, we have for some years been seeking the
9	installation of a full PORTS system along the
10	30-mile inland channel at the Port of Lake Charles.
11	We have identified in consultation with NOAA
12	officials where the various meters and sensors need
13	to be located but have not been able to acquire the
14	funding either locally or through the budgetary
15	system and it's a continuing source of frustration
16	to us that something as important as the safety of
17	navigation in this energy waterway is a function of
18	the ability of the local port that may not have any
19	revenues from those energy users to pay for it
20	versus the needs of the nation and the payoffs, the
21	consequences of an incident.

1	197 In June of 2006 a major oil spill, a
2	hundred thousand barrels from the Citgo refinery
3	entered the waters of the channel and the Coast
4	Guard quickly shut down the channel. It was
5	eventually shut completely to all traffic,
6	including recreational, for about nine days. After
7	the first day or two as that spill moved southward
8	in the channel it began to move into some of the
9	lakes and tributaries of the main channel, areas
10	where had we deployed our booms and resources
11	better we might have limited the movement of that
12	oil spill into recreational and cloistered areas.
13	Had we placed the sensor where we had already
14	established they should have been we might have had
15	a historical record of how those currents moved in
16	those areas with those kinds of volumes of water.
17	And so one of the consequences of not having it was
18	the closure of that channel for as long a period as
19	it was. Our estimation, not counting over \$100
20	million in cleanup costs, the nation incurred
21	additional energy costs over that nine-day period

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1	198 in excess of \$1 billion in gasoline and natural gas
2	supplies which were cut off doing that time.
3	MR. SKINNER: Could I just interrupt for
4	a second? I think in a couple minutes the Vice
5	Admiral will be dragged away against his will to
6	next appointment. We didn't tell you what his time
7	frame was. I want to make sure you have time to
8	make all your points.
9	MR. McBRIDE: I just wanted to
10	reemphasize the needs and the importance of these
11	modest investments in safe navigational and the
12	consequences they help us avoid for the nation as a
13	whole.
14	MR. SKINNER: I wasn't expecting you to
15	end that quickly. I think that I also just want to
16	recognize the significant contributions of two past
17	members, Helen Brohl and Captain Parsons, as well
18	as the other federal members, and just to point out
19	the current operating draft we have is a
20	preliminary final. I think the panel wants to move
21	directly past the interim final and the grand

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1	supplemental final to have the final final on your
2	desk in the next four to six weeks. Thank you.
3	CHAIRMAN RAINEY: Thanks for those
4	acknowledgments. That is very much true. The NOAA
5	staff and leadership has been tremendous and
6	enabled us to produce this report and carry it
7	through. And I think it's at least certainly our
8	hope it will be received as it was intended and
9	will do some good for these programs that we feel
10	are so critical to the nation. I just wanted to
11	echo that again. Thank you so much for joining us
12	today.
13	VADM LAUTENBACHER: I didn't know
14	whether I was supposed to talk or leave. I see
15	this is addressed to me. I think we ought to
16	why don't you make up a cover letter and send it to
17	the Secretary too? I think it would be important
18	for you to report your findings to the Secretary of
19	Commerce. Maybe even the Secretary of
20	Transportation. We shouldn't hide this. I don't
21	mean sending it to me is hiding it, but you put a

1 lot of work into this and it's a valuable piece, I 2 commend that to the committee. 3 CHAIRMAN RAINEY: We'll certainly consult our FAC expertise and we wanted to deliver 4 5 it to you absolutely in the first instance and work 6 with you and your staff to carry it as far as we 7 can, sir. 8 VADM LAUTENBACHER: This is a very nice 9 summary of the status of where we are and what 10 needs to be done from the experts who use and rely 11 on the system, so I don't see any reason why we shouldn't give this as much exposure as we can. 12 13 I'm all for that. And I appreciate the comments. 14 I certainly agree with everything that has been 15 stated around the table from the folks who have 16 talked in addition to what you said in summarizing 17 the report. I just am thinking about -- Sam Farr 18 came to the committee hearing this morning, he's a 19 member of the Appropriations Committee but he's not 20 a member of the subcommittee, and he started 21 pointing out all the things that NOAA does and the

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1	importance of the ocean, which this is a big piece
2	of it, and said why does such an important agency
3	have such a little budget? Which I turned that
4	question back to him. Anyway I didn't
5	obviously, I was being somewhat facetious. I sat
6	there and listened politely, which I tended to
7	agree with him. I think the reason is, which I've
8	stated many times, we haven't made a big enough
9	case to a big enough audience as to why these
10	things are important. Maybe you've heard me say
11	this before so I don't want to sound too much like
12	a broken record, but educating the public and those
13	that are in the leadership roles is an important
14	way forward. Why aren't we higher on the priority
15	list, well, I don't think there's enough
16	understanding of why this is important. People
17	just accept the weather report in the morning, it's
18	just something that's given to me, and they don't
19	understand what it takes to get it, don't
20	understand what it takes to get their new car into
21	the port, all the reliance that we rely on to bring

1 the transportation system, what it takes to get 2 things in and out of our ports. So the more we can 3 do to help advertise that to a broader range of 4 audience the better off we are.

5 I was pleased this morning that a lot of people showed up, more people showed up at our 6 7 subcommittee hearing than in the previous five 8 years. We had a pretty good -- almost all, the 9 people filled up all the cars in the subcommittee, 10 that normally doesn't happen. As I said, I was 11 there for two and a quarter hours, so the time is 12 right I think to make a case. And you've got a good document here, you put a lot of effort into 13 it, it takes work to put this together. So I'd 14 15 like to see it and I'll certainly do what I can to 16 help advertise it and push it to places where people ought to see this as a statement of what the 17 community thinks is right for the country. 18 19 CHAIRMAN RAINEY: Thank you, sir. That

20 will be delivered. We will have another day 21 tomorrow to work with Jack and the program offices

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1 to try to figure out how we can come forward and 2 continue our effort. I'm very pleased you think 3 it's useful, thanks so much again.

VADM LAUTENBACHER: I'd like to sit here 4 5 longer, I really would prefer to sit through some of the work that goes on, it's just unfortunate 6 7 that this week there's two hearings and everything 8 in the world seems to be going on at the same time. It's been unfortunate that -- I'd certainly like to 9 spend a lot more time with you and listen to your 10 views and your expertise on some of these things, 11 but I do value what goes on and I hope that the 12 13 rest of the meeting will be successful and I look forward to hearing from you collectively and 14 individually on what we ought to be doing. Okay. 15 Do I still have a couple minutes? Anybody want to 16 ask some questions? What's your plan? Am I 17 18 breaking into the next deal here? MR. SKINNER: I think we have a public 19 session that starts when this ends. Adam, if you 20

21 have anything to add, I feel badly for cutting you

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1 off.

2

MR. McBRIDE: Since you asked.

3 CAPT. MCGOVERN: Andrew McGovern from Again I'd like to reiterate some of the 4 New York. 5 things you said, Admiral, the importance of the 6 marine transportation system that has to get done 7 before we're going to get the adequate amount of 8 funding. I was just thinking as you were saying it, I've always said this, if you shut down the air 9 transportation system it inconveniences a lot of 10 11 people, vacationers, business travelers, but that's 12 about it. If you shut down the marine 13 transportation system, within about three days 14 people are going to be cold and hungry. And maybe 15 one of the ways to highlight this is to do an economic study, that if we shut down each mode of 16 transportation for X amount of days what's the 17 18 impact. I think that will show very clearly that the biggest impact is going to be to the marine 19 transportation system and maybe that will elevate 20 21 it a little higher. It's a vitally important part

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	205
1	of the country and nobody seems to know about it
2	except for the people in this room unfortunately.
3	VADM LAUTENBACHER: I agree with that, I
4	think the more we can provide economic facts and
5	figures that really reach people's pocketbooks the
6	better off we are. I'm all for helping support
7	economic impact studies any way we can. I'll be
8	happy to support the review panel in sponsoring
9	that work if you'd like to do it. I certainly
10	we don't have a lot of economists, I have trouble
11	getting money for economists because they're not
12	considered part of our scientific stock of people
13	and expertise, but it's a critical part of what we
14	do, is the economic impact, so I agree and do think
15	it's very important to do that.
16	MR. SKINNER: Any other comments? I
17	knew if I waited long enough Helen would have her
18	hand up.
19	MS. BROHL: I'll just say thank you to
20	Admiral Lautenbacher for acknowledging the CMTS and
21	we'll certainly talk to the admiral and Jack about

1	206 the ways in which we can take this and either apply
2	it to our existing integrated action team on
3	navigation technology or take something out of it
4	as a single action item to run with on early on or
5	whatever seems appropriate. And one thing to add
6	to, when you talk about ways to value add this
7	recommendation, again, think about whether other
8	federal advisory committees would benefit from
9	this. I do think you guys are way up front in
10	terms of looking at the big picture compared to
11	some federal advisory committees and I think it's a
12	great example that they could learn from and be
13	inspired by. So when you go to reach out and pass
14	along you may wish to send it to other advisory
15	committee-sponsored organizations as well, but
16	we'll be sure to work with Jack Dunnigan to
17	facilitate this in a manner that is appropriate.
18	MR. SKINNER: Thanks, Helen.
19	MS. DICKINSON: You mentioned at your
20	hearing this morning that there was more interest
21	than you had seen in some time. I'm very curious

207 1 if you attribute that to any one thing. We'd all 2 like to think it's due to our great lobbying 3 efforts, but do you think it's because of the focus 4 on the ocean or Homeland Security? What's your 5 thought on that? 6 VADM LAUTENBACHER: I think it's because 7 collectively we are getting more effective in the 8 ocean community in getting the message out, of 9 which you are a part of this, so yeah, I think it's 10 made a difference. The House Ocean Caucus after a 11 few years has become I think more energized and 12 more interested in doing things because they've 13 been approached by more people, more constituents have come in and talked to them. And so I think 14 15 you've got the Joint Oceans Commission working 16 continuously instead of just issuing reports, two 17 separate reports. There's more collective interest 18 in ocean issues. I think that's made the 19 difference. It certainly made a difference, we had 20 123 million, 143 from the administration for ocean 21 issues this year, which is good. I mean it's taken

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1	a while, but it's like trying to move big boulders,
2	you don't move them very fast, you try to get
3	enough force on them to move them a bit and
4	eventually they get rolling. I contribute it to
5	the efforts of organizing panels and constituents
6	and creating a larger voice. I think we can do
7	more too with that. So I thank you. I think this
8	is, this panel is part of it, it's been energized
9	and gotten more actively involved in the last four
10	or five years and done better. With that I think I
11	better go unless there's something else.
12	MR. SKINNER: I think that's it. Thank
13	you very much, Vice Admiral.
14	VADM LAUTENBACHER: Thank you very much,
15	appreciate it.
16	MR. SKINNER: I'll start right with the
17	public comment session. There is a sign-in sheet.
18	MR. CHANCE: Thank you very much. My
19	name is Thomas Chance, I'm president and chief
20	executive officer of C&C Technologies, a
21	hydrographic surveying company, for those of you

1	209 who haven't heard of C&C, headquartered in
2	Lafayette, Louisiana. We have almost 400 people
3	and we operate internationally and domestically.
4	About 95 percent of our work is with the oil
5	industry offshore, about 5 percent of our work is
6	subcontracted to NOAA Coast Survey.
7	Basically I wanted to say two things.
8	One thing is I wanted to reemphasize that
9	hydrographic surveys, we hope the review panel
10	seriously takes into consideration other than just
11	cargo. We heard a lot about cargo and I know we've
12	got a lot of cargo and freight and this kind of
13	stuff and clearly that is very, very important. We
14	heard briefly about the recreational boaters. Down
15	on the Gulf Coast I can say we have thousands and
16	thousands of vessels supporting the oil industry.
17	The charts are very outdated. It's almost
18	embarrassing. I mean if your, whatever the recent
19	survey was, when the charts are updated it's great,
20	but outside of that it's a mess, and that's just
21	Louisiana and Texas and Alabama, and we've heard

	210
1	also in Alaska. So I would ask that you also
2	consider that there's thousands and thousands and
3	thousands of commercial fishermen all around the
4	country and the oil industry of course off the Gulf
5	Coast. They're not always in the channels, they're
6	not always in the fairways. In fact most of the
7	time they're outside of them, they're going into
8	waters 12 feet deep and they've got 10 foot of
9	draft. So the only time they know how deep the
10	water really is is when they're there, when the
11	water is under them. They can't tell 10 feet. So
12	I ask that you keep that in mind.
13	But the main thing I wanted to say is
14	that I've been following NOAA and the Coast Survey
15	and I guess what used to be Coastal Geodetic Survey
16	the mid-'80s when Admiral Hull was in charge.
17	There has been tremendous and dramatic change in
18	that organization over the years and certainly
19	change for the better. I would say it was, there
20	was a lot of animosity between the potential
21	contractors who back 20 years ago according to NOAA

	211
1	were completely not able to do any of this work; it
2	was just impossible for anybody but NOAA to do
3	hydrographic surveys. And I was working for a
4	company that had 16 surveys vessels at the time, I
5	couldn't understand it. But today I would say
6	there's a very positive relationship between NOAA
7	and the subcontract force. In fact I would go as
8	far as saying it's a model example of how
9	government and the private sector can work together
10	to leverage up on the assets of the private sector
11	to get stuff done and get stuff done efficiently
12	and effectively.
13	Some people are concerned about the
14	Brooks Act. I can tell you the margins on coast
15	survey work are about the same as we're seeing on
16	our other customers. And at the same time that
17	model allows Coast Survey to chose qualified
18	subcontractors and do it right. And if you're
19	going to spend the money you might as well do it
20	right because if you have some questions in it you
21	have to throw all the data away. You don't know

1 what's right or wrong.

2	That's really all I have to say, just
3	again commend NOAA and particularly Coast Survey
4	for their leadership in really moving forward in a
5	very positive way with the subcontractors. Thank
6	you.
7	CHAIRMAN RAINEY: Are there any other
8	comments? Any other business from the panel
9	members? That completes our schedule for today.
10	Unless anybody has other business.
11	DR. KITE-POWELL: Just one thing. A
12	number of people have broached some of the reports,
13	we can make the Tampa Bay report available. I
14	think everybody on the panel has received that but
15	I'll make that available to anybody again. Anybody
16	in the crowd can also get one. The lady in the
17	back, just leave your business card and name and
18	number and we'll mail it to you. The new report
19	will be coming out shortly and given to all the
20	members.
21	DR. LAPINE: Could we go over some of

1	213 the schedule on the report? Just even today
2	briefly looking through it, I have a couple of
3	questions on where we go for the next iteration.
4	CHAIRMAN RAINEY: Okay. Thanks for that
5	question. Let me take a stab at it right now.
6	Lou's absolutely correct. When we got the report
7	back there's a couple I think an opportunity in
8	fact that the process here is a preliminary final
9	in that it will give us a chance to review this.
10	We got this back from our contract writer and we do
11	have some changes that have been identified, so the
12	members were able to get them in. I did want to
13	allow the chance to go through and for us to
14	fine-tune this. We have some photos we'd like to
15	swap and there are some minor edits I think. But
16	we've had the opportunity to review the context of
17	this. The timetable is I would like for us to
18	we'll adjourn early each day here and we have a
19	significant amount of time tomorrow as we had one
20	presentation moved to today, we'll have some
21	working time to take a look at this. I would

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1	really urge the panel members, it's such a rare
2	opportunity that we do actually physically meet,
3	I'd like to get your comments if possible and let's
4	pick up as much as we can while we're together and
5	we'll extend the time for maybe a week, but what
6	I'd like to shoot for is a fairly quick turnaround.
7	We are very, very close I believe on finalizing
8	this and I would like to have it done and published
9	in final format so that, if it's going to be
10	possible, so that it will be available for Admiral
11	Lautenbacher to take to the next meeting. We'll
12	get the exact date, but that would be sort of, not
13	a definitive thing, and we can talk about it more
14	tomorrow, but I'm hoping we can turn it around
15	round quite rapidly within the next week and then
16	it's just a matter of printing it.
17	MS. BROHL: If I can talk about the time
18	line, if you have any interest in some form, if you
19	just want to present it, it could be distributed
20	outside of the normal meeting process by the
21	admiral to the board members. The next meeting

	215
1	though is April 20th, that's 30 days away. And so
2	what I would like to be able to talk to Jack about
3	after this is if you could advise him today or
4	tomorrow, would be what form this will be in in 30
5	days for presentation. If it's not completely
6	printed and published and ready for public
7	dissemination in the larger form because these are
8	federal people, it might not have any impact but
9	or if there's portions of it that you think are the
10	most important, I know you can't rank them one
11	through five as to what's the more important, but
12	let's say you couldn't if there was any one
13	thing that you felt was hugely important, I heard
14	about the obstructions and collisions, collisions
15	interests me because I could quantify things, the
16	improvements by saying that collisions have been
17	reduced, there's different types of accidents,
18	groundings, obstructions, there's actual
19	collisions, but the accidents, you could actually
20	see a reduction in what it would take to do that.
21	So I like that portion, but in lieu of let's say

216 you guys start to go around and it takes a while to 1 2 get it through everybody to comment, the next 3 meeting would be -- what next step would you want, 4 the next meeting after that would be July. So 5 think about those two dates. 6 CHAIRMAN RAINEY: Thank you. Admiral 7 West. 8 RADM WEST: If we have some time I 9 suggest we have a working session. We heard some briefings this morning. If you want this to be 10 11 timely, you just heard about the transition of the 12 administration, you've got a very short window to 13 have this thing go public. I think all the staff 14 folks have left, but we should not mess around, we 15 should finish tomorrow what we want to do and get 16 the thing out there so they can use it. We got 17 very good suggestions from the admiral today, 18 that's great, let's get it out and around. As I

19 said earlier, and as he said himself, we've always 20 been suffered with people not knowing what the hell

NOAA does, so here's an opportunity to do it and

21

	217
1	let's get it out there right away. I'd like to
2	spend a little time tomorrow talking about what we
3	heard today, what does that mean to us, what do we
4	do with it. I've got some questions especially for
5	Helen and a few other folks, what's our next
6	challenge. If we can set some time tomorrow to
7	work on this stuff in the morning and decide and
8	get this thing out, I don't know why we can't have
9	it done tomorrow.
10	CHAIRMAN RAINEY: I think we should
11	shoot for that. That's the plan with Dave's
12	presentation moving to today, we had two hours and
13	we just gained another one, and Helen, I can't give
14	you an exact answer but my proposal to NOAA would
15	be that we would do whatever we can with the
16	available resources they have to have that for that
17	first meeting. Then if it means before we have a
18	wider larger printing if you will through the GPO,
19	that can happen subsequently, but it would be
20	finalized, we would be done with it and that would
21	be more of a matter of presentation. So I think

1	218 that would be what we should try to do, is wrap up
2	the loose ends and deliver it quickly.
3	MS. BROHL: I'll look for guidance from
4	Jack. I'll be here from 11 o'clock on tomorrow.
5	I'm afraid I can't be here before 11 but I'd be
6	happy to participate however you like.
7	CHAIRMAN RAINEY: All right then. I'd
8	like to just reiterate the transportation to this
9	event this evening, and just so everybody
10	understands, it's going to be over at the Reserve
11	Officers Association. You should have an
12	invitation card that should have been distributed
13	with the details. The important thing I just
14	wanted to reiterate here is at 5 p.m. to meet the
15	bus at the hotel's Pennsylvania Avenue entrance.
16	Please try to be prompt. Probably, I don't know
17	we won't know if you're not coming or you're just
18	late. So we can take a head count here but I'm
19	aware things happen and people's plans can change.
20	So try to make that 5 o'clock departure time if
21	you're coming over to the reception. And then

											219
										indicate	ed
2	we'll	go	from	there	to	the	par	nel din	nner	this	
3	evenir	ng.									
4			Ти	vanted	to	agai	in t	hank	the na	anel	

sincerely for their efforts on this. I really think it went well and I appreciate everybody's comments and good presentations all around this morning. As Admiral West suggested, tomorrow we'll finish this project and work on a couple of other very important presentations tomorrow to follow on. So thanks very much for the efforts leading up to today and can I have a motion to adjourn? (Proceedings adjourned.) *****

STATE OF MARYLAND COUNTY OF BALTIMORE I, Richard D. Baker, Jr., a Notary Public in and for the State of Maryland, County of Baltimore, do hereby certify that the aforegoing is a true and accurate transcript of the proceedings indicated. Richard D Baker Jr. am Richard D. Baker, Jr., Notary Public

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