

UNITED STATES COAST GUARD (USCG)

+ + + + +

TOWING SAFETY ADVISORY COMMITTEE (TSAC)

+ + + + +

FALL 2016 MEETING

+ + + + +

THURSDAY

OCTOBER 27, 2016

+ + + + +

The Committee met in the Oklahoma
Rooms, U.S. Department of Transportation
Headquarters, 1200 New Jersey Avenue, S.E.,
Washington, D.C., at 8:30 a.m., Steven Huttman,
Chairman, presiding.

PRESENT

STEVEN HUTTMAN, Barge & Towing (B&T), Chairman
ERIC JOHANSSON, Port Districts, Authorities &
Terminal Operators (PDATO), Vice Chairman

MICHAEL CALIENDO, B&T, Great Lakes

STEVEN KRESS, B&T, Northeast

MATTHEW LAGARDE, B&T, Rivers

JILL TAFT, B&T, Southeast Coast

CHRIS MYSKOWSKI, B&T

MICHAEL VITT, [Active] Masters of Ship Docking
or Harbor Towing Vessels

DONALD SOUTHWORTH, Masters of Ship Docking or
Harbor Towing Vessels

RAYMOND RICHMOND, Masters of Pilot or Towing
Vessels

LAURA WILCOX, Credentialed Engineers of Towing
Vessels

BRIAN GUIDRY, Offshore, Mineral & Oil Supply
Vessel Industry
JOY TERRAL, Port District,
Authorities, &
Terminal Operators (PDATO)

JERRY CROOKS, JR., Shipper, Oil

MIKE FEWELL, Shipper

MICHAEL RUSHING, General Public

JO ANN SALYERS, General Public

ALSO PRESENT

PAUL N. JAENICHEN, Maritime Administrator
CAPT VERNE GIFFORD, USCG Director of Inspections
and Compliance
CDR JOSE PEREZ, USCG, Designated Federal Officer
WILLIAM J. ABERNATHY, Alternate Designated
Federal Officer
LCDR WILLIAM A. NABACH, USCG, Alternate
Designated Federal Officer
KEN BEATTY, Wilmington Towing, Inc.
ALAN L. BISH, Reinauer Transportation
TINA CARDONE, C-PORT
KEVIN COLEMAN, MARAD
RON CORIGLIANO, Campbell Transportation Company
Z. DAVID DELOACH, DeLoach Marine
JOHN FRANCIC, ABS
JERRY GALLION, Kirby Corporation
LUKE HARDEN, USCG
CAITLIN HARDY, Foss Maritime
TERENCE HOUSTON, AWO
CAPT JIM JENKINS, USCG, MARAD
CAPT SCOTT KELLY, USCG
MATT KENT, AWO
KEVIN KOHLMANN, MARAD
SCOTT KUHANECK, USCG
GEORGE LEAVELL, Wepfer Marine
RAY LECHNER, USCG
PATRICK LEE
PATRICK LITTLE, Buffalo Marine Service, Inc.
COURTNEY MALLON, USCG
JULIO MARTINEZ, USCG
IAN MCVICKER, ABS
TOM MCWHORTER, Maritime Services Group of
Louisiana
GREG MENKE, Evansville Marine Service
LEE NELSON, Upper River Services
FRED NYHUIS, Marathon Petroleum
EDWARD PINNER, Crescent Towing
JOHN QUINN, MARAD
SEAN REILLY, Southern Towing Company

ALSO PRESENT: (CONT.)

TRACI SILAS, DHS/FACA

CAITLYN STEWART, AWO

TOM SULLIVAN, Northstar Midstream

KEVIN TONE, USCG

CDR JACIE TWOMEY, USCG

LCDR MATTHEW WALTER, USCG

JASON WISNESKI, Dann Marine Towing

RICHARD WELLS, OMSA

CONTENTS

Introduction and Welcome	6
Designated Federal Officers.	6
Chairman's Opening Remarks11
Adoption of the Agenda13
TSAC Members and Audience.14
Remarks by the Maritime Administrator.22
Remarks by the USCG Director of Inspections and Compliance, CG-5PC	.49
Acceptance of Prior Meeting Minutes. (Spring and June Teleconference)	.64
Recommendations Regarding New and Updated. Policy for Articulated Tug and Barge (ATB) Combinations Currently Contained in NVIC 2-81, Change 1 (Task No. 15-02)	.66
Recommendations on Electronic Charting Systems (ECS) Carriage on Towing Vessels (Task 15-03)	.72
Presentation, Question and Answer on the Mariner Credentialing Program-Standup of CG Headquarters Office of Merchant Mariner Credentialing	142
Recommendations on the Implementation of	183
46 Code of Regulations Subchapter --- Inspection of Towing Vessels (Task No. 16-01)	

CONTENTS (CONT.)

Recommendations Regarding Firefighting 199

Training Requirements for Officer
Endorsements for Master or Mate (Pilot)
of Towing Vessels, Except Apprentice Mate
(Steersman) of Towing Vessels in Inland
Service (Task No. 16-02)

Recommendations Regarding Operational. 215

Risks Associated with Towing LNG Barges
Astern (Task No. 16-03)

TSAC Member Comments 221

Adjourn. 233

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

2 8:37 a.m.

3 INTRODUCTION AND WELCOME

4 DESIGNATED FEDERAL OFFICERS

5 CDR. PEREZ: Good morning, again.

6 Welcome to the full TSAC meeting. My name is
7 Jose Perez. I work at the Coast Guard
8 Headquarters at the Office of Environmental and
9 Operating Standards. I'd like to welcome, again,
10 for the second day of these proceedings.

11 Yesterday, we had a really interesting
12 day, a lot of discussion about our subcommittees
13 and their work. Overall I would like to say
14 thank you for the participation, for the
15 comments, thank you for the members of the
16 committee and the general public, and thank you
17 for volunteering to become members of the actual
18 subcommittees that were conducting work.

19 We encourage, at any time, to join us,
20 talk to the subcommittee chairs, and then become
21 an active member. Make sure that you provide
22 your comments, your feedback, and your expert

1 insight in relationship to the actual live tasks
2 and stuff we've got going on right now. Today,
3 we have a really, really interesting agenda, a
4 lot of topics, a lot of presentations. We do
5 have some distinguished guests. We will have
6 quick remarks by Captain Kelly, our executive
7 sponsor. We do have the presence of Captain
8 Gifford, and he's going to be presenting some
9 remarks about current implementation of efforts
10 for Subchapter M.

11 We also have the Maritime
12 Administration, the administrator's going to be
13 here, join us for a little bit, at 9:00, and he's
14 going to present some remarks and share some of
15 the common collaborations that we have going on
16 right now between MARAD and Coast Guard. Then
17 we're going to have the actual presentation of
18 the subcommittees. We do have quite a few of
19 them.

20 One of them is in terms of
21 implementation of Subchapter M, another working
22 on tilbury tug barge operations electronic

1 charting system, firefighting training
2 requirements for officers, and then we'll be
3 presenting the new task statement -- it was
4 finally vetted and cleared by the committee
5 yesterday -- in relationship of towing of LNG
6 barges and risks pertaining to those operations.
7 Just quick remarks from that part. We do have a
8 microphone in the back, right there on the table.
9 What I would like for our comments and for
10 general public and members of the TSAC, whenever
11 you want to make a comment, please come forward,
12 grab the microphone, and state your name and your
13 title. This is because today is a public
14 meeting, and we do have a court reporter.

15 He's recording all the comments for
16 the record, so we need to know who are you and
17 your title and what is your comments. Same thing
18 for members of the TSAC. Any time you ask a
19 question or make a comment, please state your
20 name and your title, so we can have it on the
21 record. Mr. Abernathy, if you can raise your
22 hand for people who doesn't know him. He's back

1 there, has sign-in sheets.

2 It's really crucial that we record the
3 name and the title of all the participants of the
4 meeting. If you haven't signed in, please do so.

5 We do have a break a little bit later on, so

6 please take advantage of that break and sign in.

7 At 11:30, we will be breaking for lunch. At that

8 time, the general public, feel free to utilize

9 the cafeteria here. They have a really

10 interesting menu, really good food. We'll break

11 from 11:30 to 1:00. That's for the members of

12 the general public. For members of TSAC, we're

13 mandated to have training. We're going to have

14 our DHS coordinator for FACA training and FACA

15 administration. She will be giving you all a

16 30-minute session to meet the requirements for

17 FACA training.

18 Lastly, I would like to share is

19 yesterday, we discussed and showcased a safety

20 alert that was recently published, and it's based

21 on the report from the work of the subcommittee

22 reviewing the KULLUK Report. We do have the

1 safety alert posted in our Homeport page. Then
2 Mr. Abernathy's going to make a quick safety
3 brief, and then he's going to show you and share
4 what is the address for the Homeport page.

5 At any time that you feel like you
6 need to know what's going on with TSAC reports,
7 you want to review the reports, you want to see
8 the safety alert, please feel free to visit
9 Homeport, and you can access the documents and
10 see what else is new and what are we doing with
11 this valuable FACA. That's pretty much all I
12 have to say. Thank you, again, good morning,
13 welcome. I would like to introduce our chairman,
14 Mr. Steve Huttman. He's going to say a couple
15 remarks, and then a couple things on the agenda,
16 and then we'll proceed accordingly with remarks
17 from our distinguished guests. Thank you so
18 much.

19 CHAIRMAN'S OPENING REMARKS

20 CHAIRMAN HUTTMAN: Thank you very
21 much. Thank you, Commander. Again, like
22 Commander Perez said, I'd like to thank everybody

1 for attending today, and also wish to thank the
2 Maritime Administration for hosting us again.
3 This is our third time back over here. We very
4 much appreciate the assistance from the Maritime
5 Administration to give us a place to meet here in
6 Washington.

7 This has been very beneficial for the
8 committee because we get to have much better
9 dialogue with the folks at Coast Guard
10 Headquarters and very much appreciate that, so
11 thank you. As the commander said yesterday, we
12 had a very productive day with our subcommittees.
13 I wish to take this opportunity to congratulate
14 them on the hard work that they've been turning
15 out for us. Yesterday's meeting, for some of you
16 who weren't here, Commander Perez was able to
17 tell us about the Coast Guard Safety Alert that
18 was issued on October 4th regarding the "Don't
19 Lose Your Toe in Heavy Weather, Plan Ahead to
20 Ensure a Safe Endeavor," which was truly a
21 ringing endorsement of the work of this body,
22 this committee, with the great work that was

1 produced on the report of the MODU KULLUK.

2 That was a very diligent report. The
3 committee worked on that for a number of years,
4 and we're very pleased to see that the Coast
5 Guard took a lot of those recommendations and set
6 that out for the widest dissemination to the
7 industry. We were very pleased to see that, so
8 thank you. Again, we have a pretty full agenda
9 today.

10 ADOPTION OF THE AGENDA

11 CHAIRMAN HUTTMAN: The first thing we
12 need to do is to accept the agenda by the
13 members. At this point, I'd look for a motion to
14 accept the agenda. Have a motion from Ms.
15 Salyers.

16 MEMBER SALYERS: Motion to accept.

17 CHAIRMAN HUTTMAN: I'm looking for a
18 second. Mr. Lagarde.

19 MEMBER LAGARDE: Second.

20 CHAIRMAN HUTTMAN: All those in favor
21 to accept the agenda, say aye.

22 (Chorus of ayes.)

1 CHAIRMAN HUTTMAN: Those opposed?

2 (No audible response.)

3 CHAIRMAN HUTTMAN: None opposed;
4 therefore, we'll continue with the agenda, as
5 written.

6 TSAC MEMBER AND AUDIENCE

7 CHAIRMAN HUTTMAN: The next thing is
8 for the introduction of the members and the
9 committee roll call. I'll start with that. I'm
10 Steve Huttman, vice president of operations for
11 G&H Towing Company, and the chairman of TSAC. I
12 represent the barge and towing industry. When I
13 call your name, if you could also tell us what
14 segment of the industry you represent for your
15 position on the committee, as well, I'd
16 appreciate that. Mr. Johansson.

17 VICE CHAIRMAN JOHANSSON: Good
18 morning, Eric Johansson, director of the tug and
19 barge committee, representing port terminals and
20 vice chair of TSAC.

21 CHAIRMAN HUTTMAN: Mr. Vitt.

22 MEMBER VITT: Good morning. I'm Mike

1 Vitt with E.N. Bisso & Sons of New Orleans,
2 representing the tug and barge industry.

3 CHAIRMAN HUTTMAN: Mr. Kress.

4 MEMBER KRESS: Good morning, Steve
5 Kress, McAllister Towing, vice president of
6 operations, representing the tug and barge
7 industry.

8 CHAIRMAN HUTTMAN: Mr. Myskowski.

9 MEMBER MYSKOWSKI: Good morning, Chris
10 Myskowski, Marquette Transportation, representing
11 barge and towing.

12 CHAIRMAN HUTTMAN: Ms. Taft.

13 MEMBER TAFT: Jill Taft, Kirby Inland
14 Marine, representing barge and towing.

15 CHAIRMAN HUTTMAN: Mr. Caliendo.

16 MEMBER CALIENDO: Mike Caliendo,
17 Andrie, Incorporated, president of the
18 transportation group, representing towing and
19 barging.

20 CHAIRMAN HUTTMAN: Ms. Terral.

21 MEMBER TERRAL: Joy Terral, Lemm
22 Corporation, representing terminals and ports.

1 CHAIRMAN HUTTMAN: Mr. Guidry.

2 MEMBER GUIDRY: Brian Guidry with
3 Edison Chouest Offshore, senior operations
4 manager, representing the oil and gas industry in
5 the Gulf East.

6 CHAIRMAN HUTTMAN: Ms. Wilcox.

7 MEMBER WILCOX: Laura Wilcox,
8 Massachusetts Maritime Academy, assistant
9 professor of engineering, representing licensed
10 marine chief engineering.

11 CHAIRMAN HUTTMAN: Mr. Lagarde.

12 MEMBER LAGARDE: Matt Lagarde with
13 American Commercial Barge Lines, director of
14 regulatory compliance, representing the tug and
15 barge industry.

16 CHAIRMAN HUTTMAN: Mr. Southworth.

17 MEMBER SOUTHWORTH: Wes Southworth,
18 captain, Moran Towing, Baltimore. I represent
19 harbor tugs and ship docking masters.

20 CHAIRMAN HUTTMAN: Mr. Richmond.

21 MEMBER RICHMOND: Ray Richmond,
22 SCF/Lewis & Clark Fleeting, pilot, representing

1 masters and pilots on the Western Rivers.

2 CHAIRMAN HUTTMAN: Mr. Rushing.

3 MEMBER RUSHING: Mike Rushing with
4 Rushing Marine, representing members of the
5 general public.

6 CHAIRMAN HUTTMAN: Ms. Salyers.

7 MEMBER SALYERS: Jo Ann Salyers,
8 Salyers Solutions Consultants, representing the
9 general public.

10 CHAIRMAN HUTTMAN: Mr. Fewell.

11 MEMBER FEWELL: Mike Fewell, barge
12 operations manager at Dow Chemical, representing
13 shippers.

14 CHAIRMAN HUTTMAN: Mr. Crooks.

15 MEMBER CROOKS: Jerry Crooks, Shell
16 Trading Company, marine technical advisor,
17 representing shippers.

18 CHAIRMAN HUTTMAN: Commander Perez, we
19 have a quorum present and request permission to
20 continue with the business of the committee.

21 CDR. PEREZ: Yes, sir, thank you so
22 much for that. Welcome, again. I would like to

1 highlight that we do have two new members to the
2 committee, Ms. Wilcox, Mr. Myskowski. Thank you,
3 and welcome to your first meeting. We look
4 forward for your participation. Yesterday, you
5 made some interesting remarks, so first time I
6 hear a new member speak actively and share their
7 experiences and their vision. I encourage you to
8 keep up the great work. Soon enough, you're
9 going to be leading a subcommittee and the lead
10 to some great final reports. Coast Guard looks
11 forward to those final reports. Mainly, like you
12 saw, the safety alert was published, also
13 regulatory development, so your comments and
14 recommendations are really vital to our efforts
15 to improve the standards of commercial towing
16 operations and other types of operations like,
17 for example, NOSAC next week.

18 Thank you, again, for that. I would
19 like to introduce, actually, my boss and our
20 senior executive sponsor, Captain Kelly. He
21 always participates with TSAC, and he's really
22 interested and really passionate about the great

1 work that we accomplish with TSAC, mainly because
2 of all the good stuff and the great relationship
3 that we're maintaining with Coast Guard.

4 Having some ex-Coasties on the
5 committee, that's always interesting to see how
6 they perceive the operation, not only from the
7 Coast Guard perspective, but also from their
8 current work and their activities. Thank you for
9 that. Captain Kelly, I have a two-page bio on
10 him, but I'm just going to say that he's the
11 chief of the Office of Environmental and
12 Operating Standards, Coast Guard Headquarters.
13 He joined us at TSAC last year, so we about a
14 year solid relationship. He's becoming an expert
15 and master at that relationship with FACA-related
16 committees. Captain Kelly.

17 CAPT. KELLY: Thank you, Jose. Good
18 morning, everybody. Once again, my name is Scott
19 Kelly. I'm from Coast Guard Headquarters. My
20 office is OES, Operating and Environmental
21 Standards.

22 One difference I do want to point out,

1 and I think you're going to hear about it later
2 today, we recently pulled out the credentialing
3 program and we consolidated all of credentialing
4 under a new Coast Guard office, the Merchant
5 Mariner Credentialing Program. You'll hear from
6 Luke Harden later today, I believe, about what
7 that means for all of you.

8 You can fire some questions at Luke
9 about manning. I'm sure you have a few. Again,
10 thank you, everybody, for coming to Washington,
11 D.C. It's beautiful here this time of year. I
12 want to thank our hosts, the Department of
13 Transportation and MARAD, and I want to highlight
14 and especially thank Captain Jim Jenkins, who's
15 here in the audience, who's our Coast Guard
16 liaison. We got put through the wringer earlier
17 this week about some rooms and he helped us
18 straighten it out, so I want to thank him. I, of
19 course, want to thank everyone here at TSAC for
20 your great work, your volunteer work, especially
21 the chairman and vice chairman, Steve and Eric.

22 Everything that TSAC does is vitally

1 important to the Coast Guard and the towing
2 industry, but I think today, you'll find the
3 discussions to be especially interesting, since
4 we've delivered Subchapter M, our regulations
5 that we've been waiting to hear about, that we
6 couldn't talk about in great detail, and now we
7 can.

8 Do want to highlight, you may find it
9 interesting that next week, Jose and I will be in
10 Houston once again, leading another FACA, the
11 offshore NOSAC. At that FACA, ironically enough,
12 most of the discussion is going to be about
13 safety management systems. We've heard from the
14 offshore industry about some of the things that
15 we've been focusing on about the value of a
16 safety management system and how they have told
17 us that the early investment in a safety
18 management system, not just a system on the
19 shelf, but a fully implemented safety management
20 system, not only makes for a safer vessel
21 operation, it saves the company money. I think
22 that's something we're all interested in. At

1 least, I'm interested in the safety aspect, and
2 I'm sure you're interested in the ability to
3 continue your business uninterrupted.

4 Thank you to everybody, once again,
5 for coming here today. I also want to thank
6 Captain Verne Gifford, who'll be speaking later
7 on today. He's in charge of all of our
8 inspections and compliance programs in the Coast
9 Guard, and he's been going around the country
10 talking quite extensively about Subchapter M, so
11 we look forward to his comments later. Then, of
12 course, I'll end it with thanking Commander Perez
13 and Will Nabach and Bill for setting this up
14 today. Thank you very much.

15 REMARKS BY THE MARITIME ADMINISTRATOR

16 CDR. PEREZ: Thank you, Captain. Now,
17 I have the pleasure to introduce and welcome
18 Admiral Chip Jaenichen. He was appointed by
19 President Obama and served as the maritime
20 administrator since 25th of July, 2014. He
21 previously served as both the deputy and acting
22 maritime administrator from July 2012 to July

1 '14. Sir, thank you for coming. He's going to
2 make some welcoming remarks. Thank you.

3 MR. JAENICHEN: Commander Perez, thank
4 you. I just happened to notice -- does anybody
5 get the Tug Technology and Business News?
6 Anybody see this one? I thought this was pretty
7 interesting. It's a gentleman, his title is that
8 the Jones Act is an obstacle to investing in the
9 U.S.

10 I assume if you're a foreign company,
11 that might be the case. The interesting thing
12 that he talked about is the fact that we don't
13 have Z drives, and that's holding it back that we
14 can't handle -- I thought it was very interesting
15 that he wants to get his company in to help us
16 get Z drives on our tugs.

17 I thought that was a pretty
18 interesting comment. Clearly, Jones Act is
19 holding his company back, but it's not about
20 technology because I think we already have that
21 out there. Good morning, everyone. It's
22 certainly a pleasure to be here. I want to

1 welcome you to the Department of Transportation
2 and apologize in advance. I understand, as I saw
3 the long lines trying to get through security
4 this morning, sometimes when we have more than
5 one or two conferences going on at the same time,
6 it's difficult to get into the building. I'm
7 certainly honored to be here with so many of the
8 industry experts that are connected to the towing
9 industry.

10 I'm going to make some remarks here,
11 and then I'll certainly open it up for questions,
12 but I'll leave it to the Coast Guard, who's
13 obviously set up this meeting today. This is the
14 day and time, which I think most of you already
15 know, the industry is, quite frankly, struggling.
16 They're facing many challenges. I was just out
17 in Paducah this past weekend, and I talked to
18 many of the two boat operators out there.

19 They were talking about some of the
20 cargo, specifically coal, which is down pretty
21 significantly. Other than that, the towing
22 industry is really the one sector of our maritime

1 industry that really is growing and, for the most
2 part, is thriving in this particular environment.
3 In many ways, what the towing industry has done,
4 they've taken a very proactive versus a reactive
5 approach to inevitable change, and it stands as a
6 very dynamic model for what the rest of the
7 industry, I think, should be emulating. I want
8 to extend a personal welcome to all the
9 towboat/tugboat operators and mariners and the
10 shippers and the port authorities who are here
11 today in D.C. and are here for this public
12 meeting.

13 I frequently ask my speech writer to
14 inject some humor into my remarks because he
15 feels like I have a very dry wit and it doesn't
16 go over very well. Today's humor comes
17 compliments of David Holbrook's daughter, Ashley.
18 He shared that when he was saying goodnight to
19 his two young daughters earlier this week, they
20 got to talking about some of the speeches that he
21 writes for me and some of the topics that they
22 talk about.

1 He explained the subject in quite a
2 bit of detail. He asked them what they thought I
3 should lead my remarks with because he told them
4 that I like to tell a little bit of humor up
5 front. His youngest sat for a moment and says,
6 "Okay, Dad, how's this? What do you get when you
7 cross a foot with a ship?" Anybody? You get a
8 big toe, T-O-E, boat. It's way better than mine,
9 so I'll just leave it at that. I think it was
10 actually definitely appropriate, with the largest
11 fleet size of any other maritime category in the
12 United States, with over 6,700 tugs and towboats
13 nationally, and another 100 or so that are
14 actually sailing in deep water, I put the towing
15 industry at the head, rather than at the foot, of
16 the industry.

17 Now you see how this all ties
18 together, right? As I noted earlier, some of the
19 segments of the maritime industry, they are
20 struggling. The U.S. Merchant Marine is at a
21 dangerous tipping point. We live in a time that
22 I absolutely thought that I would never see.

1 That's where the U.S. flag oceangoing fleet,
2 specifically that in international trade, has
3 shrunk to its lowest level in our nation's entire
4 history.

5 When I came to the Maritime
6 Administration a little over four years ago, the
7 international trading fleet that was U.S. flag
8 stood at 106 vessels and had been between about
9 120 and 100 or so for the last three decades. On
10 the 1st of October of this year, that number now
11 stands at 78, 27 percent decrease in the size of
12 international trading fleet in less than four
13 years. The U.S. flag percentage of ships that
14 are transporting freight internationally, and
15 that includes both imports and exports, is
16 shockingly and embarrassingly small.

17 Our maritime strategy for the nation
18 comes from the Merchant Marine Act of 1936 and
19 says we're supposed to be carrying a substantial
20 amount of our cargo on U.S. flag ships. Today,
21 that percentage stands at less than 2 percent. I
22 don't know about you guys, but substantial does

1 not mean 2 percent to me.

2 Of the 40,000 vessels that are moving
3 cargo globally in international trade, 78 are
4 U.S. flagged. Again, I'll just re-emphasize that
5 point one last time. That is the lowest level in
6 our entire nation's history.

7 Especially those of you who are
8 familiar with the Hanjin bankruptcy and the fact
9 that 3 out of every 4 shippers in the U.S. --
10 540,000 containers -- are hung up -- they
11 declared bankruptcy at the end of August. Many
12 of the containers are still not delivered to the
13 end customers, so that is certainly a challenge.
14 As the U.S. oceangoing fleet dwindles, so does
15 the part that the U.S. Merchant Marine plays, and
16 it directly affects our shipbuilding, and it
17 affects our mariner jobs. It affects our
18 resources. These are all essential resources and
19 components of both our national and our economic
20 strategies. The slow demise of these vital
21 assets increases our vulnerabilities.

22 It's both to international, but also

1 to transnational threats. It threatens our
2 standing as a maritime force to be reckoned with,
3 and it goes back to our nation's founding. The
4 real concern that I have is really from the
5 national defense standpoint because it's the U.S.
6 flag ships that ensures that we can globally
7 project and sustain our armed forces anywhere in
8 the world when they are needed to be able to
9 protect our national interests.

10 We have history that goes back to
11 prior to the Vietnam War, when U.S. cargoes for
12 Department of Defense, they refused to deliver
13 those cargoes to our troops. It's happened time
14 and time again, so we're very concerned. That
15 dramatic decline in strength and vitality of our
16 U.S. oceangoing maritime sector is putting both
17 our national and, I think, our economic security
18 at risk. It's a challenge that we're certainly
19 working hard at the maritime administration, and
20 also Department of Transportation, to try to
21 reverse. We're doing it through a National
22 Maritime Transportation Strategy. You'll notice

1 that we've added a word to that strategy.

2 It started off as the National
3 Maritime Strategy. It has now gone through its
4 first interagency review, and we've changed it to
5 transportation primarily because it does not have
6 a defense element in it. It's really about
7 transportation. It's about commerce. That's why
8 we've changed it.

9 We're also doing it through,
10 literally, millions of dollars in grants and
11 loans and versatile funding streams through the
12 Department of Transportation and the Maritime
13 Administration. We're making that available to
14 be able to modernize ports, maritime
15 infrastructure, and be able to recruit and train
16 the next generation of mariners. Just yesterday,
17 the Department of Maritime Administration
18 announced \$4.85 million in marine highway grants.
19 Three of those grants are going to bar services,
20 one between Baton Rouge and Memphis, the other,
21 what we call the M64 Express, which runs from
22 Hampton Roads all the way up to Richmond, and the

1 last one is going to be a demonstration project
2 for the Illinois Soybean Association. Those
3 grants were just announced yesterday.

4 The strategy, we believe, is going to
5 strengthen all segments of the industry,
6 including the towing industry. Today, what, in
7 all likelihood, with the election coming up -- if
8 you've ever seen the movie with Sylvester
9 Stallone, the Expendables -- I'm not expendable,
10 as we run up to the election, so most of the
11 political appointees will be going to greener
12 pastures or, in my case, I hope it's browner
13 water.

14 It is certainly a sincere pleasure to
15 be here today. It gives me an opportunity to
16 highlight, I think, one of the truly encouraging
17 segments of the maritime enterprise, and that is
18 one that is admittedly flying well below the
19 radar for the nation. It's below the public
20 consciousness. That's our nation's towing
21 industry, in terms of what you do day in and day
22 out. I'm not exaggerating when I call the

1 towboat and the barge sector the backbone of the
2 maritime industry. You know it, and I know it.
3 It's a very vibrant industry that supports
4 thousands of well-paying jobs. It contributes
5 significantly to our nation's economy and
6 enhances the health of many, many communities all
7 around the country, coast to coast, but mainly in
8 the U.S. heartland.

9 Your vessels, your operators, and your
10 crews are a vast array of services that are being
11 provided, from pushing 1,000 feet of barges out
12 in the waterways to handling and docking of
13 millions of tons of cargo on commercial ships
14 that are calling at our commercial coastal
15 harbors, to moving -- providing propulsion for
16 articulated tug barges, carrying oil and
17 petroleum products and taking those from the
18 refineries to markets all around the country.

19 There are many people, both inside and
20 outside of your industry, that don't realize that
21 your members have historically always led the
22 way, from the standpoint of marine safety and

1 environmental stewardship. That is one of the
2 real reasons why we're here today. As was just
3 announced, as I think everyone knows, this past
4 June, the U.S. Coast Guard published their
5 landmark Subchapter M, which raised a regulatory
6 floor in this critical industry segment. Over
7 the course of the next several years, during the
8 implementation period, it's going to take marine
9 safety and environmental stewardship to the next
10 level for this industry.

11 Subchapter M is the most important
12 rulemaking, I believe, that's ever been effected
13 for the tug and the towboat industry, striving to
14 achieve the lofty goal of zero harm to humans,
15 zero harm to the environment, and more
16 importantly, zero harm to property, as the towing
17 industry serves the critical waterborne commerce
18 for the nation.

19 The effort was certainly a massive
20 undertaking. It took over 12 years, as many of
21 you know. It brought together unprecedented
22 combination of intellectual resources from the

1 Coast Guard, from the Towing Safety Advisory
2 Committee, which is here, American Waterways
3 Operators, and hundreds of maritime leaders from
4 all across the country. Together, they produced
5 a very comprehensive 820-page document, the first
6 of its kind. What's even more impressive, I
7 think, is the fact that you did it on your own.
8 You worked creatively; you worked
9 collaboratively; and you worked proactively.
10 That is the precise formula of success that I
11 think the rest of the maritime industry should be
12 emulating if they want to not only survive, but
13 to thrive in the 21st century.

14 What you've accomplished is exactly
15 what I've been talking about. It provides the
16 specificity -- I've been talking about this for
17 the last four years, since I came to the Maritime
18 Administration. I do it at every conference that
19 I'm at, in terms of what it's going to take for
20 our industry to move forward, and you're doing
21 exactly that.

22 Your achievement has taken a long and

1 often exhausting process, but the final result, I
2 would say, is better than good enough. It
3 certainly is one that sets an example. I believe
4 the end result -- if you start with a goal in
5 mind to make sure that every towing vessel and
6 operator are competing on a level playing field,
7 I think that's good for the industry, and I think
8 it's good for the nation. My good friend, and I
9 think many of you know her, Jennifer Carpenter,
10 at American Waterways Operators, has been deeply
11 involved in the drafting of the Subchapter M
12 since its early inception in 2003. She has said
13 that her son, Chris, was born, essentially, the
14 very same week that AWO came back to the Coast
15 Guard and said, "We're happy to partner with you
16 on this regulatory journey."

17 Today, Jennifer proudly states that
18 her son, Chris, is now taller than she is, needs
19 a shave. That really is the story, what I'd
20 call, of commitment and perseverance and, simply,
21 just staying the course until the goal is
22 reached. It's a feat that I find that's even

1 more impressive when you consider how you
2 exercised forethought and, more importantly, you
3 thrust it upon yourself, as an industry, because
4 it was the right thing to do.

5 You didn't wait until there was a
6 major accident or a disaster. You didn't wait
7 until Congress forced it on you. You saw an
8 opportunity to take what was, for the most part,
9 a pretty safe, unregulated industry, and then
10 over the course of 12 years, you produced a
11 systematic body of rules to guide you forward.
12 There is no question in my mind that we would not
13 be here today without the collective leadership
14 of the industry and the Coast Guard across the
15 span of several years. What that means is
16 there's many, many people involved. If you think
17 about the rotations for the Coast Guard and how
18 many changes of leadership in the course of 12
19 years, to keep that on track, I think, is
20 singularly impressive.

21 The new regulations cover literally
22 every aspect of towing vessel operations to

1 reduce risks across the board. It covers the
2 management policies and procedures, the
3 structural integrity of vessels and how they are
4 maintained, from firefighting and life-saving
5 procedures to emergency equipment.

6 It takes a very serious and detailed
7 look at operating procedures, including such
8 things as how to shoot under bridges to make sure
9 that you don't elide with them, to prevent damage
10 to either the towboat, the barges, or the
11 structure of the bridge, itself. It places heavy
12 emphasis -- and I think this is probably the most
13 important thing -- on training, emphasizing both
14 the hardware and the software aspects of people
15 and the management systems, and also how all of
16 it fits and works together. It addresses a host
17 of environmental safety concerns by setting forth
18 best practices to prevent accidents that would
19 adversely affect rivers, ports, and harbors. It
20 keeps that waterborne traffic that must be kept
21 moving to ensure our nation remains both strong
22 and vibrant for our economy.

1 It's been a long time in coming.
2 Subchapter M is certainly a comprehensive
3 regulation -- I think everyone would agree that
4 -- whose results show that it was certainly time
5 well spent, and it was made possibly only because
6 the towing industry embraced the process from the
7 very beginning.

8 You had already been on a safety
9 journey, even before Subchapter M, previously
10 putting into place AWO's Responsible Carrier
11 Program that was a voluntary, self-regulatory
12 program. Yet, the industry kept asking what can
13 we do better to improve our industry standing
14 from the standpoint of safety? Here, just let me
15 state the obvious. What the tugs and towboats do
16 in the water I do not think, by any standard, is
17 an easy or an operation that has no dangers or no
18 inherent risks. Much larger ships have crews of
19 up to 26 mariners on board; whereas, a small
20 fleet boat or tugboat can have, you can look at
21 two, and maybe some of them will have up to six
22 or seven, but certainly, they have less than 12.

1 With these comparatively small
2 towboats and tugs that are moving very large
3 ships around the harbor -- if you think about it,
4 a towboat with a number of barges is moving the
5 same amount of cargo as a ship 20 times its size.
6 To me, that's pretty significant. They have to
7 line up.

8 They have to latch the long tows
9 together of upwards to 30 barges, navigate
10 winding waterways in all kinds of weather
11 conditions 24/7. I believe it's a pretty
12 difficult, and often risk-filled job, very labor
13 intensive. If a tug operator pulls instead of
14 pushes, the consequences could be pretty
15 significant. You can snap lines.

16 One moment of inattention can result
17 in injury, death, vessel damage, and potential
18 sinking. It is not a not-risky business that
19 you're in. I think what you've done, I think, is
20 significant. Twelve years ago, the towing
21 industry and the Coast Guard got together and
22 said we have an opportunity to build on what we

1 have in place and put together a comprehensive
2 regulatory structure, and you've done just that,
3 with support of the Coast Guard and the American
4 Waterways Operator each step of the way.

5 I think the Towing Safety Advisory
6 Committee has certainly taken charge, has a broad
7 array of very inclusive team, from companies both
8 large and small, from every geographic area, from
9 ship builders to towboat and tug operators and
10 owners and naval architects, all have provided
11 their technical input to the TSAC.

12 What's resulted, I think, is a truly
13 new world for the towing industry. I think there
14 are some people that say that it's just going to
15 take some time and we'll see, once we get through
16 the implementation stage, whether that really
17 proves it out, but I think you're certainly
18 making the right progress.

19 To everyone throughout the industry
20 who participated and brought Subchapter M to
21 fruition, I say congratulations and job well
22 done. That said, I think everyone recognizes

1 that the hard work is now beginning. That is to
2 be able to go through the implementation phase
3 and determine how to make these regulations work
4 in practice. That's going to require both time
5 and resources. Resources means manpower, but
6 more importantly money, in some cases.

7 The Coast Guard, naturally, is going
8 to shoulder a huge part of the burden of
9 implementation and, of course, AWO has pledged
10 their commitment to helping all of its members
11 navigate success with the transition to the
12 towing vessel inspection and to sharing
13 information on Subchapter M throughout its entire
14 industry as the rules are implemented.

15 It's going to continually be a
16 collaborative effort. You know that. I was just
17 down in Houston, and I met with the American
18 Bureau of Shipping. They recognize that they
19 have a role, potentially, to play in this.

20 They're going to be providing a
21 contribution in critical expertise and
22 consultation throughout this implementation

1 phase. I do want to express my full confidence
2 in all of you to complete the process, but even
3 more so, I want to express my deep appreciation
4 to the role of TSAC as an advisory committee to
5 the Coast Guard and for all the cooperation from
6 the industry to bring this significant milestone
7 and regulation into effect. If you continue to
8 work together, there's no question that you'll be
9 able to succeed and be able to move marine safety
10 and environmental stewardship forward.

11 Your work in the industry is going to
12 benefit the American people with even safer
13 waterways than we currently have today, but more
14 importantly, quality jobs and commercial
15 vitality. You're going to ultimately create, I
16 think, a very healthy and safe towing industry.

17 You've got a great track record, and
18 I have every confidence that you'll be able to do
19 that, so this is more -- this is just the
20 beginning. Again, thank you for the invitation
21 to speak. Thank you for coming and using the
22 Department of Transportation Headquarters. GSA

1 thanks you. Again, welcome, and I hope you have
2 a great meeting today.

3 CDR. PEREZ: Thank you, sir. Thank
4 you for the great remarks. Once again, thank you
5 for hosting us and allowing us to be here for the
6 last two days -- great accommodations, location.
7 This is perfect to host this type of meeting and
8 allow us to engage in our professional
9 information exchange and allowing the community
10 to generate the great recommendations that,
11 later, are going to be shared with Coast Guard,
12 and so on and so forth, for the greater good of
13 the towing industry. Thank you, sir. Now, I
14 would like to recognize the general public
15 joining us today.

16 I would like to take a couple minutes
17 to do a quick introduction of the general public.
18 We do appreciate your participation joining us
19 yesterday and today. We count on the valuable
20 comments and the expert insight that you shared
21 yesterday. Hopefully, we'll have another great
22 set of comments, questions, and sharing of

1 opinion about the topics that we're discussing
2 today -- yesterday and today.

3 Starting from the left, Mr. Abernathy,
4 if you can share the mic, so we could have our
5 guests from the general public stand up and
6 introduce yourself, name and your title. Then
7 that way, we'll also capture it on the record.

8 MR. ABERNATHY: I'm Bill Abernathy.
9 I'm the ADFO for TSAC.

10 LCDR. NABACH: Lieutenant Commander
11 Will Nabach, another ADFO for TSAC, Coast Guard
12 Headquarters.

13 CAPT. GIFFORD: Verne Gifford,
14 director of inspections and compliance, Coast
15 Guard Headquarters.

16 MR. BISH: Alan Bish, Reinauer
17 Transportation Company.

18 MR. LECHNER: Good morning, Ray
19 Lechner, U.S. Coast Guard Headquarters, Domestic
20 Vessel Compliance Division.

21 MR. KENT: Hi, I'm Matt Kent with AWO.

22 MR. HOUSTON: Terence Houston, AWO.

1 MR. MARTINEZ: Julio Martinez, U.S.
2 Coast Guard, Fifth District Office.

3 MR. PINNER: Eddie Pinner with
4 Crescent Towing of New Orleans.

5 MR. QUINN: Good morning, John Quinn,
6 associate administrator for environment and
7 compliance here at MARAD.

8 MS. CARDONE: Tina Cardone from
9 C-PORT, representing the marine assistance towing
10 companies.

11 MR. FRANCIC: John Francic with ABS
12 Group out of Houston.

13 MR. NYHUIS: Fred Nyhuis with Marathon
14 Petroleum.

15 LDCR. WALTER: Matthew Walter, Coast
16 Guard Headquarters, Office of Navigation Systems.

17 MR. MENKE: Greg Menke, Evansville
18 Marine Service.

19 MS. MALLON: Courtney Mallon,
20 attorney, Office of Regulations and
21 Administrative Law.

22 MR. REILLY: Sean Reilly, Southern

1 Towing Company, Memphis, Tennessee.

2 MR. MCVICKER: Ian McVicker, ABS out
3 of Paducah.

4 MS. HARDY: Caitlin Hardy with Foss
5 Maritime.

6 MR. NELSON: Lee Nelson, Upper River
7 Services, St. Paul.

8 MR. LEAVELL: George Leavell, Wepfer
9 Marine, Memphis.

10 MR. LEE: Good morning, Patrick Lee
11 representing the general public.

12 CDR. TWOMEY: Jacie Twomey from the
13 Coast Guard's Towing Vessels Center of Expertise.
14 Thanks, Pat, for all you've done for us in the
15 past. I also wanted to let you know that Scott
16 Kuhaneck is also here from the CVC, but he
17 stepped out for a second.

18 MR. LITTLE: Patrick Little, Buffalo
19 Marine, Houston, Texas.

20 MR. TONE: Kevin Tone, Coast Guard
21 marine safety specialist at Vessel Facilities
22 Operating Standards.

1 MR. GALLION: Jerry Gallion, Kirby
2 Corporation, Houston.

3 MR. MCWHORTER: Tom McWhorter,
4 Maritime Services Group out of New Orleans,
5 Louisiana.

6 MR. WISNESKI: Jason Wisneski, Dann
7 Marine Towing, Chesapeake City, Maryland.

8 MR. BEATTY: Ken Beatty, Wilmington
9 Towing, Incorporated, Wilmington, Delaware.

10 MR. WELLS: Richard Wells, Offshore
11 Marine Service Association, New Orleans.

12 CAPT. JENKINS: Good morning, Jim
13 Jenkins, captain in the Coast Guard and the
14 liaison over here at Department of
15 Transportation.

16 MR. CORIGLIANO: Ron Corigliano with
17 Campbell Transportation Company out of
18 Pittsburgh, Pennsylvania.

19 MS. STEWART: Caitlyn Stewart with the
20 American Waterways Operators.

21 MR. DELOACH: Z. Dave DeLoach, DeLoach
22 Marine.

1 MR. COLEMAN: Kevin Coleman, I'm the
2 safety director here at the Maritime
3 Administration.

4 CDR. PEREZ: Thank you, Commander
5 Nabach. Yes, sir?

6 MR. ABERNATHY: All right, some of you
7 didn't sign in, need to have you sign in, please.

8 CDR. PEREZ: We're going to continue
9 the agenda. We'll have a break scheduled in a
10 couple minutes. Then I encourage for the rest of
11 the public to sign in, so we can make it
12 official. Just quick, as a safety brief notice,
13 we do have our facilities -- restrooms are
14 towards the back, both for female and male.

15 We do have dining hall facility, which
16 we're going to be using for lunch. The exits are
17 clearly marked. In case of an emergency, we will
18 follow Mr. Abernathy outside the building. He's
19 going to guide us to safety. At any time, if you
20 have any questions about the building, the
21 facilities, or anything else that you need,
22 please approach Mr. Abernathy or Lieutenant

1 Commander Nabach, and they will be more than
2 happy to assist you. Also, please make sure that
3 you sign in the sign-in sheet. Now, I take great
4 pleasure to introduce our final distinguished
5 guest. He is Captain Gifford.

6 He is the chief of inspections and
7 compliance, and he oversees policy enforcement,
8 casualty investigation for commercial and
9 recreational vessels, waterfront facilities, and
10 port security. I do also have about two pages,
11 but we're going to leave it at that and let
12 Captain Gifford make his remarks. Thank you,
13 sir.

14 REMARKS BY THE USCG DIRECTOR OF INSPECTIONS AND
15 COMPLIANCE, CG-5PC

16 CAPT. GIFFORD: I think you'd
17 appreciate my joke telling more than my
18 biography, and my joke telling's not that good,
19 so I'll get to business. Chairman Huttman, the
20 members of TSAC, thank you very much for the
21 opportunity to speak to you today. This is the
22 fifth time in front of a group of industry. AWO

1 was kind enough to open up its meetings. During
2 the summer, we went to Portland, Pittsburgh, New
3 York, New Orleans, and now here today. We've
4 spoken to about -- the highlight, in just terms
5 of numbers of people, was Pittsburgh, where we
6 spoke to about 325 people and presented
7 Subchapter M. Each audience has been upwards of
8 at least 100 people to 200 people.

9 I'd say all told, it's probably 1,000
10 people that we've briefed on Subchapter M, just
11 how we were going to go about ensuring that we
12 met all of the regulatory requirements, what the
13 timeline was, and then how we were going to
14 address issues as they arose. This is the first
15 TSAC meeting since Subchapter M has gone into
16 effect.

17 It's a pretty noteworthy meeting just
18 for that. I'm thankful -- we had some 11th hour
19 concerns about meeting room size. We were told
20 we were initially going to be put into a place
21 with 78 people, so thank God this place opened up
22 again. It's very nice to see everybody.

1 For us, Subchapter M is significant,
2 in terms of numbers. We're going to have 6,000
3 new towing vessels that join the inspected fleet.
4 That is an increase of 50 percent. The inspected
5 fleet right now, for the Coast Guard, is 12,000
6 vessels. This increases, by 50 percent, the
7 number of vessels that we'll be inspecting.
8 Another interesting and unique factor about
9 Subchapter M is that it contains two options for
10 compliance. There's the Coast Guard option,
11 which I think everyone who may have owned an
12 inspected vessel before is familiar with, where
13 Coast Guard inspectors go out and conduct the
14 inspection on an annual basis.

15 They attend all dry docks. They make
16 sure they go to internal structural exams. This
17 one has the TSMS option, which allows the company
18 to use a third party to conduct audits, and also
19 to conduct surveys, either externally or
20 internally, so that they can then obtain a
21 certificate of an inspection working with the
22 Coast Guard, having much less involvement by the

1 Coast Guard.

2 The Coast Guard would only be looking
3 at vessels on the order of once every five years,
4 assuming everything is running well. This
5 rulemaking is very significant from that point.
6 I think it's always important to just emphasize,
7 again, how safe the towing vessel industry is.
8 When you look at presentations, because it's
9 considered part of the transportation sector,
10 just in terms of how much moves by the towing
11 industry and how safely it all moves -- you look
12 at any one barge -- I think everyone's familiar
13 with this, but it bears repeating, one barge
14 carries anywhere between 70 to 140 truckloads.
15 It removes those truckloads from the roads, which
16 are already congested.

17 It carries anywhere from 16 to 46
18 railcars, depending on the kind of car you're
19 looking at. It does it much more safely. For
20 every death in the towing vessel industry, there
21 is 22 deaths in the rail industry, and there's
22 155 deaths in the truck industry. You already

1 are starting at a benchmark for the rest of the
2 transportation industry.

3 You do things much more safely than
4 they do and, quite frankly, since the Bridging
5 Program started in 2004-2005, the number of
6 deaths has decreased to 30 percent of what it was
7 back in 2005. Also, when you just look at the
8 number of spills, if you look at the six lowest
9 years for spills for the towing industry, they've
10 all happened within the last eight years. There
11 is a noted trend downward, in terms of incidents.
12 Because barges move so much, when an incident
13 does happen, it gets noted. That's what we're
14 here to try to prevent, those things that draw a
15 lot of attention and cause a lot of anguish on
16 the part of the towing industry and the Coast
17 Guard when we're trying to respond to things. I
18 think, though, you can definitely see a trend of
19 safety.

20 June 20, 2016, that's the date, etched
21 in stone, of when the rulemaking was published.
22 June 20, 2017 is when Subchapter M will apply to

1 new vessels, and June 20, 2018 is when it will
2 apply to those 6,000 existing vessels. We've got
3 some time, but not much time, and we're moving to
4 try to make sure that we're addressing those
5 outstanding issues that allow us to effectively
6 implement Subchapter M.

7 We are trying to incentivize. We
8 realize that safety management systems, we want
9 to put quality control into the hands of the
10 companies, themselves. We don't want the Coast
11 Guard, necessarily, being responsible for a
12 once-a-year look to see if you're operating
13 safely. We want to make sure you're operating
14 safely all the time. It's been proven that a
15 safety management system makes that happen. We
16 want to do everything we can to incentivize
17 companies to adopt a safety management system,
18 and we're working just toward that end. One of
19 the first things that we're doing is we are
20 implementing -- we're collecting feedback.
21 Throughout those meetings, there were upwards of
22 250 issues that have now been raised.

1 We have those issues posted on the
2 National Center of Expertise website. I'm going
3 to point to the subject-matter expert who dressed
4 like me, just to make sure I wasn't going to be
5 the only one. Jacie, could you stand up, please?
6 If you guys start asking very hard questions, as
7 soon as we get through my brief remarks, Jacie
8 will likely answer them. She's been a rock star,
9 in terms of making sure everything is implemented
10 well.

11 Next to her is Scott Kuhaneck, who has
12 also been here day in and day out. Pat Lee, he
13 no longer works for us, but he could probably
14 answer those questions very well, too. I want to
15 mention just how we're addressing issues, as we
16 collect those issues. Scott Kelly, here, is our
17 acronym master on the headquarters staff, so he
18 always makes sure that we always develop
19 something that can be effectively acronymized.
20 In this case, the Towing Policy Council, or
21 TOPOCO, is the group of headquarters, area,
22 district, and the NCOE staffs that meet to

1 address the issues that come up. TOPOCO meets
2 twice every week. On Tuesdays and Thursdays, at
3 1300, we're having conference calls that bring
4 everyone in to address the issues at hand.

5 Of those 250 issues, we've identified
6 about 40 that are high priority. We're trying to
7 tackle those 40 first. We're making slow, but
8 effective progress. Right now, we've got 40
9 papers that are in draft status, that are getting
10 vetted and viewed throughout the system. I think
11 we will soon be able to start publishing those
12 papers online.

13 What you have online right now, if you
14 go to the NCOE website, is a listing of
15 frequently asked questions that's about seven or
16 eight pages long. You also have a spreadsheet
17 that, when you print it out, is over 25 pages.
18 That includes the 250 issues that I mentioned.
19 You can look and see what issues have already
20 been submitted. What we hope to also post is
21 what our answers to those issues are, but
22 everything requires legal reviews, so sometimes

1 it takes a little bit of time. In addition to
2 what we talk about at TOPOCO, we have an open
3 task statement with TSAC. We use that,
4 effectively, to present to you our TPO or
5 third-party organization guidebook.

6 That's the guidance we're offering in
7 addition to Subchapter M that allows us to go
8 through the process now -- when I say us, the
9 NCOE is responsible for approving TPOs. After
10 TSAC review and comments, we hope to then get
11 those comments, address them, and make sure that
12 we're on our way to approving third parties.

13 As you know, third parties are the
14 ones that issue the certificates to the
15 companies, and those certificates have to be in
16 place six months prior to companies then getting
17 COIs for their vessels.

18 With the July 20, 2017 timeline for
19 new vessels, we want to make sure that we, of
20 course, have approved TPOs, so that they can
21 start issuing certificates by January 20, 2017
22 for those new vessels. We definitely want to

1 make sure we have everything in place for the
2 existing vessels. With that, I'll try to yield
3 back my time. I didn't want to go a full half
4 hour here. If anyone has any questions, we do
5 have subject-matter experts coming in to address
6 licensing issues later on in the day, so I would
7 ask that if you have a licensing question, you
8 wait for Mr. Luke Harden, who will be coming from
9 our headquarters staff.

10 I know person in charge is an issue
11 that always gets a lot of interest, and he should
12 be able to address where we stand with that
13 person in charge issue. We can address, with the
14 help of the folks in the audience here from the
15 Coast Guard, any other questions that the public
16 or TSAC may have. Thank you.

17 CHAIRMAN HUTTMAN: Any questions from
18 the members for Captain Gifford? Everybody must
19 have already heard him speak at one of the other
20 opportunities. I do want to give you some kudos
21 for that, Captain Gifford.

22 I had the pleasure to hear you speak

1 at the AWO conference in Pittsburgh. I really
2 appreciate the openness and the welcoming
3 atmosphere that you established between your
4 staff and TSAC and the Coast Guard and industry
5 in working through the issues that inevitably are
6 going to arise in Subchapter M.

7 CAPT. GIFFORD: Thank you, Mr.
8 Chairman.

9 CHAIRMAN HUTTMAN: Thank you very much
10 for that. Do we have any questions from the
11 general public for Captain Gifford? Again, if
12 you could state your name and who you represent
13 for the reporter, that would be appreciated.

14 MR. WELLS: Good morning, Verne. I'm
15 Richard Wells of the Offshore Marine Service
16 Association. One of our members brought up an
17 issue that was surprisingly unclear to me, so I'm
18 going to bounce it off you and see what you
19 think. A vessel that is multi-certificated as an
20 OSV cargo vessel and an anchor-handling tug
21 supply vessel, when that vessel is towing a MODU
22 under it's I certificate, it's operating as a

1 towing vessel.

2 The question is the manning. Is the
3 master, mates, engineers on the vessel adequately
4 manned if they have a master or mate towing with
5 the correct route and tonnage, or do they also
6 need a Subchapter I vessel license of appropriate
7 tonnage and route?

8 CAPT. GIFFORD: Scott stood behind
9 you. That's one of two things. Either I put him
10 to sleep and he's trying to wake himself up, or
11 he probably has addressed this issue before and
12 is really just ready for it. Scott?

13 MR. KUHANECK: Scott Kuhaneck, Office
14 of Commercial Vessel Compliance. I was
15 anticipating another question that we'd gotten,
16 Richard. To be honest, we have to take a look at
17 that from a credentialing standpoint. We've had
18 questions come up about multi-service and
19 occasional towing if they're certificated and how
20 M might apply, so I was anticipating that vein.
21 I did not necessarily anticipate the
22 credentialing question. I think that's best,

1 maybe, something we should lob toward MMC, sir.

2 CAPT. GIFFORD: Thank you, Richard.

3 MEMBER LAGARDE: Matt Lagarde with
4 TSAC. I did happen -- when the list was down to
5 205, I think, I read through everything. I
6 noticed that we had priorities set out there next
7 to a lot of the different questions that came in.
8 One of the questions was in regard to watertight
9 closures and bulkheads. I happened to notice
10 that the level of priority next to that question
11 was a 3. Considering that was one of the first
12 things to go in effect under Subchapter M, I was
13 wondering where that priority shook out as a 3,
14 instead of a 1, being it was one of the first
15 things to come into effect?

16 CAPT. GIFFORD: I can't necessarily
17 tell you -- I wasn't involved in the
18 prioritization, but you're right. If, for some
19 reason, you're awaiting an answer to a question
20 that you're like, "We already have to comply with
21 this," if you bring it to our attention, I think
22 we can -- if we haven't already addressed it, we

1 can make sure we're addressing it in the very
2 near future and we know what the problem is.

3 MR. NELSON: Lee Nelson, Upper River
4 Services, St. Paul. This may be the question
5 that Scott was preparing himself for. I'm not
6 sure. A number of us perform different
7 functions. We're moving barges, building tows,
8 switching barges all the time, but we also make
9 crew changes for line-haul boats.

10 The question's come up what do we do
11 about licensure? Because you're effectively
12 hauling passengers for hire. What about the
13 manning, whether you're moving a full crew or a
14 part of a crew? That's an issue on the Western
15 Rivers of how we're going to handle that and what
16 proper documentation we're going to need.

17 MR. KUHANECK: Scott Kuhaneck, again,
18 Office of Commercial Vessel Compliance. Lee, if
19 it's 12 or less, I think you're covered. You'll
20 be fine with that.

21 MR. NELSON: Even though there's an
22 operator that licensed.

1 MR. KUHANECK: Right.

2 MR. NELSON: A towing operator.

3 MR. KUHANECK: Right. Yes, I think
4 we'd be fine with 12 or less. Above 12, we might
5 have some issues. I think there's existing
6 regulations and policy that would cover moving
7 individuals who are not crew members from one
8 location to another when it's 12 or less.

9 CAPT. GIFFORD: I would encourage
10 everyone, especially if you feel you've got an
11 urgent issue -- I'll put Jacie, but the NCOE out
12 there. No. 1, the website allows feedback, but
13 if you don't feel that's a quick enough vehicle,
14 make sure you're just calling the NCOE and
15 telling them this is already in place; we need an
16 answer. We'll bring it up at the following
17 TOPOCO meeting if it hasn't already been
18 addressed. We'll take care of it. Then any
19 other issue that, perhaps, allows us a little
20 more time to digest it, hopefully we can take
21 that time. Thank you very much, everyone.

22 CHAIRMAN HUTTMAN: Thank you. Thank

1 you, again, Captain Gifford. We appreciate you
2 making the time available here. We stand ready
3 to take on any of those additional tasks that you
4 may send our way. We appreciate very much that
5 we got the guidebook just the other day. That's
6 already been forward to the members.

7 Later this afternoon, we'll be taking
8 on the first of our recommendations for Report
9 No. 1 out of our Subchapter M implementation
10 team. Just as they're wrapping up one task,
11 they're ready to take on the next. We very much
12 appreciate that. Thank you.

13 ACCEPTANCE OF PRIOR MEETING MINUTES (SPRING AND
14 JUNE TELECONFERENCE)

15 CHAIRMAN HUTTMAN: At this point, we
16 have a couple of administrative items to take
17 care of. I had previously sent to all the
18 members our minutes from both our spring meeting,
19 as well as our summer teleconference, for your
20 review. Both of these meeting minutes may be
21 found on the TSAC website at Homeport -- Missions
22 Homeport. I just go to google and type TSAC and

1 Homeport, and it takes you to the right page. I
2 won't spend the rest of the time going through
3 that. At this point, I'll need to entertain a
4 motion for acceptance of both the spring and
5 summer teleconference minutes. Do I have --

6 MEMBER GUIDRY: So moved.

7 CHAIRMAN HUTTMAN: Mr. Guidry made a
8 motion to accept. I need a second.

9 MEMBER CALIENDO: Second.

10 CHAIRMAN HUTTMAN: Second by Mr.
11 Caliendo. At this point, we have a motion on the
12 floor to accept the minutes from the spring and
13 fall teleconference. I'll call for a vote. All
14 those in favor, say aye.

15 (Chorus of ayes.)

16 CHAIRMAN HUTTMAN: All those opposed,
17 say nay.

18 (No audible response.)

19 CHAIRMAN HUTTMAN: Any abstentions?

20 (No audible response.)

21 CHAIRMAN HUTTMAN: We have two
22 abstentions, our new members, noted. With that,

1 the meeting minutes have been accepted. We'll
2 sign those and get those over to the DFO for
3 acceptance. Thank you very much for that. I
4 think we have covered all the items on the agenda
5 at this point, and we are scheduled -- we're a
6 little bit ahead of time. We've been running
7 well. We're planning a break, so we'll go ahead
8 and take that break right now, with the plan to
9 return at 10:00, a little earlier than what's on
10 the agenda -- at 10:00. That will give us time
11 to have our first report from our subcommittee.
12 Thank you. We'll see you at 10:00.

13 (Whereupon, the above-entitled meeting
14 went off the record at 9:38 a.m. and went back on
15 the record at 10:02 a.m.)

16 RECOMMENDATIONS REGARDING NEW AND UPDATED POLICY
17 FOR ARTICULATED TUG AND BARGE (ATB) COMBINATIONS
18 CURRENTLY CONTAINED IN NVIC 2-81, CHANGE 1

19 (TASK NO. 15-02)

20 CHAIRMAN HUTTMAN: Okay, we're going
21 to go ahead and continue with the published
22 agenda today. At this point, we'll begin the

1 process of our subcommittee progress reports.
2 The first one that we have queued up for this
3 morning is from the subcommittee concerning the
4 recommendations regarding new and updated policy
5 for articulated tug and barge (ATB) currently
6 contained in NVIC 2-81, Change 1. For us, this
7 is Task No. 15-02. Mr. Jerry Crooks is our
8 subcommittee chair. With that, we will turn this
9 over to Mr. Crooks for a report on the status of
10 this task.

11 MEMBER CROOKS: Good morning,
12 everybody. I'd like to stand up here and tell
13 you that we've made a lot of progress on this
14 tasking, but the fact is that we haven't. This
15 has been an unusual task, in that the first three
16 tasks all are dependent on a different group
17 having finished their work before we can actually
18 begin ours. The history on this one is that the
19 Coast Guard was developing a policy letter to
20 deal with conditional occupancy of ATBs.

21 The purpose was to allow there to be
22 people aboard an ATB to operate necessary

1 machinery while underway. The Coast Guard had
2 formed a working group with AWO, and they were
3 going to draft interim policy guidance, with the
4 ultimate goal of bringing that policy guidance to
5 TSAC, and then eventually revising the NVIC 2-81,
6 Change 1. We were tasked with reviewing that
7 interim policy letter as Task 1, once completed,
8 and reviewing the proposed recommendations of the
9 working group, once they complete their work.
10 The good news is that since the spring, the
11 policy letter has been completed. It was issued
12 in July. The AWO working group has now scheduled
13 meetings.

14 We're going to meet in Washington here
15 in a couple of weeks, November 15th and 16th, to
16 continue that work. We haven't been completely
17 inactive. The subcommittee has done some work
18 developing a strawman as a starting point for our
19 discussions, once we receive the AWO report. But
20 at this point, beyond developing that strawman
21 document, we really haven't done much, other than
22 wait for the policy letter.

1 I don't have a lot of progress to
2 report. We've been a bit impatient waiting for
3 this. We're really hopeful that the working
4 group will wrap up its work soon, and we're
5 hoping that at the spring meeting next year, we
6 can present a draft report. But at this point,
7 that's really the extent of the work that we've
8 done. I'll entertain any questions, if anybody
9 wants to -- has something that they want to
10 contribute or ask.

11 CHAIRMAN HUTTMAN: Do we have any
12 questions from TSAC members for Mr. Crooks?
13 Hearing none, we'll ask if there's any questions
14 from the general public for Mr. Crooks regarding
15 this task? We have no questions. I do have one,
16 Mr. Crooks. Yesterday, there was some discussion
17 regarding the NVIC, where we were talking about
18 better redefining the name from ITBs to ATBs with
19 dual modes. Can you speak to that for a moment,
20 just in terms of the issue, as it's been raised?

21 MEMBER CROOKS: I did mention that we
22 had done some work as a subcommittee. One of the

1 things that we had done, we met at the spring
2 meeting and we discussed, among other things, the
3 issue of the terminology. The consensus of the
4 subcommittee is that we would like to see this
5 terminology of dual mode ITB go away.

6 We can't really remove the term ITB
7 from the NVIC because there are two operating
8 ITBs in the U.S. flag fleet currently. We did
9 some research on that and determined that as long
10 as those two ITBs remain in service, we probably
11 need to address them in the NVIC. We have, in
12 the strawman, already crafted some language that
13 eliminates the term dual-mode ITB in favor of
14 just using ATB. One of the other things that
15 we've done -- I mentioned this yesterday; I'll
16 mention it again today -- is we have decided to
17 add a couple of enclosures to the NVIC, one being
18 a history of the development of ATBs, and the
19 second being a list of the different ATB
20 technologies, the PIN technologies.

21 We're going to have those two
22 enclosures. We feel like they're better as an

1 addition, as an addendum to the NVIC, rather than
2 built into the body of the NVIC. We're going to
3 try to keep the NVIC focused on policy. Yes, the
4 consensus of the committee is we want to see this
5 term dual-mode ITB permanently retired.

6 CHAIRMAN HUTTMAN: Thank you, Mr.
7 Crooks, and we look forward to your continued
8 work. I know there's been some frustration, and
9 we'll continue to push with the Coast Guard and
10 with AWO to try to move this process, so you can
11 guys can continue your work. We look forward to
12 that report.

13 MEMBER CROOKS: Yes. The working
14 group has invited myself and my co-chair, Mike
15 Caliendo, to the meeting in November. I plan to
16 attend. Mike, I don't know if you plan to
17 attend. We'll be there to encourage them, with
18 all of our influence, to get this thing wrapped
19 up, so we can get moving.

20 CHAIRMAN HUTTMAN: Okay, thank you,
21 Mr. Crooks.

22 MEMBER CROOKS: All right, thank you

1 all.

2 RECOMMENDATIONS ON ELECTRONIC CHARTING SYSTEMS
3 (ECS) CARRIAGE ON TOWING VESSELS (TASK 15-03)

4 CHAIRMAN HUTTMAN: We're going to be
5 hooking up a laptop computer, rather than trying
6 to show some of the presentations that we had
7 yesterday on -- although very neat technology
8 using an iPhone, we think it's probably more
9 appropriate that we do it with a laptop.

10 At this point, we have Mr. Lagarde,
11 who's going to come up and give us a status
12 report from the subcommittee concerning the
13 recommendations on electronic charting systems
14 carriage on towing vessels, Task No. 15-03.
15 While he gets started, I want to take this
16 opportunity to thank Mr. Walters, our Coast Guard
17 technical representative on this task. I want to
18 extend to him our appreciation. This is one of
19 the few tasks where we have had diligent
20 participation and guidance from our Coast Guard
21 technical representative. We really appreciate
22 that. It tends to make the process work much

1 more efficiently for our subcommittee chairs to
2 do their hard work. We really appreciate that.
3 So thank you for attending both yesterday and
4 today, as well. Thank you very much. With that,
5 we're just about ready to queue up Mr. Lagarde
6 and the presentation. With that, we'll turn it
7 over to Mr. Lagarde.

8 MEMBER LAGARDE: Yesterday, for those
9 of you that were here, I had the report up. I'm
10 going to try to simplify this down a little bit.
11 This PowerPoint's a little easier to look at than
12 the report is, I guess. What I'm going to do is
13 just kind of go over the highlights of the task
14 and kind of explain where we're at with
15 everything.

16 I'm going to start with acronyms
17 because it's kind of been brought to my attention
18 that it's very technical. There's a lot of
19 acronyms; it's kind of hard to follow. I've
20 thrown a couple up here, so we kind of go over
21 these from the beginning. The task is for
22 electronic charting systems. That's where we're

1 starting at. ECS, when I refer to ECS, that's
2 going to be an electronic charting system. ECDIS
3 is an electronic chart display and information
4 system. That's the big daddy, international
5 sailing navigation systems that are approved
6 under the international community rules. IMO,
7 International Maritime Organization.

8 These are the guys that kind of make
9 the rules to the international committee. The
10 IHO is the International Hydrographic
11 Organization. These are the guys that make the
12 rules about charts, so a lot of the stuff that
13 the Army Corps, that NOAA and stuff is going to
14 coordinate with the International Hydrographic
15 Organization.

16 The Radio Technical Committee for
17 Maritime, years and years and years and years
18 ago, started as a FACA, an advisory committee.
19 It has morphed into a non-profit group of
20 organizations that put together technical advice
21 on electronic equipment. This works in
22 conjunction with the International

1 Electrotechnical Committee. I'll show you how
2 some of that stuff works because the RTCM is
3 going to put together the requirements for the
4 U.S. flag stuff, but it's mostly based off of the
5 international community stuff. That's some of
6 the acronyms you're going to hear throughout this
7 presentation. Tasking 15-03 was accepted at TSAC
8 fall of last year. When we received the task, it
9 was promulgated by the fact that RTCM had finally
10 come out and put together a set of standards for
11 electronic charting systems.

12 There had been some stuff out there
13 for ECDIS, but there had not been anything out
14 there for electric charting systems. They put
15 that stuff together in 2015. The task group was
16 asked to look at that RTCM document, provide the
17 Coast Guard with some guidance based off that
18 RTCM document.

19 We thought that this was going to be
20 pretty straightforward, that we were going to
21 take the Class A, Class B, Class C, Class D
22 systems that RTCM had described in their

1 document, and that we were just going to
2 basically figure out which vessels these should
3 apply to. We were going to try to figure out
4 what the backup arrangements were going to use.
5 We were trying to make recommendations on how to
6 train for these different systems, what vessels
7 should be waived, and we were going to raise
8 awareness of cybersecurity risks. In the
9 original tasking, as this was going through
10 vetting, cybersecurity was more of a part of it.
11 We kind of recommended that we take a step back
12 on the cybersecurity.

13 We're going to talk about awareness in
14 the task, but there's so many interconnected
15 pieces of electronic equipment on the boat that
16 cybersecurity should be its own ballpark task.
17 There's just too much stuff to cover. If we
18 started handling every cybersecurity issue
19 addressed with ECS and downloading charts and
20 updates and all that stuff, this would've
21 completely gotten bogged down.

22 We were supposed to have a final

1 report to the Coast Guard by spring of 2016, so
2 that they could take our recommendations and
3 prepare the NVIC and get it out the door, so that
4 the NVIC would allow use in carriage of
5 electronic charting systems, to do away with the
6 paper charts. The NVIC popped out the door in
7 February of 2016, before we had a formal report.
8 As we started picking the RTCM standard apart, we
9 realized that the standards that they put forth
10 didn't consider the equipment that was already in
11 use within the industry, widely in use within the
12 industry. It was based off the international
13 standards and, mostly, ECDIS requirements. The
14 RTCM standard that we received -- and this was
15 one of the things was we went to the RTCM website
16 to download the document for the standards.

17 It was \$80 for the copy. When we
18 clicked on the link, we got an old copy. It
19 wasn't the most up-to-date copy, even though the
20 website said it was. We started peeling back the
21 layers. Most of the RTCM 109 document referred
22 back to other documents from the IHO, from IEC,

1 from IMO. It was almost \$4,000 worth of
2 documents you had to download to be able to
3 figure out what the standard was.

4 Because the RTCM 10900.6 document
5 basically said, "Yes, what they said, but," and
6 it added a couple of words. That was kind of
7 where we were struggling with everything. The
8 109 standards didn't really describe any piece of
9 equipment that was out there. They had the Class
10 A/Class B -- I'm going to show those on the next
11 slide -- but there was really nothing on the
12 market that we could use to satisfy the
13 requirements that they published. The standards
14 that we had for the 109 stuff, a lot of it had to
15 do with hardware, not what was showing up on the
16 screen, not the charts, not how the navigation
17 equipment plugged in. A lot of it had to do with
18 the hardware you were looking at the system on.

19 Again, the largest majority of the
20 systems in the industry were not considered.
21 When we looked at the classes of systems in the
22 109 paper and realized that the stuff that

1 they're describing doesn't exist, and the stuff
2 that exists doesn't meet what they're describing,
3 we realized that this wasn't going to be a
4 shoe-in, we were just going to figure out which
5 ones fit in what slots, and we were going to hand
6 this to them in the spring.

7 We kind of went back to the drawing
8 board and worked with the Coast Guard to kick the
9 due date on this back to the fall, so we can get
10 a little bit more time to wrap our heads around
11 the problem. We got the extension, and we were
12 also asked to take a look at the NVIC and see if
13 -- with the new NVIC coming out, how did that
14 affect everything? Again, NVIC 01-16 was
15 originally intended to allow the use of
16 electronic charts. The tasking of the committee
17 was to provide recommendations on a requirement
18 to carry this stuff. The NVIC was designed to
19 allow carriage of the stuff. But the NVIC did
20 kind of confuse everybody when we started
21 realizing that it really didn't fix anything.

22 It just kind of confused everybody a

1 little bit more. There's a couple of things
2 we're looking at. The subcommittee really got
3 down into two problems that really presented
4 itself. The first thing was chart equivalency.
5 So 01-16 was designed to provide chart
6 equivalency. What do you need to do to meet the
7 chart carriage requirements?

8 The problem was all the extra stuff
9 that goes into the 109 requirements, everything
10 else that goes into the ECS requirements goes way
11 above and beyond the chart carriage. The chart
12 only needs to do four things, pretty much,
13 according to regulation. It needs to be for the
14 appropriate area and produced by a government
15 organization, large enough scale and detail to
16 navigate safely, and it needs to be current
17 corrected or most recent edition, if you're
18 operating on Western Rivers. AIS targets showing
19 up on a piece of paper, all this other eMSI data
20 doesn't show up on a piece of paper, so all this
21 additional equipment and function that goes in
22 with ECS really shoots way above and beyond chart

1 equivalency.

2 Saying that if you have the ECS, you
3 meet the chart carriage requirements seemed like
4 -- let's get to the chart carriage satisfaction,
5 then we'll talk about all the additional stuff we
6 want to see. Again, this gets back to the paper
7 charts being replaced do not display all this
8 other stuff.

9 We're just going way above and beyond.
10 Most recent edition of the Lower Mississippi
11 River Flood Control map, this is one of the
12 problems we get into with the paper charts we're
13 using now versus the electronic charts that are
14 available.

15 The paper charts everybody carries
16 onboard their boats right now, again, Western
17 Rivers, most recent edition. The Army Corps
18 flood control map and navigation maps for the
19 lower Mississippi are from 2007. That's the most
20 recent edition. They don't have any intent on
21 producing another paper copy. They quit
22 producing paper copies in 2014. They're not

1 going to be a new edition of that. The way the
2 reg's written right now, ten years from now, we
3 can conceivably be using a 20-year-old chart on a
4 river that changes course every spring, depending
5 on what the floods do. We've got to fix this.
6 We've got to get away from the paper charts.

7 We have got to get to the electronic
8 charts. The charts that the Corps produces
9 electronically are updated almost weekly. This
10 should provide some sense of urgency to the Corps
11 and the Coast Guard and NOAA. Let's get forward
12 into the new era. Our recommendation from the
13 subcommittee is likely to be that the U.S. Coast
14 Guard consider the desire to replace the paper
15 charts and graduate to a complete navigation
16 system as two separate items.

17 Let's get chart equivalency tackled.
18 Once we get the chart equivalency tackled, which
19 should be able to be handled in policy -- so
20 there's nowhere, anywhere in any regulation, that
21 says the chart must be paper. It says you've got
22 to have charts. They have to be produced by the

1 government for the area, adequate scale,
2 currently corrected. NOAA gets to define what a
3 chart is, by statute. NOAA says the S-57 version
4 of an IHO, International Hydrograph Organization,
5 chart is a chart. We're just getting down into
6 how we view the chart that is really the point of
7 contention. That's what we're talking about.
8 The systems, as described in RTCM 109, paper not
9 available.

10 I'm going to talk a little bit about
11 this because here's where we got to with this.
12 When we realized the RTCM paper really had
13 equipment that we couldn't find, we went to the
14 RTCM. We went to the RTCM meeting in Clearwater,
15 Florida last May. We had a conference call with
16 them, and we've had a couple of communications
17 with them other than that.

18 RTCM committee is made -- mostly made
19 up -- I can't say completely because I really --
20 if you call them, you can't get a list of the
21 members, but it's made up predominantly of
22 manufacturers. The manufacturers that have put

1 out a standard that said what we're using isn't
2 good enough, I'd have to call that into question
3 because the stuff we've been using for 12 years
4 works. It's proven. There's no accident data
5 that goes back to a casualty being a result of an
6 electronic chart being used. The computers,
7 software, and everything that we've put together
8 throughout the industry, whether it's -- there's
9 probably three-four different manufacturers out
10 there.

11 The computer systems that are in place
12 on the boats can range anywhere from a laptop to
13 a computer bought from a retailer, to a computer
14 bought straight from a manufacturer that's
15 custom-built for the application. There's a wide
16 variety of equipment out there, and it's hard to
17 put your finger straight to a piece of equipment
18 to say this is what everybody's using.

19 But in general, throughout the
20 industry, regardless of who you talk to, whether
21 it be in Houston, St. Louis, East Coast, wherever
22 it's at, everybody acknowledges that the

1 equipment's reliable and it works. Of the four
2 classes of the systems all identified, we found
3 some shortcomings with them all.

4 They had a Class A system which was
5 pretty much an ECDIS, for all practical purposes.
6 Call it what it is. An ECDIS does not have to
7 have an AIS plugged into it. But the Class A,
8 every description of it pretty much falls into an
9 ECDIS. When we're sitting around the table with
10 the RTCM, which is all manufacturers, we asked
11 them, "What piece of equipment is this?" They
12 said, "It's an ECDIS." "Are you going to build
13 one to the Class A standard?" They said, "Why?
14 If you can buy an ECDIS and plug into an AIS into
15 it, why would we develop a new piece of
16 equipment, certify it, and test it?"

17 The Class B systems were pretty much
18 about the same thing. They were right there,
19 exactly, almost, a Class A. Class C systems, we
20 thought originally, in the subcommittee, that the
21 Class C systems would kind of fit our bill. It
22 was quickly pointed out that the hardware

1 standards were what was holding us back. It's
2 not the maps or charts or anything that anybody
3 has a problem with.

4 It's really equipment. The way the
5 standard is written, the equipment has to be
6 purpose built, the software has to be married to
7 the equipment, and the equipment has to be built
8 to a standard for international voyages. It has
9 to withstand salt spray and all kinds of other
10 stuff, which is -- we don't do that. That's kind
11 of the stuff we're fighting with. Then the Class
12 D system really -- from a chart equivalency
13 perspective, we thought that a D would probably
14 make some sense, from chart equivalency. From an
15 electronic chart system, the D did not make as
16 much sense because the D didn't require stuff to
17 be plugged into it. AIS didn't have to plug into
18 it.

19 It didn't have to receive the eMSI
20 data, as described in the RTCM 109 document. But
21 when we get into talking about chart equivalency
22 over here and we're talking about electronic

1 charting systems over here, the D should have
2 some function somewhere. The RTCM put all this
3 effort into describing what a Class D system is,
4 but the RTCM, Coast Guard, and others have said
5 that the D isn't suitable for navigation.

6 If the D wasn't suitable for
7 navigation, the subcommittee wanted to know why
8 we're even talking about it. Why is it on the
9 list? Why does it say, "Class D ECS," if it's
10 not an ECS, and it's not suitable? There's got
11 to be an application somewhere, where this thing
12 fits, even if it's a backup. Because it does put
13 your position on a map, shows your position in
14 relation to other stuff, and shows your course
15 and speed. This is a -- IHO 66 document explains
16 that an ECS can be a simple hand-held instrument,
17 GPS-enabled, that displays a chart. There's a
18 precedent; there's a description in there for
19 that. We think there's an application. Everyone
20 else was chucking the D out the window.

21 The subcommittee feels the D needs to
22 stay on the list somewhere, for something. In

1 the void of regulation -- the U.S. Coast Guard
2 Reauthorization Act of 2004 required the Coast
3 Guard to put together rules explaining ECS
4 requirements by 2007. I was building boats in
5 2007. I had to make a choice on wheelhouse
6 equipment. I'm digging through all kinds of
7 stuff, trying to figure out where this
8 regulation's at, and I couldn't find it because
9 it wasn't there.

10 The Coast Guard was waiting on RTCM to
11 publish the standard, so it just got pushed back.
12 Need is the mother of invention. We have this
13 huge hole. We have a lack of guidance. We have
14 a lack of regulation. But we still have a need
15 that needs to be filled. Manufacturers, the
16 towing community stepped up, they got together.
17 They devised a system of equipment that works.
18 Now, it's been through many iterations. Just to
19 throw a couple names out there, CX, CNS, Captain
20 Voyager, Rose Point, and not to endorse any one
21 system, but throughout the industry, Rose Point,
22 through process of elimination, market choice,

1 whatever, has kind of risen to the top and is
2 pretty prevalent throughout the industry.

3 It meets all the functional
4 requirements that are described in the RTCM
5 document. The only thing, again, we're hung up
6 on is the hardware. The bulk of the industry
7 already has all this stuff out there. The guys
8 are trained on it. Whether you acknowledge it as
9 a primary navigation device or don't acknowledge
10 it as a primary navigation device, it's sitting
11 on the dash of almost every towboat I've ever
12 been on.

13 When the guys are navigating, that's
14 what they look at. There's a set of paper charts
15 on the boat because they have to have a set of
16 paper charts on the boat. But when it comes to
17 making a decision or trying to evaluate some
18 passing arrangements, they're not grabbing a
19 piece of paper and looking at that to figure out
20 what's going on. They're looking at an
21 electronic chart system that's sitting on the
22 dash. These things are in use. They've been in

1 use for over ten years. So again, in here, the
2 manufacturers that manufacturer the RTCM-class
3 equipment are looking at a market that's already
4 saturated with equipment.

5 They're not going to develop equipment
6 and test equipment to meet the RTCM standard for
7 a market that's already saturated and they're not
8 going to sell anything into, unless the Coast
9 Guard says to. Now, if the Coast Guard comes
10 back and says this is the only thing available,
11 then we've got this huge lag between the
12 equipment we've got available today and
13 development, testing, and certifications of
14 systems years down the road, if that makes sense
15 to everybody.

16 So they haven't done anything with
17 this. The other thing that comes back into the
18 task statement was what systems are required on
19 which vessels? The subcommittee comes down to
20 really, there's two ways to look at this.
21 There's boats that plot courses, and there's
22 boats that don't plot courses. The boats that

1 plot courses offshore or may plot courses
2 offshore, where you've got an ocean of water or
3 gulf of water, bay of water, whatever you want to
4 call it, where you can't see the underwater
5 hazards. If you lose your navigation system,
6 you've got to look around, and you've got to
7 figure out where you're at, get a position fix,
8 and figure out where you are relative to the
9 dangers.

10 On boats that operate on rivers and
11 canals, you can see the bank. If the system
12 fails, you stop. It's not -- again, I'll go back
13 to Z. David's quote last week, "People don't get
14 lost at river, they get lost at sea." When we
15 talk about backup arrangements or what systems
16 should be used where, there's a different level
17 of risk on rivers than there are in open water.

18 The equipment that's out there now is
19 proven to be reliable. We think the backup
20 battery arrangements that are out there are
21 reasonable. Everybody, whether you're using a
22 laptop, or you're using an iPad and it's plugged

1 into the wall, or you're using the desktop with
2 the APC or APU backup battery, everybody's pretty
3 much got that already, so we didn't think that
4 was out of whack. The use of high-quality
5 components seemed to be reasonable. Now, there
6 was arguments made in the RTCM discussions about,
7 "I don't want a guy going to Wal-Mart and buying
8 a laptop off the shelf, putting it on a boat, and
9 navigating with it." The question the
10 subcommittee had for them was, "If it works, what
11 difference does it make where it came from?"

12 We think that the manufacturer of the
13 software has system requirements. They tell you
14 how much memory it needs to have. They give you
15 a list of stuff that it needs to be able to do to
16 perform that function. The backup arrangements
17 should be addressed in its own safety management
18 system and applicable to the route.

19 If you're operating in a place where
20 failure of the ECS is critical, or your
21 electronic chart is critical, then you should
22 have a backup computer in some way, shape, or

1 form, whether it's a Wal-Mart computer that meets
2 the requirements of the manufacturer or it comes
3 straight, purpose built, from some guys out in
4 Silicon Valley. So long as it meets the
5 requirement to run the system, and it is running
6 the system, it should be acceptable. Redundant
7 systems are reasonable. The industry-promulgated
8 solution to this hole in electronic navigation,
9 the manufacturers that pop up to the top of the
10 list provide two licenses per boat. If you have
11 a system on a boat, you pay for the license to
12 run the system, you automatically get the right
13 to put it on two computers on that one vessel.

14 When we're talking about backup
15 arrangements, regardless of how fancy the initial
16 computer setup you've got is, whether you spend
17 \$500 on that computer or you spend \$3,000 on that
18 computer to hook it up, for \$300, you can get a
19 computer to run as a backup. We go back to some
20 other issues, where the offshore community SOLAS
21 vessels have the authority to run paper charts as
22 backup.

1 The subcommittee feels that should be
2 an option somewhere on the table. If you wanted
3 to actually maintain the paper charts, as hard as
4 that is, it should be an option, but we don't
5 think it's the best option. The reason being is
6 because it defeats the whole purpose of what the
7 Coast Guard's trying to accomplish with eNav,
8 which is being able to view eMSI data, being able
9 to overlay your AIS data and everything on your
10 charts. We think that if you're going to do it,
11 you should be able to provide for the backup, but
12 again, it's on rivers, where you're not going to
13 get lost. Your system goes down, you should be
14 able to just stop. To touch on that, the RTCM
15 requirements in the NVIC require backup
16 arrangements. When you're on a towing vessel,
17 you've got to have one searchlight; you've got to
18 have one radar; you've got to have one AIS;
19 you've got to have one GPS, all the stuff that
20 feeds into your ECS.

21 Even if you had two completely
22 separate ECSs sitting on the dash, you've got one

1 AIS. If it goes out -- and it's not a no-sail
2 item. If it goes out, you call the Coast Guard,
3 "My AIS went out," get an order to proceed, but
4 then nothing's feeding in either ECS, regardless.
5 We were wondering why there was such a hard
6 stance taken on the backup arrangements for the
7 ECS, for this purpose, by right now, you're not
8 even allowed to use it.

9 If it goes out, it's not really a
10 problem. Again, there's going to be situations
11 where a backup shouldn't be mandatory. The
12 backup should be something that we take a look
13 at. This is, again, the stuff that you don't
14 have to have two of on a boat to operate. Paper
15 charts being as an acceptable backup to ECDIS --
16 again, they weren't really described in the RTCM
17 document for the ECSSs. They wanted a pair of
18 ECSSs, didn't make a whole lot of sense. We're
19 going to talk a little bit about chart keeping.

20 We, as a company, probably go through
21 about \$3,000 worth of charts a year on a boat
22 operating between Houston and Louisville,

1 Kentucky. That's the cost of the ECS, honestly.
2 The quicker we can get this approved as chart
3 carriage, then the better off we are. Training
4 requirements -- we came to training requirements
5 on stuff. That was one of the things we were
6 asked to look at. MERPAC was also tasked with
7 the same thing.

8 It's one of the little hiccups we had
9 because MERPAC was tasked on looking at training
10 requirements under the RTCM 109 guidance for
11 Class A, Class B, Class C, Class D systems. When
12 we come back to talking about a software-based --
13 a platform independent software-based system was
14 how the international committee at the eNav
15 conference described it and endorsed. They said,
16 "We're looking at training requirements that were
17 not described in the MERPAC Task 92 statements."
18 What we're also going to recommend in our report
19 is that the training for the software-based
20 system and the Class D system, which was kicked
21 out of the MERPAC report, follow the MERPAC
22 guidance, which is basically for companies to do

1 in-house training, proficiency-based training,
2 certificated or record the training in some way,
3 and if an auditor or Coast Guard investigator,
4 something, gets on the boat, be able to produce
5 records of that training and proficiency.

6 We thought that kind of makes sense.
7 We couldn't just swallow -- wholeheartedly say,
8 "What MERPAC said," so we've added a component in
9 there for the software-based system, and we've
10 added a component in there for the Class D
11 system, where it applies. The ECDIS system for
12 the Class A systems made complete sense under the
13 MERPAC stuff.

14 If the ECDIS is the Class A,
15 apples/oranges, whatever you want to call them,
16 then that made sense. From the training aspect,
17 we felt -- what we wanted to avoid was the
18 catch-22 we've been in with the radar training.
19 Every five years, I've got to go recertify for a
20 radar class, and I have to demonstrate
21 proficiency in a skill which I'll never use on a
22 boat. I've got to do this every five years.

1 It's not applicable to what the inland community
2 does. It may be applicable to the offshore
3 community, but the bulk of the mariners are on
4 the Western Rivers and the Inland Canal. Because
5 of regulation, we go do this.

6 We go through the motions. You study
7 right before you go take your exam, and then you
8 put it on a shelf for five years because we don't
9 use it. We didn't want that to become the same
10 thing with the ECDIS. Regardless of whether you
11 run a Rose Point or a SEAC or a CNS or whatever
12 you're going to run on your boat, it needs to be
13 applicable to the system you're using.

14 You need to be able to use that
15 system, and you've got to demonstrate
16 proficiency. You're not going to do that in a
17 classroom once every five years. The towing
18 vessels operate in limited local areas. I'm
19 going to get back into -- we were also asked to
20 provide some guidance on which vessels should be
21 waived from ECS carriage requirements.
22 Everybody's still got some charting requirement

1 that they need to meet. Whether you carry paper
2 charts under 33 C.F.R. 164, or electronic chart
3 over whatever we come out of this task with,
4 there's waiver parameters in place.

5 In 33 164.70, it describes that
6 vessels operating in a limited geographic area,
7 assistance towing vessels, and other vessels that
8 the OCMI deems so are exempt from certain chart
9 carriage requirements under 164.72. We figured
10 that same stuff should apply -- the limited local
11 area, limited geographic, however you want to
12 break it down on the towing vessels.

13 We think that really needs to fall
14 into the same breakdown that they use for the
15 limited local area licensing. AIS exemptions
16 cover one nautical mile up and down river, which
17 is too tight to make any sense for navigation
18 within a fleet.

19 Most of the fleets on the lower
20 Mississippi River and a lot of the ones up on the
21 Ohio River spread out over miles, and the boats
22 just operate within those areas. They may go a

1 mile or two upriver, go to a dock, drop a barge
2 off, and come back. They're not going to get
3 lost in that stretch. They've still got to carry
4 an AIS, which is telling everyone around them
5 where they are, who they are, what they're doing.
6 They've still got to carry that equipment, but
7 whether that guy carries an ECS on that boat or
8 not is really not fundamentally important. We
9 think the local OCMI should define what those
10 areas are based off of traffic.

11 Could be different in Houston if
12 you're running up and down through there. The
13 AIS projection on the screen may make a little
14 bit more sense. But in general, we think the
15 OCMI should decide what areas are "limited local
16 areas". The assistance towing guys have been
17 excepted from the Subchapter M requirements.

18 There is an exemption for them for
19 certain chart carriage requirements under .72, in
20 33 C.F.R. 164, and their wheelhouses are tiny, in
21 most cases. We've got to take a look at what
22 makes sense for those boats. I'm pretty sure

1 they know where the shoals are because they're
2 going to drag people off of them. Let's take a
3 look at that as it makes sense. Voyage data
4 recorders; here's another one. On the RTCM Class
5 A and Class B systems, there's a voyage data
6 requirement, not really described on what needs
7 to be captured and how long it needs to be
8 captured for. C doesn't have that. The bulk of
9 the towing industry that's operating right now on
10 the software-based systems have it. We were kind
11 of expecting more of an argument within the
12 subcommittee on voyage data recorders versus not
13 voyage data recorders.

14 Honestly, nobody really had a problem
15 with it because the bulk of the equipment in
16 place does it. There's not a lot of guidance on
17 what it needs to be able to do. The argument by
18 the Coast Guard that the C carriage requirement
19 under RTCM needed to have the voyage data
20 recorders kind of centered around casualty data,
21 on being able to turn over your charts, with your
22 plot, showing your little track.

1 The subcommittee looked at this, and
2 we kicked it around, and we read the regulations.
3 We picked them apart, and we honestly couldn't
4 find anywhere where it specifically said that.
5 It's just an interpretation. When we come back
6 to our requirement to carry a voyage data
7 recorder -- function within the electronic
8 charting system, we think that should be a
9 "should", and not a "must". We think it's
10 admirable to have it, but we don't think it
11 should be required. The subcommittee's further
12 going to recommend that if the Coast Guard's
13 interested in voyage data recorders, then that
14 should be a spin-off tasking to decide the dos
15 and don'ts and how much data to record, what data
16 needs to be recorded, the format in which that's
17 turned over.

18 We think that needs to be its own
19 thing. Again, the Rose Point systems prevalently
20 in use throughout the industry do it, so we're
21 not as hung up on that as possible. You don't
22 want to write a hard requirement in there because

1 there's systems out there that may not.

2 Subcommittee members are eager to adapt a process
3 to transition from paper charts to electronic
4 charts.

5 The Coast Guard needs to be make this
6 happen. It needs to be sooner, rather than
7 later. Again, the paper charts are sitting in
8 the back of the wheelhouse, in many cases. The
9 guys are using the ECS. They've been using them
10 for ten years. Let's call it what it is. It
11 meets the chart carriage requirements, as
12 described by NOAA, who gets to decide what a
13 chart is. If it's faithfully reproducing the
14 S-57 chart, we need to just go ahead and swallow
15 that pill and get past it. The paper charts have
16 to be currently correct or the most recent
17 editions. We're either going to be using the
18 ten-year-old chart that isn't corrected because
19 it's legal, or they're going to be trying to make
20 corrections to paper charts.

21 It's nearly impossible to do on a
22 Western Rivers towboat. Policy Letter 10-05 says

1 you can carry all your nautical publications
2 electronically, except your Rules of the Road and
3 your chart. Nowhere in any regulation where
4 you're required to the stuff does it say you've
5 got to carry a paper copy. It just says it's
6 policy. It's not regulation.

7 When you take all these electronic
8 nautical publications and you sit down with all
9 the stuff on a computer screen and you're trying
10 to mark a chart up to make sure it's kept up to
11 date, and you have 20,000 mariners out there
12 doing it differently -- they're trying to do it
13 the same way, but I'm sure that mark doesn't end
14 up in exactly the same spot on every chart.
15 Wouldn't it be better if we used the system that
16 we have now, and once a week, the system went and
17 updated the charts and everybody had the same
18 mark on their chart? It would make a whole lot
19 more sense. The technology's already there. All
20 we have to do is embrace it.

21 The integrations of the GPS, which is
22 your electronic position fixing advice, your

1 automatic identification, and your eMSI data,
2 which is what we're trying to get to to begin
3 with, being projected on the chart, the systems
4 that are out there now do it. They already
5 receive this information. They already project
6 it on the screen. It's already there. The
7 technology exists. All we're arguing over is the
8 equipment.

9 If we prolong this transition over to
10 these electronic charting systems, then all of
11 the work that the Coast Guard's working on with
12 synthetic buoys and eMSI data and all that stuff,
13 while it's available and you're working on it and
14 you want that information to get to the mariner,
15 you're also telling them that you can't use that
16 for navigation, for primary navigation. We've
17 got to get past this. Again, two steps,
18 equivalency, then full system integration. Adopt
19 what we've got now, then we'll work out the
20 details. The RTCM guidelines, where they come
21 out -- the Coast Guard's been using RTCM
22 guidelines for decades. It made sense in some

1 instances. The RTCM guidance came out, said this
2 is what an AIS is, and then later on, you all
3 told us to go buy AISs.

4 We said, "Okay, we'll buy that one
5 because they built it." This is one of those
6 situations where you had an opportunity to tell
7 us what we needed to buy before we bought it.
8 Now, 12 years later, we've already got the
9 equipment. Now you're telling us we should have
10 bought this ten years ago, even though it doesn't
11 exist. That's kind of where we're at.

12 The risk-based requirements should
13 take into account the areas of operations.
14 Backup carriage and waiver considerations should
15 be risk based and sensible. Only make them carry
16 a backup if the backup is going to add value to
17 the situation. The backup should be not
18 necessarily equal to -- if you lose a Class C
19 system or software-based system going across the
20 Gulf, or going across, let's say, the Mississippi
21 Sound, and you've got an iPad that can run a D
22 system that basically works like the navigation

1 system in your car -- it'll tell you where you're
2 at, where you're going, and where the dangers are
3 -- and you can get from Point A to Point B -- the
4 only thing it doesn't show you is all the other
5 targets, which you can see. There's only one
6 direction they're going to be.

7 It's on a reciprocal course on these
8 canals -- then that should be acceptable. I
9 actually put this presentation together for the
10 eNav conference last week, which I'm going to
11 touch base on that a little bit, too. After all
12 the discussions with the RTCM 109 committee,
13 where RTCM 109 committee acknowledged that they
14 did not consider our equipment when they put
15 together these standards, we had some conference
16 calls.

17 They said, "We'll talk about amending
18 the standard to include your equipment." About
19 two weeks ago, they came back and said, "No,
20 we're not going to change our standard. You're
21 just going to have to deal with our stuff."
22 Again, the manufacturers are telling us that

1 they're not going to work with the stuff we
2 already bought. They want us to go buy new
3 stuff. It doesn't make any sense. We got to the
4 eNav conference, which is the international
5 community. The guys in the Netherlands and the
6 guys in Denmark operating on the Rhine River and
7 the inland waters over there have what they call
8 an ECDIS light, which is basically what we've
9 got. They go buy a laptop.

10 They put the nav software on it. They
11 put the pilot plug into it to feed the AIS and
12 GPS data into it, and they navigate off these
13 things. The guys in the Netherlands, it's iPads
14 sitting on the dash. That's what the pilots are
15 operating on over there. It's not like there's
16 no precedent in the international community,
17 regardless of what the RTCM is saying or the
18 international electric technical committee's
19 saying.

20 There's a precedent for the stuff out
21 there. A lot of the foreign European communities
22 were in support of what we've got. Again, they

1 came up with the phrase platform independent
2 software-based system. It means user gets to go
3 buy what he wants. The software's not attached
4 to the equipment. We get to go choose it, put it
5 together. So long as it works, it's good. There
6 were certain markets on the other side of the
7 world that were kind of vehemently opposed to
8 seeing the United States develop a software-based
9 system. I'm not going to go into too much
10 detail, but where the equipment's made -- but
11 they have fishing boats in their coastal waters
12 not having ECS. Again, it's not a domestic
13 issue.

14 The argument came down to should the
15 software-based systems comply with an
16 international standard? But we ended up settling
17 on a recommendation from the eNav conference that
18 the systems should be compatible with the
19 international standards. It should take into
20 account the IHO guidelines for display. The
21 systems should talk to one another, which they do
22 through the AISS.

1 Our AIS broadcasts stuff in
2 international format. Their AIS broadcasts in
3 international format. There shouldn't be any
4 conflict there. What happens to the electrons
5 once they get inside the wheelhouse should fall
6 into a whole different realm. Again, we want to
7 work on doing -- our final report is going to put
8 together some functional requirements of the
9 systems for chart equivalency. This is the stuff
10 it should do, must do, or may do, depending on
11 chart equivalency. Then we've got a separate set
12 of functional requirements based off of ECS
13 requirement, which is all the integration of the
14 different navigational functions. There's going
15 to be different sets of must, should, and may for
16 those systems.

17 That's in the final report. We're
18 less concerned -- this subcommittee is less
19 concerned with how the magic happens. We're more
20 concerned with what magic comes out of the box
21 and helps us navigate the boats differently. I'm
22 going to back into -- all wheelhouses are not

1 created the same, so you can't just have a
2 one-size-fits-all approach to putting the staff
3 in the wheelhouse.

4 You'll see one of the assistance
5 towing boat wheelhouses up on the left-hand side.
6 You're not going to cram another screen in there.
7 You're not going to put a mandatory piece of
8 equipment up there. It's just not going to fit.
9 The lower left-hand corner, you'll see the
10 wheelhouse from one of our boats operating on the
11 canal. If this ECS goes off, I don't think he's
12 going to be lost. It's pretty much a bank on one
13 side, and there's a bank on the other side. But
14 any more screens in there, I'm going to start
15 losing windows. We need to take a look at that.
16 When you talk about backup arrangements, I can't
17 put additional screens in there. I should have a
18 way to swap one screen over or have some laptop
19 or something I can replace something with.

20 That's a different consideration.
21 That lower right-hand corner's one of our bigger
22 boats. There's plenty of room on that dash.

1 That's one of those situations where we're not
2 required to carry two radars, but we do because
3 it makes sense for us. I have options on those
4 boats. All routes, all wheelhouses are not
5 equal.

6 That's pretty much what I have for
7 now. The status of the report right now, I've
8 got it about as far as I can run it to ground.
9 The RTCM stuff, we can't use it as it is, or
10 shouldn't use it as it is, because the equipment
11 prevalent throughout the industry is already
12 there. If we take all the equipment that we've
13 got and we walk away from it, then we've got to
14 re-equip 6,000 towing vessels and retrain 20,000
15 mariners on new equipment. That's not adding one
16 iota of safety to inland nav, on top of the fact
17 that the lag between getting the equipment
18 designed and approved and certified, prior to
19 getting to that point, just doesn't make any
20 sense. We've got a track record 10 to 12 years
21 old with equipment.

22 The equipment surpasses the abilities

1 and requirements of the RTCM guidance, with the
2 exception of the hardware. There's no casualty
3 data that the subcommittee received from the
4 Coast Guard that pointed to a problem with the
5 systems anywhere. Systems are widely in use;
6 they're easily updated; they're user friendly.
7 The guys I know operate in open water routes.

8 I've got friends operating boats in
9 Mexico right now that have ECDIS because they
10 need ECDIS, but they don't trust the ECDIS. They
11 walk to the back of the wheelhouse and look at
12 their Rose Point system to judge whether or not
13 the ECDIS is telling them the truth because it's
14 an easier to system to use. It's more accurate;
15 it's got more features on it. We really need to
16 take this stuff into account. Just because the
17 international community is going off on this
18 tangent, where they want equipment built this way
19 because they know we'll buy it, doesn't mean
20 that's the way we need to go with stuff. I've
21 got the report about as far as I can. I have
22 distributed it to the subcommittee and to the

1 TSAC committee for tweaks, so to speak. What I'm
2 looking for is just structural stuff, pretty
3 much, on the report.

4 Mr. Chairman, I hope to have a final,
5 final, final copy to you on November 4th, or by
6 November 4th, so I can get this albatross that
7 has become this monster off my neck. It has been
8 an adventure in trying to figure out all the ins
9 and outs of international standards and the
10 alphabet soup of acronyms associated with it.

11 It's been rewarding engaging the
12 international community and finding out their
13 views on what's going on. But I'm ready to
14 finalize this as soon as possible, so that the
15 Coast Guard can take this and run with it and,
16 hopefully, adopt the systems that we have now for
17 chart carriage requirements. Then we can work
18 towards the ECS.

19 CHAIRMAN HUTTMAN: Thank you, Mr.
20 Lagarde, for a very comprehensive report, very
21 detailed report yesterday, as well. I'll open
22 the floor, at this point, for any TSAC members

1 who have any questions for Mr. Lagarde. Mr.
2 Vitt.

3 MEMBER VITT: Mr. Lagarde, great
4 report. The voyage data recorder references you
5 made, not in the regulations that I could find.

6 MEMBER LAGARDE: Correct, we couldn't
7 find them either. The standard for the voyage
8 data recorders rests within the RTCM 109 guidance
9 for Class A and Class B systems. There's a
10 requirement. It doesn't describe what that
11 requirement is. It just says they have to have
12 that capability. There's no clear guidance on
13 how much or what needs to be captured in that.

14 The Class C systems, which we feel
15 that the software-based systems that we're using
16 more closely represent, that requirement doesn't
17 exist for those systems in Class C. The Coast
18 Guard asked us to strongly consider requiring
19 that from a casualty investigation standpoint,
20 but there's no regulatory requirement that we
21 could find that would require that voyage data
22 recorder.

1 CHAIRMAN HUTTMAN: Any other
2 questions?

3 MEMBER LAGARDE: Mr. Johansson.

4 CHAIRMAN HUTTMAN: Mr. Johansson.

5 VICE CHAIRMAN JOHANSSON: Great
6 report. I could see your struggles with trying
7 to get all of this put together in regard to the
8 different levels of acceptance of different
9 organizations. In the tasking, also, was not
10 only the acceptance of some sort of electronic
11 charting system, but also the training on that
12 system, too. I don't think it was addressed in
13 here, or did I miss it?

14 MEMBER LAGARDE: You might have missed
15 it. What we said was if you go by the RTCM
16 standards -- MERPAC had a tasking, No. 92, in
17 spring of this year, down in Jacksonville,
18 Florida, to address the training requirements for
19 the class systems, as identified in NVIC 01-16.

20 What they effectively did was talked
21 about the Class A systems as being almost
22 equivalent to ECDIS and should follow SOLAS

1 training on ECDIS. They talked about the Class B
2 and the Class C systems being in-house training
3 for the companies, proficiency based, and be able
4 to document that proficiency-based training and
5 evaluation somehow in house. The Class D
6 systems, again, we come back to we kept getting
7 that this isn't suitable for navigation. The
8 15-03 task subcommittee disagrees with that
9 assessment. We think that they fit somewhere in
10 it.

11 In my final report, we're going to go
12 back to the platform independent software-based
13 system training should follow the MERPAC guidance
14 in Task 92 for the B and C systems, and included
15 Class D systems in that recommendation, as well,
16 if the vessel's so equipped. Basically, A will
17 be SOLAS-type ECDIS training. B, C, D, and
18 software-based systems would all be in-house
19 training.

20 VICE CHAIRMAN JOHANSSON: Documented,
21 you said?

22 MEMBER LAGARDE: Yes, sir, proficiency

1 based, documented and certified, available upon
2 request to an investigator or an auditor, as they
3 get onboard a boat. Like all training stuff
4 associated with other safety management systems,
5 we don't think all that stuff needs to be on the
6 boat. We're kind of leaning towards that should
7 be covered in a management audit. Identifying
8 your crew members and all those records are
9 typically kept in the office anyway. Whether or
10 not they want to issue a certificate that the guy
11 can carry or not -- which we already carry some
12 plethora of certificates that are all out of
13 whack, out of date, in different shapes and
14 sizes. I don't want to add anything else for a
15 mariner to forget at home. That doesn't make any
16 sense.

17 CHAIRMAN HUTTMAN: Mr. Myskowski.

18 MEMBER MYSKOWSKI: Yes, just a
19 comment. The Coast Guard investigating the
20 officers in the field have, on more than one
21 occasion, requested data recordings that a Rose
22 Point has in investigating incidents. The IOs

1 are already using that information or asking for
2 it.

3 MEMBER LAGARDE: 46-4.05 Tack 15 says
4 that during a casualty investigation, you have to
5 turn over charts, your logs, other navigational
6 documentation to the Coast Guard. It does not
7 specifically say, anywhere in that regulation,
8 that electronic data recordings -- it doesn't say
9 anything about voyage data. It doesn't say
10 anything about anything other than what's listed
11 there. If you don't have it, there's no
12 requirement for you to be able to get it. If you
13 do have it, I'm sure that there's -- I'm not
14 going to make a legal argument. If you've got
15 it, you probably would be obligated to turn it
16 over. What we're talking about is the obligation
17 to capture that.

18 MEMBER MYSKOWSKI: All right. Just to
19 comments.

20 VICE CHAIRMAN JOHANSSON: One other
21 suggestion is where you've broken it down to
22 rivers and inland and, of course, the coast, I

1 suggest you use the language that we're now going
2 to be using for the LNG, which would break it
3 down to the routes that are specified in
4 Subchapter M.

5 MEMBER LAGARDE: That will be in the
6 final report. Based off the recommendations I
7 got yesterday, we were talking about inland
8 waters versus rivers and canals and all that.
9 Basically, what I went to is rivers and canals,
10 including Western Rivers, as defined in
11 46-136.100, which is the definition of Western
12 Rivers in Subchapter M, which includes the Gulf
13 Intracoastal Canal, if that makes any sense.
14 I've got canals. I broke it down, and I can show
15 that to you guys, if you want to see it.

16 VICE CHAIRMAN JOHANSSON: I could
17 email you what I just pulled out of Subchapter M.
18 It would be easier.

19 MEMBER LAGARDE: That's what I put in
20 there. I used the definition of Western Rivers,
21 as defined in Subchapter M, which includes the
22 Gulf Intracoastal Waterway. I've got the rivers

1 and canals, including Western Rivers. I've got
2 lakes, basins, sounds, coastal waters and oceans,
3 non-SOLAS as a different group, and I've got the
4 limited geographic/limited local area.

5 Again, when we get back into defining
6 routes, throughout all of the different
7 presentations and all the different taskings I've
8 participated in over the years, Coast Guard
9 regulations are all over the book with the
10 different definitions of routes and areas.

11 PARTICIPANT: They are.

12 MEMBER LAGARDE: There's not a lot of
13 clear guidance in any -- across the board that
14 all of this applies under this, or all of this
15 applies under this. It's just kind of depending
16 on what you're talking about. In my final
17 report, I also referenced the fact that they
18 probably need to get to the bottom of that.

19 CHAIRMAN HUTTMAN: Any further
20 questions from TSAC members for Mr. Lagarde? Ms.
21 Terral.

22 MEMBER TERRAL: Just a quick question.

1 Matt, did you consider that they're already using
2 electronic charts in the aviation units in the
3 Coast Guard?

4 MEMBER LAGARDE: When we were looking
5 at the different systems, yes, we did look at the
6 aviation systems. We were talking to the guys at
7 the eNav conference, the guy from the Netherlands
8 actually had a picture of the plane he flew over
9 on. There's two guys sitting in the cockpit of a
10 commercial airliner with iPads sitting on their
11 laps with their voyage data, voyage plan in them.

12 The aviation industry's been using
13 this stuff for years. The guys that fly planes
14 that I know, everything they do, plan, submit,
15 everything is done on an iPad. You know why?
16 Because it's portable. It's reliable, fits up on
17 the dash, so that's what the guys are using.
18 This is the only segment of the transportation
19 industry that's lagging behind on this.

20 CHAIRMAN HUTTMAN: At this point, I
21 have another question. Mr. Abernathy.

22 MR. ABERNATHY: The voyage data

1 recorder, has anybody gone to NTSB to see what
2 they would like to see, or is that opening
3 (Simultaneous speaking)?

4 MEMBER LAGARDE: Which is why I want
5 it to be another task. If we try to tackle every
6 aspect of that within us and it's the same as the
7 cybersecurity. There's a cybersecurity component
8 that goes with this. Again, it's overarching.

9 There's so many different electrical
10 systems on a boat that are connected to the
11 Internet in some way, shape, or form, whether
12 it's vessel computers, your AIS spoofing,
13 whatever you want to call it. There's so much
14 different stuff that that could just eat up
15 everything. The VDR thing, we kind of feel the
16 same way.

17 It's one of those subjects that is on
18 the verge of -- I'm not going to say taboo, but
19 you start to get into privacy and everything
20 else. The question is what makes sense; what
21 doesn't make sense? I think that deserves its
22 own argument, for argument's sake, so that you

1 get the best information and the best minds
2 sitting at the table. I talked to NTSB about
3 some of the stuff. The NTSB was at the meeting
4 last week, talking about exactly the same stuff.
5 He agreed with our arguments for the
6 software-based system because it's proven and
7 it's in effect.

8 It's better than what we're using
9 paper chart wise. The NTSB is on our side with
10 this. The fact that the equipment that the bulk
11 of the community's already using already has a
12 VDR built into it makes sense. Again, if we
13 ratify and accept what we have, then we're
14 already way ahead of the bar.

15 CHAIRMAN HUTTMAN: At this point, if
16 we have no further questions from the TSAC
17 members, we'll open it up to the general public
18 for questions for Mr. Lagarde regarding the
19 electronic charting systems. Mr. DeLoach.

20 MR. DELOACH: Captain Kelly, I'm so
21 happy that you're here today, as the master of
22 the acronym. I'm going to say that one more

1 time, RTCM, because you need to be focusing on
2 that with your group that reviews all of the
3 issues out here. Since 2007, we've been waiting
4 on a standard, and even prior to that, ten years
5 prior to that. We started putting systems
6 together on our systems to use to navigate. We
7 spend tens of thousands of dollars. Here at the
8 eleventh and a half hour, the RTCM committee
9 comes in and makes a recommendation from a bunch
10 of guys who have a -- that are manufacturers of
11 the devices.

12 It's a pay-to-play system for a system
13 that doesn't exist out there, that we have
14 developed in a completely different direction.
15 If you listened to Secretary Jaenichen this
16 morning, he said we're very good at developing --
17 filling holes and developing systems that are
18 very safe and economical and efficient in our
19 industry.

20 But the RTCM has now thrown a wrench
21 into that. I can't stand here and say that they
22 have a conflict of interest, but I can say that

1 they have a pecuniary interest in what they got
2 to design or to recommend on a design. The
3 reason I know that is I heard it last week at
4 this same conference that Matt referred to. It
5 was said multiple times that without our market,
6 without the U.S. fleet of vessels to develop that
7 system that they designed that doesn't -- that
8 they recommend be designed and built for us, they
9 probably wouldn't build it. That tells me it's
10 all about the money with the manufacturers.
11 That's the same guys who sit on the RTCM. I
12 would recommend, No. 1, that you look at the
13 appropriateness of relying on a group that has a
14 special interest in what they're recommending to
15 the Coast Guard for us to use in this country.

16 It goes back to exactly what the
17 secretary said this morning about the guy with
18 the complaint about the ZF units or the Z drive
19 units in this country. His issue is the same.
20 He would love to have an advisory group say all
21 the boats that are going to be built in this
22 country have to have this type of system into it.

1 Well, guess what?

2 They're going to get to sell them.

3 But he has the same problem. He has a poor
4 technical system and a bad business model. We
5 have developed systems in this country that work.
6 So I would recommend that the Coast Guard
7 immediately drop the idea that they need to rely
8 on the RTCM 109 standard and proceed forth with a
9 recommendation that they accept what we have put
10 tens of thousands of dollars into developing.
11 It's a safe, reliable system. Thank you.

12 CHAIRMAN HUTTMAN: Thank you for your
13 comment. Are there any further questions from
14 the general public? Mr. McWhorter.

15 MR. MCWHORTER: Tom McWhorter,
16 actually member of MERPAC. I just kind of want
17 to tack on what the training aspect, what we
18 looked at MERPAC. Matt, you did a great job,
19 your committee, on peeling back the onions.
20 Because we were told why we left D out of there
21 is don't even worry about D, from the Coast
22 Guard, because we don't think it even has a

1 chance to become approved.

2 But if you look at the training
3 elements, there's basically 12, easily could be
4 adopted, I think, right into whether D is a
5 system or not, which then also fits right into
6 Subchapter M on how that training is recorded. I
7 just wanted to make that comment.

8 MEMBER LAGARDE: Again, we didn't want
9 to re-create the whole thing here. The committee
10 members felt that the work of MERPAC was
11 admirable and relevant, so there was no sense in
12 trying to go back across the top of that.
13 Originally, when we first started talking about
14 everything, the ideas that came out of the 15-03
15 committee were almost exactly in line with the
16 ideas that came out of the MERPAC committee.
17 When we really went back and looked at it, we
18 just pulled the 92 report.

19 I've got a copy of it off the Homeport
20 website. When we went back and reviewed it, it's
21 in line with what we're thinking. We just wanted
22 to make sure we captured the stuff that was not

1 identified system wise in the MERPAC report.

2 CHAIRMAN HUTTMAN: Any further
3 questions from the general public regarding Mr.
4 Lagarde's report? I have a couple of process
5 questions, Mr. Lagarde. As the pathway forward,
6 as you stated in your report, a lot of this was
7 in flux up through last week, in terms of the
8 eNav conference and finalizing the report that
9 was first presented for the first time to the
10 full TSAC committee for consideration.

11 At this point, all the members have
12 received a copy of the report. You're looking
13 for feedback back from us no later than November
14 4th, in order to finalize these recommendations
15 and finalize the report. Then at some point in
16 the near future, we would look to host an
17 intercessional meeting, where the committee could
18 accept the report in a final format. Is that
19 your --

20 MEMBER LAGARDE: That is correct,
21 Chairman. My intent is to try to have a
22 finalized report -- again, the substance of the

1 report is pretty much set. I've run this to
2 ground, as far as I can run it to ground, unless
3 something substantially changes.

4 I think we have a clear vision moving
5 forward for the Coast Guard, so we're just
6 getting down to periods and commas in that report
7 to make sure that there's nothing in there that
8 anyone objects to substantially on the TSAC
9 committee, so we can go for approval.

10 I would love to get this done before
11 Thanksgiving, understand if it doesn't, but the
12 sooner we can get this document into the hands of
13 the Coast Guard as an approved report from TSAC,
14 the sooner that we can legitimize the use of the
15 equipment, hopefully, moving forward.

16 CHAIRMAN HUTTMAN: Okay, I understand.
17 I did have one question. I noticed on -- it was
18 a discussion yesterday, but I noticed on the
19 photographs you had of the wheelhouses that in
20 many cases, those pictures also identify a
21 company computer or a computer or dispatching
22 system that may also be on many workboats, as

1 well, in terms of extra monitors and equipment.

2 I think it may be worthwhile for us to
3 consider that as one of the backup options, in
4 the event of a failure of the primary ECS system,
5 that you may be able to use that as an alternate
6 to complete a voyage, until such time as the
7 equipment can be repaired.

8 Very similar to what we do with
9 maintenance and reporting of equipment failures
10 today, a voyage doesn't terminate just because of
11 the loss of marine radar or echo sounding device
12 or any of the other navigation safety equipment,
13 that the mariner can still continue the voyage,
14 maybe use that as a backup, which will prevent us
15 from filling up a wheelhouse, where we want clear
16 view of the outside of the wheelhouse, with
17 additional monitors and equipment.

18 MEMBER LAGARDE: I believe I covered
19 that in the discussion and also in the
20 recommendations. The RTCM requirements for the
21 nav computers require that nothing else can be on
22 the computer. It can't be connected to the

1 Internet. The international community, the way
2 they get new charts into their systems is by
3 getting that stuff onto a thumb drive and
4 plugging the thumb drive into their computer.
5 Someone has to manually go in and update that
6 stuff.

7 The systems that the inland
8 community's using -- I say inland community, but
9 there's coastal guys using these systems, as well
10 -- these systems automatically go once a week and
11 download this stuff straight from NOAA. Not only
12 do they download the charting systems, they
13 automatically download notice to mariners,
14 automatically download any updates to the light
15 list, automatically download any updates to any
16 other nautical publications, store them on a
17 backup drive.

18 From the office, I can go out and look
19 at the entire fleet of boats and see who's out of
20 date, and we can correct that problem. Secondly,
21 the company computer that you speak of, in the
22 Rose Point systems, that computer talks to the

1 Rose Point system, and the Rose Point system
2 talks to the AIS system, so the requirement for
3 the international community for all the systems
4 to be doggedly separated, we think, takes away
5 from the functionality of the system. In the
6 company computers we have, we drop a barge out of
7 our tow -- which you get 40-45 barges, you drop
8 one barge -- it adjust the tow diagram in your
9 AIS -- in your navigational display for your ECS.

10 Rose Point has the capability to tell
11 the AIS what just happened and to modify the tow
12 dimensions accordingly, but the manufacturers of
13 the AISs have put a firewall in there that
14 prohibit the ECSs from letting them know that the
15 tow dimensions have changed.

16 When we go back to the AIS
17 requirements and the AIS programming guide, where
18 there's a desire to have the tow dimensions
19 displayed faithfully, in meters, on a box that
20 was never designed to input this stuff, there's a
21 solution within this ECS that can go fix it, if
22 we can get with the manufacturer and get that

1 fixed. But the ECS manufacturer is hitting a
2 stone wall with the AIS manufacturer, who would
3 rather sell us an ECS.

4 CHAIRMAN HUTTMAN: Understood. Well,
5 thank you. Mr. Crooks has another question.

6 MEMBER CROOKS: Actually, Mr. Chairman
7 -- this is Jerry Crooks, TSAC -- I don't really
8 have a question. It's a point of order. I think
9 we have seen a very thoroughly prepared report.
10 We're down to the commas and periods. I'm just
11 wondering why would we wait any longer to submit
12 this report to the Coast Guard? It seems to me
13 that it's ready for prime time right now.

14 CHAIRMAN HUTTMAN: We have not --
15 obviously, it's the committee's discretion as to
16 how they wish to proceed on that. The issue is
17 normally, we wish to make sure that we have these
18 posted for some period of time for the general
19 public to comment on them, as well.

20 Since the committee had only seen this
21 in final form at our working group yesterday, we
22 think it would be, just for the sake of

1 transparency, valuable for us to publish this for
2 some period of time on Homeport and share it with
3 the public that's been here, that had an
4 opportunity to come and see this, before we make
5 any final -- take any final action by the
6 committee. That's just been our precedent in the
7 past. I leave that, obviously, to the discretion
8 of the committee.

9 MEMBER CROOKS: Thank you. I just
10 want to pass my congratulations to Matt and his
11 subcommittee. They did a really good job on this
12 task. I think that what he said at the outset
13 about initially thinking that this was going to
14 be an easy task, I think a lot of us thought the
15 same way. It certainly turned out to be much
16 more complicated, as it seems it happens very
17 often.

18 CHAIRMAN HUTTMAN: Thank you, Mr.
19 Crooks. Just as another point of order, usually,
20 before TSAC's going to accept a final, in our
21 Federal Register Notice, we normally let the
22 public know ahead of time that we plan to vote to

1 accept a final report, as that becomes part of
2 the agenda, so that the public has a chance to
3 comment on that.

4 I think the pathway moving forward, my
5 recommendation to the committee would be that we
6 continue to proceed with a review of the existing
7 document by members, get feedback back to Mr.
8 Lagarde. Then as soon as possible, we'll
9 schedule with the DFO for an intercessional
10 meeting where, once we've already read the
11 report, we've seen his presentation, it will be
12 very easy for us to move forward and accept that
13 as a final report, and then be able to transmit
14 that on to Admiral Thomas for further action.
15 Thank you, Mr. Lagarde, absolutely fabulous
16 report, very comprehensive. I appreciate your
17 passion that you have exhibited in developing
18 these reports and conclusions and
19 recommendations. Thank you, again, appreciate
20 that.

21 MEMBER LAGARDE: Thank you.

22 CHAIRMAN HUTTMAN: Mr. Lagarde also

1 was able to get us back on our agenda time. This
2 is a very in-depth report. It was very
3 comprehensive. We're within minutes of a break
4 that is necessary for some FACA training for the
5 TSAC members. This is a requirement of the
6 Federal Advisory Committee Act.

7 What we intend to do is the committee
8 will remain here for a training session starting
9 immediately with our FACA representative. That
10 will allow the public an extended lunch period.
11 As currently laid out in our agenda, we are
12 planning to reconvene after lunch, at 1300, with
13 a presentation from Mr. Luke Harden. At this
14 point, we will break for lunch. The committee
15 members will remain here for our FACA training.
16 Thank you.

17 (Whereupon, the above-entitled meeting
18 went off the record at 11:23 a.m. and went back
19 on the record at 1:04 p.m.)

20 CHAIRMAN HUTTMAN: Our DFO kind of
21 tapped the mic. We got you all. We didn't bring
22 our bell or gavel here to ring us back to order,

1 but welcome back from lunch. During our FACA
2 training, we had some lively discussion on the
3 process of reports and how do we act on those?
4 It was brought up at the end of our training that
5 we might wish to reconsider the committee action
6 on the ECS that we were discussing earlier. With
7 that, I'll just ask if there's any further
8 discussion from members or any motions regarding
9 our pathway forward regarding the electronics
10 charting system? Ms. Terral.

11 MEMBER TERRAL: This is Joy Terral.
12 I think I'd like to have a few days to review the
13 document, rather than move forward with it at
14 this time.

15 CHAIRMAN HUTTMAN: What I'm hearing is
16 I have a motion on the floor to continue to --
17 for the committee to work on reviewing the
18 document. Do I have a second on that motion?

19 PARTICIPANT: I'll second that motion,
20 yes.

21 CHAIRMAN HUTTMAN: I have a second on
22 the motion for the committee to continue a

1 further review of Mr. Lagarde's report on the
2 electronic charting system. Any further
3 discussion?

4 MEMBER MYSKOWSKI: Just a question.
5 What's the concern? It seems like it was pretty
6 well covered.

7 CHAIRMAN HUTTMAN: Ms. Terral?
8 (Simultaneous speaking.)

9 CHAIRMAN HUTTMAN: Mr. Kress.

10 MEMBER KRESS: I'm sorry; Steve Kress.
11 I'd like to recover it.

12 CHAIRMAN HUTTMAN: Ms. Terral, it's
13 your motion, so the question directed to the
14 Chair.

15 MEMBER TERRAL: I'd like to review the
16 full document, and I'd like to stiffen up our
17 recommendations just a little bit, to clarify our
18 recommendations just a little bit.

19 CHAIRMAN HUTTMAN: Okay. Mr. Kress,
20 you're recognized. Any other discussion from
21 members? We have a motion on the floor to
22 continue to keep the matter tabled for review,

1 assuming that we would continue on the pathway
2 that we had described previously, before lunch,
3 continue on review, get comments back to Mr.
4 Lagarde.

5 He's looking for a deadline by
6 November 4th to provide comments back, and the
7 committee will move forward, then, to schedule
8 for an intercessional when the report's completed
9 for acceptance by the full committee. We don't
10 have a date on that yet. We'll get comments to
11 Matt and see what he can do to --

12 VICE CHAIRMAN JOHANSSON: The updated
13 report is reflected by the comments that we made
14 today? Eric Johansson; I'm sorry. Thank you,
15 Matt, I'm asking that the updated report,
16 reflective of the routes and all that other
17 stuff, you'll have that to us --

18 MEMBER LAGARDE: Matt Lagarde with
19 TSAC. The copy I sent out last night to the
20 members had the route corrections in it. It had
21 some additional stuff on cybersecurity, and some
22 other comments that were after the conversations

1 yesterday. All the questions that came up during
2 the discussion today, during the presentation,
3 were stuff that had been captured. I didn't hear
4 anything new today, that wasn't discussed
5 yesterday and wound up in the document.

6 The document that you have is the most
7 current copy. Like I said, I ask that I get all
8 updates sent in by the 4th. I'll book the
9 additional, the revised copy, pass that data out
10 to the group, and then we'll schedule the
11 intercessional from there.

12 CHAIRMAN HUTTMAN: For the benefit of
13 the general public, if there's any other comments
14 that you have for the subcommittee on the
15 electronic charting system, we would ask you to
16 get in touch with Mr. Lagarde, or any other
17 issues related to that before we move forward.

18 The motion on the floor has been
19 seconded. At this time, we'll call for a vote to
20 continue to keep that report tabled, working
21 toward a final review of the report. All those
22 in favor, say aye.

1 (Chorus of ayes.)

2 CHAIRMAN HUTTMAN: Any opposed, say
3 nay.

4 (No audible response.)

5 CHAIRMAN HUTTMAN: Hearing none
6 opposed, are there any abstentions?

7 MEMBER LAGARDE: I will abstain from
8 that.

9 CHAIRMAN HUTTMAN: Mr. Lagarde, it's
10 noted that he abstains. With that, we'll
11 continue moving forward for -- Mr. Harden,
12 apologize. We had a little bit of administrative
13 business to get on, but we're pretty much right
14 back on the schedule.

15 At this point, we have a question and
16 answer presentation from the Mariner
17 Credentialing Program and the standup of the
18 Coast Guard Headquarters Office of Merchant
19 Mariner Credentialing. Mr. Luke Harden, I think
20 many of us already know Mr. Harden, and we're
21 very pleased to have you here today.

22 PRESENTATION, QUESTION AND ANSWER ON THE MARINER

1 CREDENTIALING PROGRAM-STAND OF CG HEADQUARTERS

2 OFFICE OF MERCHANT MARINER CREDENTIALING

3 MR. HARDEN: Thank you very much. My
4 name is Luke Harden, as they said, and I'm from
5 the Office of Merchant Mariner Credentialing.
6 This is a new office, as of July 1, 2016,
7 although I'm not sure if that was the official
8 standup date, but that's the date we started
9 working as a full office. As many of you know,
10 I've been involved with the towing industry, at
11 least the regulatory side of it, since 1999, and
12 prior to that as an REC chief in St. Louis,
13 Missouri.

14 In the past, the organizational
15 structure for my office worked under two
16 different directors, under Captain Gifford at
17 5PC, and Mr. Lantz of 5PS. Basically, we had the
18 regulatory side that worked under one director,
19 and the policy and implementation side that
20 worked under another director. This caused some
21 organizational challenges.

22 The office consolidated under one

1 director, currently Mr. Lantz, at 5PS, underneath
2 the admiral. Now we have a single office at
3 Coast Guard Headquarters that deals with
4 credentialing matters. The regulatory and policy
5 group are both working together. Currently,
6 that's under Ms. Medina, who is acting office
7 chief. Here's our rationale. We were looking at
8 giving better customer service because we
9 recognize that there was some disconnect,
10 sometimes, between the regulatory side and the
11 policy side. Also, when you came to me with a
12 question, I would coordinate my answer with the
13 regulatory side. Sometimes, that all worked --
14 it was jumping through hoops to get that done.
15 The other is we're looking at consistency. We're
16 looking at a single director who's dealing with
17 all issues.

18 On the appeal matters, it's the same
19 director who's also working on the information
20 for the National Maritime Center, who's also
21 working on the regulatory issues. Then
22 efficiency, just because we had some duplication

1 at the headquarters level, where I would have
2 people I would send -- for instance, we would
3 send two people to TSAC, one from the regulatory
4 side and one from the policy side.

5 It really made no sense. Although,
6 towards the end, we were saying flip the coin.
7 Who's going to what meetings? We were doing our
8 own efficiency of saying only one of the two
9 offices would be represented, but sometimes that
10 didn't meet the customer's need. Our functions
11 have stayed the same. MERPAC is being run out of
12 MMC-1. They are also the ones responsible for
13 writing the regulations. MMC-2, which is my
14 division, still works on the policy standards and
15 implementation matters. We also deal with
16 appeals, which I'll talk briefly about today just
17 because I get the chance. That division is also
18 the division responsible for the Merchant Mariner
19 Medical Advisory Committee. What we've been
20 working on are -- we're still working on NVICs.

21 We're working on changes to the NVICs,
22 and we work on appeals. The reg shop is working

1 on regs, but you guys have been around long
2 enough, you know we can't talk about regs that
3 are in process, other than what's on the list of
4 regulations. You're aware that we've published
5 24 NVICs for STCW, which shouldn't impact a lot
6 of you all.

7 We also have published NVIC 03-16,
8 which did impact all of you all, and then RFPEW,
9 which, again, is an STCW NVIC that changed. We
10 are looking at doing more changes to the STCW
11 NVICs. I'm not going to talk about that. We're
12 also going to be working on a policy letter for
13 Tankerman PIC for towing vessels. We're also
14 working on revising the guidelines on medical
15 evaluations for mariners. If you have questions
16 on any matters, you can go to either one of those
17 email addresses. The MMC policy is just asking
18 policy questions. That gets to a generalized
19 email mailbox, where anyone can pull it. The
20 STCWASK one is if you have questions on STCW
21 NVICs. Then if you have an application question,
22 a specific question about an individual's

1 application, that goes to the National Maritime
2 Center.

3 If you send it to us, if we smell that
4 it's a specific application, we will ask you to
5 contact the National Maritime Center because it's
6 inappropriate for us to get involved too early in
7 the process. Speaking of the process, we have
8 the appeal process, which hasn't really changed.
9 The only thing that has changed is final agency
10 action.

11 It's going to Mr. Lantz, instead of
12 Captain Gifford. Additionally, now, instead of
13 the appeals going through the National Maritime
14 Center -- in the past, as you'll recall, the
15 application went to the National Maritime Center,
16 reconsideration went to the National Maritime
17 Center, and then appeals would go to the National
18 Maritime Center, and they would package
19 everything up and send to headquarters. Now, the
20 process is the application goes to the National
21 Maritime Center, the reconsideration goes to the
22 National Maritime Center, but the appeal comes

1 directly to Coast Guard Headquarters, then we
2 notify National Maritime Center, who sends us the
3 information or makes sure the information is
4 properly uploaded in the database, so we can pull
5 it down and look at it.

6 We've tried to improve the process,
7 and it actually has shown to save some time that
8 way. As you'll see, you'll see the numbers are
9 coming down. Unfortunately, when you have
10 medical appeals, medical appeals take longer
11 because we, at headquarters, allow the applicants
12 to go back and get additional medical
13 information.

14 So invariably, the doctor at
15 headquarters holds the appeals a little bit
16 longer, although we're working on that, and we're
17 hoping with the new NVIC, that timeline will
18 drive down some. So this basically gives you an
19 idea that approximately 30 to 40 percent of the
20 time, appeals are granted, which says that the
21 rest of the time, they're either denied or other
22 actions are taken on appeals. If you ask me what

1 other outcomes might be, it could be that we say
2 no, you're denied the credential you're seeking,
3 but you're approved for a different credential.
4 That's where we are. I know you guys had lots of
5 questions, so I made a short presentation.

6 CHAIRMAN HUTTMAN: Thank you, Mr.
7 Harden. I'm sure we have some questions. With
8 that, we'll recognize Mr. Guidry.

9 MEMBER GUIDRY: Brian Guidry, TSAC.
10 You briefly mentioned before NVIC you had put
11 away a good part of those found in the websites
12 you gave us, or can you discuss --

13 MR. HARDEN: They're still in
14 development. We've promised when we were going
15 to get them done. Mr. Wells back there is
16 laughing at me because the timeline's being drawn
17 out a little bit because the policy development
18 process, not only do we work on developing it,
19 but then once we get to a certain point, then we
20 have to ask six or seven other offices to give us
21 input. At times, that means you get a couple
22 hundred comments on the NVIC, and then you're

1 trying to -- how do you make it work? Two of the
2 offices we give it to are lawyers, so that means
3 probably half the comments come from the lawyers.
4 Those are harder to resolve than standard
5 questions because they ask questions like should
6 it be vessel or boat? It just takes a longer
7 time. We're in the process -- they're getting
8 close. They've been drafted there. They've been
9 in the review for a while.

10 CHAIRMAN HUTTMAN: Any other questions
11 by members? Mr. Richmond.

12 MEMBER RICHMOND: Ray Richmond, TSAC.
13 You mentioned briefly NVIC 03-16. Can you
14 clarify the grandfathering for what will now be
15 the firefighting requirement?

16 MR. HARDEN: Can I clarify? I thought
17 it was pretty clear in the NVIC. Now, we were
18 having a discussion back in the back there, and
19 it might not be as clear as I thought it was.
20 Basically, if you hold -- if you held master or
21 mate as of 2014, you don't have to get
22 firefighting.

1 If you started towards mate by 2014,
2 then you -- as I recall, you don't have to get
3 firefighting, or if you were transitioning from
4 mate to master as of March 2014, you don't have
5 to do firefighting ever. That's a one-time only
6 training. That being said, I know there's some
7 disagreements because there are some people who
8 say you start towards master your first day on a
9 towboat. I respect the people who tell me that,
10 and I respectfully disagree that when I wrote the
11 regs back in 2001 and established apprentice
12 mate, apprentice mate is the gateway towards
13 mate, or is the gateway towards master towing
14 limit itself.

15 You don't start towards mate or master
16 until you get that apprentice mate. I know
17 there'll be people who disagree, and I respect
18 that. I would refer you to mmcpolicy@uscg.mil if
19 you want to send a question, if you want to send
20 another question on that go ahead.

21 CHAIRMAN HUTTMAN: Mr. Vitt.

22 MEMBER VITT: I'm Mike Vitt, from

1 TSAC. Mr. Harden, nice to see you again.

2 MR. HARDEN: Nice to see you.

3 MEMBER VITT: I've got a question
4 about the same NVIC, nothing to do with
5 firefighting. There are some errors in the TOAR
6 lineup for common elements, specifically Western
7 Rivers, high wind is, I think, missing. Is the
8 high wind requirement inland, but not in the
9 Western Rivers? Anyway, there's an issue there
10 with some of the TOARs presented. Is there some
11 way to fix that? I don't know how you can fix an
12 attachment.

13 MR. HARDEN: All you do is send us an
14 email, let us know what -- identify where you
15 think the errors are, and we'll put it on our
16 list of NVICs to fix. I will apologize. It does
17 take us time to get the changes done to the
18 NVICs. We don't have a lot of people on staff,
19 and we try to focus on appeals because those can
20 impact livelihood.

21 Right now, I have an individual who
22 his sole job is working on revising NVICs or

1 producing policy. It's getting tight enough
2 right now that I'm doing appeals. I'm drafting
3 appeals and drafting policy letters. If you
4 identify it, send it to the MMC policy email
5 address, we'll take that information and start
6 working on it.

7 MEMBER VITT: It's pretty exact, once
8 I get in the sites. It's very obvious.

9 MR. HARDEN: Okay. No, I would
10 appreciate that. That's where -- it's just like
11 we said on all the NVICs we're putting out. Just
12 let us know where you see the errors, and we'll
13 fix them as soon as we can.

14 (Simultaneous speaking.)

15 MEMBER VITT: Actually, Mr. Johansson
16 has the pinpoint, if you wish to look at it
17 later.

18 MR. HARDEN: Okay.

19 MEMBER VITT: The second thing I ask
20 is there were a number of approved courses that
21 are TOARs. G&H Towing has one. Bisso Towboat
22 has one. E.N. Bisso has another. They're listed

1 as approved courses. Recently, we went through
2 an additional approval process from MMC-2, I
3 believe it is. It came back approved, but the
4 verbiage we had requested did not return at all.

5 We had asked for an extension of
6 route, which was apparently granted, at least
7 impliedly so. I'm really reluctant to send a
8 mariner into an area that is done by implication.
9 The geographic boundaries should be specific on a
10 limited license. With that in mind, the letter
11 said basically ask the cognizant OCMI. In this
12 instance, I know there's an OCMI at NMC. Is it
13 the OCMI at NMC? Is it the OCMI in Sector New
14 Orleans? They didn't identify that.

15 MR. HARDEN: That's where -- when it
16 comes to those local limited areas, those are
17 managed, as far as establishing what those local
18 limited areas -- the cognizant, that's the local
19 OCMI who has to deal with that. The NMC, if you
20 look at the regulations, it talks about the NMC
21 has the authorities of an OCMI. That's what it
22 says in the regulations.

1 It does not say the NMC is an OCMI.
2 It's language that only a lawyer could love. I'm
3 not a lawyer. I don't like it at all because it
4 leads to this area of confusion. In this case,
5 while they can -- they have the authority to
6 issue the credentials, which used to be an OCMI
7 function, they still have to work with the local
8 offices on these limited endorsements. They will
9 work with the local sectors.

10 In this case, if they've kicked it
11 back and said you have to get it cleared through
12 the local sector, it sounds like they're asking
13 you to go back to the sector and say can you
14 approve this area, and then get that coordinated
15 back. I respect the fact that you said you don't
16 want to send someone into something based on
17 implication. If you're getting back an approval
18 that you don't agree with, that you think is
19 inconsistent with your application, then you need
20 to ask them to reconsider their decision and say
21 we requested X, Y, and Z. Your approval gave us
22 X and Y. We believe you need to give us Z. You

1 have to basically say please reconsider your
2 decision. That's what you need to do on this
3 case.

4 MEMBER VITT: I hear a two-pronged
5 answer. Get the local OCMI to approve the
6 verbiage?

7 MR. HARDEN: Approve the route.

8 MEMBER VITT: Okay, and then perhaps
9 simultaneously ask MMC-2 to reconsider the
10 wording of their approval --

11 MR. HARDEN: Yes.

12 MEMBER VITT: -- to be a little bit
13 more clear. Right now, it's about as clear as
14 the firefighting one that we just talked about.
15 No, that's clearly not actually --

16 MR. HARDEN: No, you need to actually
17 say -- you need them to reconsider their approval
18 to explain -- to be based on what you've
19 requested, as opposed to what they've granted.
20 They may come back and tell you we didn't grant
21 it. We gave you what you originally had, and
22 we're not granting anything additional until such

1 time as you give us the additional information.
2 That could be what their letter meant. I'm just
3 guessing.

4 MEMBER VITT: I understand. You
5 haven't seen the document, so I recognize that.
6 We added some tasks related to locking. My
7 request had something to do with locking in order
8 to get into a geographical area. I don't know
9 what the answer is. I'll clarify it both ways.
10 Presumably, it'll be faster than the, what, seven
11 or eight months it took to approve a TOAR that
12 was previously approved?

13 MR. HARDEN: I would hope so.

14 MEMBER VITT: Thank you. It's not
15 your fault, I realize. Thank you.

16 CHAIRMAN HUTTMAN: Mr. Caliendo.

17 MEMBER CALIENDO: Mike Caliendo with
18 TSAC. It's good to see you, Luke.

19 MR. HARDEN: Good to see you.

20 MEMBER CALIENDO: I would like to see
21 you at more meetings. My question is based on
22 what I've heard from the Coast Guard at some

1 previous meetings and some of the recent policy
2 letters that have been issued by the Coast Guard,
3 it seems to me that the Coast Guard is beginning
4 to consider ATBs as a unit, as opposed to two
5 separate vessels, for a variety of reasons, which
6 may or may not make sense. However, do you see
7 where the combined tonnage of those units is ever
8 going to be recognized for qualifying service in
9 a way that benefits the mariners?

10 MR. HARDEN: Yes, in part.

11 MEMBER CALIENDO: Please explain.

12 MR. HARDEN: I'm not a lawyer, and I
13 didn't stay at a Choice Hotel or whichever one it
14 is -- Comfort Inn, that's it. However -- Holiday
15 Inn, okay. We are counting time on ATBs. As you
16 look at the service time on ATBs, there are
17 various places in the regulations where we grant
18 some time towards the full unlimited tonnage, but
19 only a portion of it.

20 I think up to 50 percent of the total
21 time will be counted. Then it's also dependent
22 upon what you're seeking. In some cases, it's a

1 two for one credit; in some cases it could be one
2 for one. There's a lot of variables. You have
3 to look at the specific site to see how we're
4 applying it. We're working that way, but until
5 such time -- as you'll recall, ITBs were the only
6 combinations where we gave total credit, and that
7 was because the ITBs were outfitted and manned
8 comparable to a comparable conventional vessel.
9 Because of that, they got full credit. Since
10 there's two ITBs in the United States, those are
11 the only two that get one-for-one credit for all
12 the time. Did that answer your question, Mike?

13 MEMBER CALIENDO: I think so. We
14 haven't seen anything but basically a flat denial
15 of credit for qualifying service on the combined
16 tonnage of the ATBs for the mariners who work for
17 us.

18 MR. HARDEN: Complete denial of it?

19 MEMBER CALIENDO: That's what we've
20 seen on replies from the Coast Guard.

21 MR. HARDEN: Ask for reconsideration.
22 Look at 11-217, I think it is, 211 is the reg

1 site that talks about the sea service that
2 addresses the ATB time.

3 MEMBER CALIENDO: Okay, thank you.

4 MR. HARDEN: 10-232 also has some of
5 that language.

6 CHAIRMAN HUTTMAN: Any further
7 questions for Mr. Harden from TSAC members? I'm
8 going to say -- I have one -- okay, Mr. Lagarde,
9 you're recognized.

10 MEMBER LAGARDE: Matt Lagarde with
11 TSAC. Two things, in particular, that I wanted
12 to address, the difference in description of
13 route with credentials versus the description of
14 route elsewhere in regulations is a recurring
15 problem with almost everything we deal with.

16 Whereas, we talk about Near Coastal,
17 Inland, and Western Rivers in one context, and we
18 talk about lakes, bays, and sounds, oceans, coast
19 wise in other regulations. In particular, there
20 seems to be some breakdown in the definition of
21 Western Rivers between the licensing regs and
22 Subchapter M regulations, where the Western

1 Rivers include the Gulf Intracoastal Waterways.

2 As a mariner, as a company
3 representative, as a TSAC member, I'd like to see
4 the Coast Guard get everything -- let's find a
5 definition for stuff that we can apply across. I
6 know it's a regulatory issue, but I just want you
7 guys to be aware of it.

8 MR. HARDEN: In regard to the
9 definition of Western Rivers, that one's
10 something I would have to ask the drafters of
11 Subchapter M. I would think we would use the
12 same definition.

13 MEMBER LAGARDE: No, which brings us
14 to a problem. The equipment is certified to run
15 on a Western River, but the licensing is not.
16 Another thing in Subchapter M that came up, too,
17 was the local OCMI ability to designate waterways
18 within an area.

19 We have an area in New Orleans, the
20 Harvey Canal and Algiers Canals, in particular,
21 that are inland waterways for the purpose of
22 definition under waterways, but in reality, they

1 meet the criteria for a Western River.

2 Subchapter M gives the local OCMI the authority
3 to designate those waterways. The question is
4 from a credentialing standpoint, how does that
5 play out? Can a Western Rivers mariner operate
6 on that portion of inland waterway if the local
7 OCMI designates it as such?

8 MR. HARDEN: At this time, I would not
9 like to answer that just because I don't have --
10 I would want to do some research before I
11 answered that. On face value, I would say if you
12 have a Western Rivers and you're operating on
13 Great Lakes Inland area, in an area that's
14 considered Great Lakes and Inland, then I would
15 say if I were an IO, I would probably at least
16 start investigating. Whether I would cite that
17 operator or not, I don't know. I haven't been an
18 IO since the '80s. I would think you should have
19 a credential for the route you're on.

20 The only area that's really -- there's
21 exceptions to the rules are in the pilotage
22 waters of the lower Mississippi River. Then D-9

1 has some up in the rivers going into the Great
2 Lakes. There's some exceptions to the rules up
3 there.

4 CHAIRMAN HUTTMAN: Okay, now it's time
5 for the chairman's question. I have two, and
6 that's a perfect dovetail off of Mr. Lagarde's.
7 There is a continuing problem with identifying
8 the Gulf of Mexico as a water that is creditable
9 for sea service as either ocean or coastwise
10 service once you depart the jetties.

11 Operating inside, shoreward of the
12 boundary line, where our mariners get letters
13 that basically say you're operating outside of
14 the scope of your license with the Great Lakes
15 and Inland route because you're on what would be
16 considered coastwise service for the purposes of
17 license time. There was a Policy Letter 12-01
18 many years ago that dealt with credit for the
19 Gulf of Mexico for ocean or coastwise service. A
20 mariner may be credentialed with an inland
21 license, operate anywhere between Brownsville and
22 Key West, Florida, which, in many other people's

1 eyes, would be considered a coastwise type
2 voyage, but for the legal purposes of
3 credentialing, they are on an inland license.

4 We routinely, when we submit sea
5 service letters, get that the mariner was
6 operating outside the scope of their license when
7 operating on inland waters which are also
8 creditable for sea service purposes for Near
9 Coastal or oceans. How do we resolve that
10 problem with the understanding of service on
11 those routes?

12 MR. HARDEN: Send me a copy of the
13 letter you get. Send me the copy of the sea
14 service letter you send them. Because it all
15 comes down to what's the definition of inland
16 waters. As most people know, the inland waters
17 for the Gulf of Mexico extend out 12 miles,
18 except off of certain portions of Florida, where
19 it can be as much as 25 miles. New England has
20 some of the same situations, where there's
21 waterways that the inland waters extend out past
22 what would be traditionally considered the

1 boundary line. So unless people know that, then
2 it's likely the evaluators reviewing the service
3 may pick it up and say this looks like they're
4 operating beyond the boundary line.

5 Just let me know when you run into
6 those problems. I'll coordinate with my
7 counterparts at the National Maritime Center and
8 say -- they'll do training. They do a lot of
9 training to make sure their evaluators understand
10 things. This may be one where they've just
11 missed it.

12 CHAIRMAN HUTTMAN: In this case, it's
13 inverse. It's services inside of the boundary
14 line, which means we're in inland waters, but by
15 policy, the Coast Guard has said that water
16 operates like a Near Coastal route, so we want to
17 give you credit, if you operate in that area, for
18 some coastwise type service.

19 It complicates the issue of service
20 time for completing the tour for Near Coastal
21 oceans tours or vice versa. If a mariner can't
22 get credit out there, you're not able to move

1 that process along (Simultaneous speaking).

2 MR. HARDEN: So you're looking to get
3 credit, also, for the Near Coastal, as well?

4 CHAIRMAN HUTTMAN: As the policy
5 letter has -- since 12-01 has been out
6 authorizing that.

7 MR. HARDEN: Send me an email on
8 mmcpolicy@uscg.mil.

9 CHAIRMAN HUTTMAN: mmcpolicy letter.

10 MR. HARDEN: Who signed the policy
11 letter?

12 CHAIRMAN HUTTMAN: Ernie.

13 MR. HARDEN: Okay.

14 CHAIRMAN HUTTMAN: Yes, were outside
15 the scope. My second question -- I have a
16 two-pronged question. There's a couple
17 two-pronged questions. The new NVIC 03-16
18 regarding the TOAR lists a number of new items
19 that may restrict mariner service or a restricted
20 ability to serve -- if they don't complete the
21 entire TOAR, they will have a restriction on
22 their license.

1 But in many cases, a mariner need not,
2 according to the existing law, turn in a TOAR,
3 and they maybe carry that with creditable sea
4 service. We're now forcing companies to be,
5 basically, TOAR examiners. You have to go
6 through and say this mariner is qualified on an
7 inland water, but may not do downstreaming
8 operations, or may not push a barge ahead. It
9 seems as though we're continuing to complicate
10 the issue associated with the licensing and
11 manning of towing vessel officers by adding new
12 tasks to the TOAR, which now will result in
13 restrictions to mariners' ability to operate.

14 There are numerous areas that are
15 inland waters, where there are no downstreaming
16 operations undertaken, Galveston Bay, etc.,
17 except where you're not conducting downstreaming,
18 which would be traditionally recognized under
19 Subchapter M or on the Western Rivers.

20 Now, a mariner will get a restricted
21 license because he didn't do a downstreaming
22 operation, and he's been operating in those

1 waters for an entire career. Now we'll say you
2 can't operate in a downstreaming environment, or
3 you can't go through a lock. What's our method
4 to go back to this TOAR again? Is this a task
5 that TSAC should comment back on to the Coast
6 Guard, in terms of those issues relating to
7 service on towing vessel operators?

8 MR. HARDEN: Yes, subject to the DFO
9 and ADFO.

10 CHAIRMAN HUTTMAN: That's why I put it
11 on the record for you.

12 MR. HARDEN: And the sponsor.

13 CHAIRMAN HUTTMAN: Now that we are
14 done with member questions, unless that spurred
15 any new questions, we'll ask if there are any
16 questions from the public for Mr. Harden while we
17 have him here? Mr. McWhorter.

18 MR. MCWHORTER: Tom McWhorter,
19 Maritime Services Group. Luke, great to have you
20 here to publicly give us answers to questions
21 that a lot of us -- like the firefighting that
22 Ray had asked, that mariners prior to 2014 know

1 never have to take firefighting. They're
2 exempted. There still is a question that needs
3 to be clarified.

4 That is the issue with sea service,
5 and I know you alluded to it. One, understanding
6 what our sea service is. I want to go back to
7 NVIC 02-14, which is STCW transit. I'm not an
8 STCW, at all, expert. You probably are, and many
9 in the room. Giving grandfathering privileges in
10 that NVIC basically stated service or training,
11 if you had that before 2014, qualified for
12 grandfathering. What you stated in NVIC 03-16,
13 it actually states service -- basically training.
14 You stated that didn't start until -- in your
15 opinion, until you received your apprentice mate.
16 However, when I send in for my apprentice mate,
17 Coast Guard's going to ask me I need your 18
18 months of service time to qualify for apprentice
19 mate because that was your training time.

20 Then when I send in for my pilot's
21 license, which is usually after a year, and the
22 records have already transferred out of the NMC,

1 I can't just say I've got 12 months of time as
2 apprentice mate. Coast Guard asks no, I need all
3 your training time, even back when you was a
4 deckhand, or we'll have to go pull your legacy
5 file to make sure you have that training time.

6 I would strongly ask Coast Guard to
7 reconsider what is training time? When mariners
8 join one of these companies, they do not join as
9 I want to be a lifetime deckhand. My goal is to
10 go in the wheelhouse. When that training time
11 starts is Day 1 of deckhand service time. There
12 are some lifetime deckhand mates and tankermen
13 that choose, but the folks that are going in the
14 wheelhouse are -- to get that pilot or master's
15 license, they've got to have that 18 months of
16 training sea service to get their apprentice
17 mates. I would strongly urge you or Coast Guard
18 to re-look at how you interpret when did that
19 training start. Because it started when I
20 started as a deckhand, not when I started as
21 apprentice mate.

22 There are many companies that hire

1 these folks, they have them up in the wheelhouse,
2 training, just to see does this individual have
3 those qualities before I send him to apprentice,
4 which is totally legal. It's still on my
5 license, as a master. I'm training him or her
6 before I get their apprentice mate's license, so
7 strongly urge Coast Guard to reconsider how they
8 look at when training started. To my
9 understanding, it did for STCW mariners. I don't
10 know why we didn't do that for inland route water
11 river.

12 MR. HARDEN: Tom, I appreciate the
13 comment there. I would say that we are looking
14 at it -- the interpretation for when training
15 starts towards the next credential is interpreted
16 the same way, whether it's for STCW or on the
17 towing side. We do start the same way because
18 the gate is -- now your concern about where they
19 ask you show me you've done the 18 months to get
20 to apprentice mate, once you hold apprentice
21 mate, all you should be showing for mate is I've
22 done my 12 months as an apprentice mate.

1 I can see you're shaking your head,
2 which tells me that's not what's happening. What
3 I'm saying is that apprentice mate starts the
4 time -- once you hold the apprentice mate, that's
5 what starts your time towards the next
6 credential.

7 MR. MCWHORTER: Just one more comment.
8 I guess that's how Coast Guard looks at it. That
9 apprentice mate actually starts the time that I
10 can claim. It didn't start my training time.
11 Some of these other operators may want to chime
12 in here. Again, I understand what you
13 interpreted, but how the industry works is
14 training started before I got the apprentice
15 mate.

16 MR. HARDEN: I understand that. It's
17 just like for cadet at a maritime academy. Their
18 time as cadet goes toward their third mate or
19 third assistant engineer. Their time towards
20 their next level doesn't start until they hold
21 that credential as an officer. It's the same --
22 we look at it the same way, that it's the same

1 sort of evaluation, even though at the maritime
2 academy, they may have already done some of their
3 management-level training, we still -- they don't
4 start the time towards management until they hold
5 that credential.

6 CHAIRMAN HUTTMAN: Any further
7 questions from the general public?

8 MR. BISH: A question and a statement.
9 In regard to the 50 percent time allowed for
10 ATBs, I was in at a meeting about a year ago, we
11 had someone from NMC at the meeting. We talked
12 about the 50 percent time allowed for ATB. I
13 understand this is a double-edged sword, and we
14 tread lightly when we go to that area.

15 The statement was made that the ATB
16 time is only 50 percent because ATBs only operate
17 as ATBs 50 percent of the time. I said, "Where
18 do you get that?" She said, "This is what we've
19 deduced from what we see happening in the
20 industry." I wasn't the only person that spoke
21 up. I said, "That's not true." ATBs operate as
22 ATBs probably 90-95 percent of the time. It's

1 just a very short time that they're not made up
2 to the notch. My question is there seems to be a
3 disconnect in the Coast Guard about what is
4 actually taking place in industry with ATBs.
5 Maybe that license time should be re-evaluated
6 and looked at again.

7 Because we are denying people who have
8 deep sea licenses from maintaining their licenses
9 on vessels of the appropriate tonnage. Again, I
10 understand it's a double-edged sword, but there
11 does seem to be a disconnect within the Coast
12 Guard, itself, about what ATBs do and how long
13 they do it for as an ATB.

14 MR. HARDEN: Not having known who
15 spoke to you, nor --

16 MR. BISH: I can get the name, but it
17 was about a year ago.

18 MR. HARDEN: Nevertheless, we
19 recognize the fact that most ATBs are operating
20 primarily as ATBs. They rarely operate as a
21 standalone tug. We understand that. The reason
22 we give a different evaluation is because an ATB

1 is not a conventional vessel. Because it's not a
2 conventional vessel, we are only giving partial
3 credit for the service on an ATB. They're not
4 manned like a conventional vessel, nor do they
5 operate completely like a conventional vessel,
6 nor do they have all the equipment of a
7 conventional vessel. That's why we give a
8 partial credit. I understand there'll be some
9 disagreement there, but that's how we've come up
10 with the time on that. We can revisit it.

11 MR. BISH: I think you need to revisit
12 because I think many ATBs are equipped as ships.
13 In fact, some have more than ships have on them.
14 The hours are different than a ship, obviously.
15 The level, the quality of the manning is
16 substantially higher than what it used to be,
17 say, even 15 years ago. It is an issue that
18 needs to be revisited because we do carry the
19 freight. We move that tonnage. Again,
20 understanding it's a double-edged sword. I think
21 it needs to be revisited.

22 MR. HARDEN: But as far as renewal

1 time, if you get 12 months on an ATB, that's 12
2 months towards renewal. You can renew the
3 credential based on your service time, and the
4 service time is 12 months.

5 MR. BISH: But if it only counts 50
6 percent towards an unlimited license --

7 MR. HARDEN: You're right, but as far
8 as renewal of that unlimited license, you can
9 renew your unlimited license by showing 12
10 months' service time. Now, you can't -- the
11 upgrade becomes (Simultaneous speaking).

12 MR. BISH: I understand.

13 MR. HARDEN: -- obtaining the original
14 credential (Simultaneous speaking).

15 MR. BISH: I think there's lack of
16 understanding in the industry, then, about the
17 renewal process. Either NMC's not crediting it
18 correctly for the renewal process, or there needs
19 to be -- maybe there needs to be some additional
20 guidance. I don't think the individuals
21 understand that.

22 MR. HARDEN: If you can show me the

1 circumstances, that would be helpful because it
2 only takes being able to identify it to the
3 people responsible, and they change their
4 training and make sure their people understand.

5 MR. BISH: The second one's about the
6 TOAR. At one time, we had a separate ATB TOAR
7 that was approved by the Coast Guard. It
8 eliminated some of the towing functions, and the
9 license they issued was limited to ATB TOARS
10 only, the master towing vessel or major towing
11 vessel. Now that you've come out with a TOAR, in
12 that language in the TOAR, it says Coast Guard
13 will evaluate the TOAR and act accordingly and
14 issue the credential accordingly. Do we need to
15 put a preamble or some sort of statement when we
16 submit that TOAR to the Coast Guard that this is
17 for operations under ATB only, or will you deduce
18 that from the lack of qualifications based on
19 simple towing on the competencies?

20 MR. HARDEN: It would probably be
21 helpful if you said this is for ATB only. The
22 evaluators at the National Maritime Center,

1 they're looking at a lot of different types of
2 vessels, so they --

3 MR. BISH: Okay, thank you.

4 CHAIRMAN HUTTMAN: Thank you, Mr.
5 Harden. Any further questions? Ms. Taft.

6 MEMBER TAFT: I started working with
7 you on MEDMAC. Jill Taft, Kirby Inland Marine.
8 I have a question on towing vessel regulations in
9 Subchapter M under manning, 15.535 has to do with
10 towing and recency, acting as pilot on the lower
11 Mississippi River. The paragraph in question,
12 moving tank or hazardous material barges, to
13 operate a towing vessel with tank barges, blah,
14 blah, blah, Subchapter N or O, "The officer in
15 charge of the towing vessel must have completed
16 at least 12 round trips over this route as
17 observer, with at least three of those trips
18 during hours of darkness. Must provide evidence
19 to the Coast Guard upon request that at least one
20 of these 12 round trips occurred within the last
21 five years."

22 My question is for all of those

1 mariners who have been traveling this route for
2 30 years, do we have to now go back and show that
3 they were an observer over the last five years?
4 They've been traversing this route as a
5 credentialed mariner with trips and
6 familiarization trips accrued probably over the
7 last 20 years, certainly long before, probably, a
8 lot of our companies' electronic recordkeeping
9 helped to track who was when, where, over what
10 route. The question arises how does one satisfy
11 that, if that's called into question, for
12 long-term mariners on those routes?

13 MR. HARDEN: For the historic -- that
14 one, I'll ask you to -- ask to send me -- ask
15 TSAC to send it to me because I can see how that
16 could be a problem for the individuals who've
17 been operating in the area. Because there, you
18 would say that the alternative is that all they
19 have to show is the round trip -- the one round
20 trip in the last five years, I would think. It's
21 one of those that I'd want to have a better
22 opportunity to look at and talk to my

1 counterparts in the reg drafting side of the
2 house.

3 MEMBER TAFT: Okay, thank you.

4 CHAIRMAN HUTTMAN: Okay, no further
5 questions for Mr. Harden. I want to thank you
6 very much. Oh, we have one more. We've got to
7 redirect. Tom, I'm going to have to call you on
8 this at the end of this on your two minutes.

9 MR. MCWHORTER: Tom McWhorter,
10 Maritime Services Group. Luke, you had mentioned
11 the PIC fueling you guys are working on. Can you
12 share with us what the vision today is of what
13 the Coast Guard's looking at from the letter of
14 designation to -- is that system -- is there any
15 way to keep that type of system? I've heard all
16 kind of different aspects of the Coast Guard's
17 thinking is the easy fix is to make an MMC with
18 towing vessel or fueling. That's not the easy
19 fix. That still creates a huge problem, as it
20 was brought out that you're talking about tens of
21 thousands of mariners that will require a TWIC
22 on, plus this credential, and possibly even more

1 than that, huge demand on NMC, huge issue in the
2 brown water industry on folks that don't even --
3 that are not required to have an MMC today. I
4 don't know if you can talk of where you are and
5 what the look at that looks like right now.

6 MR. HARDEN: As I'm sure they told you
7 yesterday, we're working on a policy on this.
8 Once we get the policy -- we're dancing between
9 the two committees that have some jurisdiction on
10 this. We're dancing between the Towing Safety
11 Advisory Committee and the Merchant Marine
12 Personnel Advisory Committee. Those are the two
13 committees who have some purview of this item.

14 We're working at drafting a policy
15 letter. It'll be probably presented as a task
16 for review and comment at your next committee, or
17 your next meeting. I said probably because as
18 Rich will tell you, I'm an optimist about getting
19 the job done. Unfortunately, the process is
20 pessimistic. As far as the easy way to get it
21 done, it's regulatory right now. There is
22 nothing easy with the regulations. If we're

1 going to change the regulations, we have to go
2 through a regulatory process to change the
3 regulations. As you're aware, some regulatory
4 rules take a long time to get done. I was just
5 looking back at the fact that the Tankerman PIC
6 rule took 15 years to get done, if any of you are
7 old enough to remember that rulemaking from start
8 to finish. Subchapter M took eight years?

9 PARTICIPANT: Twelve.

10 MR. HARDEN: Twelve, okay. My rule,
11 the towing rule, seemed like it went light years,
12 and it took a decade. I don't think there's any
13 quick fix if we're going the regulatory pathway.
14 We're looking at developing policy. We're
15 looking at identifying grandfathering processes,
16 but that's -- we're looking at how do we proceed
17 with this.

18 CHAIRMAN HUTTMAN: All right. Thank
19 you, Mr. Harden. I appreciate you running the
20 gauntlet here today, taking the questions for
21 some of our TSAC members, and there was some
22 discussion on the ATBs. I point you to Paragraph

1 3 of your ATB task statement. Questions about
2 service and other things associated with ATBs
3 could easily be appended to your task that says,
4 "And any other things that the subcommittee
5 wishes to put forward." Some of the issues
6 raised today regarding ATBs, that may be an
7 opportunity for you to just tag that along, where
8 we don't need any special tasking from the Coast
9 Guard, in order to provide comments back to the
10 Coast Guard on those particular issues.

11 Thanks again, Luke. We do appreciate
12 your coming to join us. At this point, we have
13 Mr. Vitt to give us the first report, Report No.
14 1, on the recommendations for the implementation
15 of 46 Code of Federal Regulations Subchapter M,
16 Inspection of Towing Vessels, Task No. 16-01.

17 RECOMMENDATIONS ON THE IMPLEMENTATION OF 46 CODE
18 OF REGULATIONS SUBCHAPTER M-INSPECTION OF TOWING
19 VESSELS (TASK NO. 16-01)

20 MEMBER VITT: Good afternoon. I'm
21 Mike Vitt, one of the members of TSAC. I was
22 asked to be chairman of the TSAC subcommittee

1 relating to the implementation of Subchapter M.
2 This is the first report. There will probably be
3 many. I'm certain Mr. Harden identified at least
4 two. There are some questions that could be
5 answered in relation to those -- excuse me, there
6 might be some answers in relation to some of
7 those questions we heard. The first part of the
8 task -- the first topic for the determination was
9 the review of the Marine Safety Manual, Volume
10 III, Change 1. They were looking to make a
11 Change 2 and ask for some comment, in addition to
12 the docket that was prepared for comment, as
13 well.

14 We, as a subcommittee, were helped
15 greatly by the American Waterways Operators, who
16 hosted a conference call on August 23rd. There
17 were 46 people on the conference call. Not
18 everyone identified themselves. Then yesterday,
19 there was good participation and comment. I
20 think a lot of this was discussed yesterday. I
21 don't know how much you'd like to hear again.

22 I'm going to go right to the

1 recommendations of the subcommittee. There were
2 some specific items identified as disconnects in
3 the Marine Safety Manual. We collected those.
4 I'll move right to the recommendations. This is
5 the first set of recommendations that related to
6 the Marine Safety Manual. We are asking
7 confirmation that able seamen are not required on
8 towing vessels that are at measured below 100
9 gross registered tons. We are also asking
10 specifically -- in the MSM, there are some
11 paragraphs and tables that have apparent
12 disconnects. We've identified them. It relates
13 both to able seamen on towing vessels, it also
14 relates to licensed engineers. They were well
15 identified in the AWO submission, and we would
16 like to incorporate by reference that AWO letter
17 of September 13th as an enclosure to this report.

18 No. 3 relates to almost the same
19 regulation that Ms. Taft was talking about. On
20 the lower Mississippi River, there is a
21 designation as pilotage water. One of the
22 problems with that is there's no definition found

1 anywhere of what constitutes pilotage waters.
2 There have been a number of problems related to
3 meriting not only the record keeping portion that
4 Ms. Taft identified, but also for what actually
5 constitutes pilotage waters.

6 The Federal Register cites in that
7 regulation do not give you the answer. Going
8 back further, we found the source of that
9 particular language. I asked that to be
10 identified in the Marine Safety Manual, so that
11 the OCMI's or IO's that have a question about
12 service on that route know exactly what the
13 boundaries are. I did identify the source. It's
14 in the body of the report. We have a
15 considerable difficulty with the terms that are
16 used in Subchapter M, the terms that are used in
17 Subchapter B, related to the licensing, and some
18 difficulty with Subchapter N, in terms of
19 lifesaving.

20 The route structure do not conform
21 well. You can be coastwise for purposes of
22 stability. You can be coastwise for purposes of

1 lifesaving equipment. But as spoken to earlier,
2 there are places where you're literally running
3 inland waters. That creates confusion for the
4 mariner, not just for the NMC. I could see a
5 mariner saying wait a minute, I can't do this
6 because I can't go out beyond the seaboard, for
7 example.

8 We asked that some conformance, to the
9 extent possible, be promulgated. If not, then at
10 least some cross-reference matrix be put in the
11 Marine Safety Manual so it's an easy place to
12 find that this term, coastwise, means this for
13 this purpose, and that means something else for a
14 different purpose. That's been identified in
15 just about every task we've talked about. No. 5,
16 we asked that the Coast Guard consider adding a
17 new NVIC or publishing a policy letter to
18 describe how automation will apply to towing
19 vessels. What's in the Marine Safety Manual now
20 is somewhat lightweight, in that it refers back
21 to an old OSV NVIC dating back to 1978, and one
22 that relates to ships.

1 There's some difficulty with figuring
2 out how much automation do you need to reduce
3 manning? It's sort of left in the purview of the
4 OCMI that's issuing the certificate of
5 inspection. The problem with that is that
6 there's so many different types of towing vessels
7 and so many levels of automation. But even so,
8 there could be a minimum standard, such as the
9 listing in Subchapter M, for example, of the
10 required monitoring and alarm.

11 At least that would provide a uniform
12 application across the United States. If you
13 have these things, you only need -- you don't
14 need an engineer if you're below 4,000 horsepower
15 or sailing on this particular route or whatever
16 the issue might be. It would also provide the
17 companies a place of argument, that you could
18 refer to a particular source that's out in the
19 public domain, "Wait a minute, Mr. Inspector,
20 you're wrong," or, "Ms. Inspector, you're wrong.
21 It's here in the Marine Safety Manual that if I
22 have XYZ, my manning can be this particular

1 level." There are additional disparities with
2 the COI and routes on a mariner's MMC. That
3 relates back to the coastwise, limited coastwise
4 routes that would be on a COI.

5 I can expect for a couple of years or
6 more afterward, there'd be some difficulty with
7 enforcement of routes and licensing, so we ask
8 that there's a reference at hand for that, which
9 relates back to No. 4. Then last thing that we
10 talked about for the Marine Safety Manual is that
11 it be announced when it's promulgated, so the
12 changes are noticeably in the public domain, as
13 opposed to being changed and, if you can find it,
14 good luck to you.

15 The Coast Guard's pretty good about
16 putting stuff on the web. We applaud that, but I
17 think the outreach needs to be further. The most
18 significant import of this report related to the
19 person in charge of fuel transfers on towing
20 vessels. We asked that Coast Guard refer back to
21 the TSAC work that was done as far back as 1998
22 that created the letter of designation for

1 under-inspected towing vessels. Some of the
2 thought that went into that process should assist
3 in promulgating a new policy. It would help to
4 look back to see the historical reasons of why it
5 was necessary. We need to continue to examine
6 that issue.

7 You heard Mr. Harden saying policy was
8 being generated. That's what we're referring to,
9 that that continue and that the public continue
10 their discourse with the Coast Guard. Then we
11 need -- the policy guidance, itself, has got to
12 be clear enough that it's understood across the
13 board by all segments of the towing vessel
14 industry.

15 There's some difficulties as it
16 relates to towing vessels that do not handle red
17 flags, for example. A Western Rivers towboat
18 that only handles barges full of sand, the only
19 people required to have an MMC would be the
20 master and the pilot. That's a problem if that
21 unlicensed engineer were the person in charge by
22 letter of designation, but didn't hold the TWIC,

1 because that's not required either, and certainly
2 doesn't hold an MMC. What do you do about that
3 population? In the preamble of Sub M, it had a
4 fairly limited number of mariners that would be
5 affected by this. As it turns out Ms. Warder
6 said tens of thousands. I'm not sure about that,
7 but I know it's somewhere between 3,000 to at
8 least 4,500, maybe 5,000, minimum. I'm sure
9 there are more. It's a big population.

10 If there were a demand for issuance of
11 MMCs, it would be a burden on the National
12 Maritime Center. That, Mr. Chairman, is the sum
13 of the report and the recommendations that were
14 made by the subcommittee. We certainly thank the
15 public for their input, and AWO and AMSA for
16 their input, and ask if there's any questions now
17 about this report?

18 CHAIRMAN HUTTMAN: Thank you, Mr.
19 Vitt. With that, I would ask if there any
20 members of the TSAC committee who have any
21 questions for Mr. Vitt regarding the
22 subcommittee's Report No. 1?

1 MEMBER MYSKOWSKI: Yes, Chris
2 Myskowski with TSAC. Just a comment. Hearing
3 the possible work around being this issuing
4 credentials, it just seems like foolishness
5 because of how difficult it is to get this small
6 change in the regulations that everybody agrees
7 on. It's unbelievable to me that we're going to
8 consider this huge program of merchant mariner
9 credentialing and all the costs and paperwork and
10 administratium that is going to be involved in it
11 for something that everybody agrees needs to be
12 done. Surely, there is another way.

13 I just encourage the Coast Guard to
14 look for that. I don't know if there's an
15 equivalency or some way to write a policy where
16 the master or pilot can be represented, but yet
17 not be the one that has to be doing the fuel
18 transfer, but surely, there's got to be a better
19 way than this giant merchant mariner
20 credentialing program, while we wait for a
21 regulation -- a correction to a regulation to
22 happen. Thank you.

1 CHAIRMAN HUTTMAN: Thank you. Any
2 other questions? We are fortunate, today, in
3 that our executive sponsor is also a member of
4 the TOPOCO, so he likes to use his acronyms. For
5 those of you -- we're not supposed to use
6 acronyms. I think it's the Towing Policy Council
7 within Coast Guard headquarters. He's asked for
8 a moment to speak to us on this issue. With
9 that, I'm going to turn it over to Captain Kelly.

10 CAPT. KELLY: Yes, this is Captain
11 Kelly. Good afternoon, again, everybody. The
12 sad irony of that acronym is you all weren't
13 supposed to hear it ever, at all, ever, ever,
14 ever, ever. Anyway, nonetheless, yes, I am part
15 of it. I actually had a question. I know we
16 just gave it to you this week, but I wanted to
17 know if you all had had a chance to look at the
18 TPO guidebook and had any comments you were
19 willing to offer at all?

20 MEMBER VITT: I have a suggestion.
21 The TPO guidebook is of great importance to more
22 than the members of this committee. I'd ask that

1 the chairman consider assigning that as a tasking
2 to the subcommittee that currently exists to
3 handle such questions, so that we can get some
4 public debate and comment about that. I think we
5 can fast track that and get that information to
6 you as a Report No. 2.

7 CAPT. KELLY: May I motion yes?
8 Probably a FACA rule violation there, but I agree
9 with that.

10 CHAIRMAN HUTTMAN: We will take a
11 floor action.

12 CAPT. KELLY: Yes, I would call out,
13 in the original task statement, it does say that
14 we were going to provide additional reports to
15 you all. On that note, I'll just pick it up for
16 all of you. What we intended to provide was the
17 TPO guidebook earlier.

18 Because of the way the process works,
19 we just delivered it to you. What we also intend
20 to do, if you look at the task statement, it does
21 mention that there's other reports. They're
22 going to be the other enclosures in the NVIC.

1 There are a couple things, when you look at the
2 TPO guidebook, you'll notice that there's a
3 couple of key compliance questions that have been
4 asked by you all that are in that pile of
5 questions that Captain Gifford referred to
6 earlier.

7 We have put those questions to the
8 compliance guidebook. What the current plan is,
9 in this dynamic, is you have a TPO guidebook
10 first, which is an effort to get the TSMS system
11 running as quickly as possible, so we put it out
12 to start the framework, and it's dynamic. We
13 plan to update it as we need to, based on your
14 feedback through the NCOE -- Jacie's here. The
15 next guidebook that you should see is something
16 we're calling a TSMS compliance guidebook, which
17 is going to answer some of the questions we've
18 received about TSMS, itself, how it would work.

19 The third document that we need to
20 deliver, I'm not sure if that's going to go to
21 the public, but we need to deliver a document to
22 our own marine inspectors about how they're going

1 to deal with vessels that are in the TSMS option
2 for towing vessels. That is the current plan.
3 We would, of course, appreciate -- if you look at
4 the implementation schedule that we've set forth,
5 we're all challenged to work quickly together,
6 get your feedback on the TPO guidebook, working
7 within the rules of the FACA.

8 Whether we have an interim of dialogue
9 or not, that would be probably helpful. Then
10 just to let you know ahead of time that literally
11 next week, now that TSAC is done, we're getting
12 right to work on reforming with the NCOE. We
13 have an internal group of people that get
14 together once in a while. We'll be looking at
15 the TSMS compliance guidebook next, to put that
16 out as quickly as possible, as well. What the
17 FACA allows us to do is to give it to you, and
18 then we'll also, simultaneously -- it's delivered
19 to you as part of a task statement, so it's put
20 on Homeport, as well, for folks to see. We would
21 ask that you accommodate people's questions as
22 they feed them through to the FACA.

1 CHAIRMAN HUTTMAN: Thank you, Captain
2 Kelly. With that, any questions from the general
3 public for Mr. Vitt regarding Report No. 1 from
4 the Subchapter M implementation subcommittee?
5 Hearing none, at this point, Mr. Vitt, that
6 report, as I understand it, is ready for --

7 MEMBER VITT: Prime time.

8 CHAIRMAN HUTTMAN: -- presentation and
9 acceptance by the full committee. I would
10 entertain a motion from a committee member to
11 accept the report, as drafted.

12 MEMBER TAFT: So moved.

13 CHAIRMAN HUTTMAN: We have a motion by
14 Ms. Taft. I'm looking for a second.

15 MEMBER RICHMOND: Second.

16 CHAIRMAN HUTTMAN: We have a second
17 from Mr. Ray Richmond. Is there any further
18 discussion on accepting Report No. 1 for
19 forwarding to the Coast Guard from Subchapter M
20 implementation, Task No. 16-01? Hearing no
21 further discussion, I will call for a vote on the
22 motion. At this time, all those in favor, say

1 aye.

2 (Chorus of ayes.)

3 CHAIRMAN HUTTMAN: All those opposed,
4 say nay.

5 (No audible response.)

6 CHAIRMAN HUTTMAN: Hearing none
7 opposed, are there any abstentions?

8 MEMBER VITT: There are. I abstain.

9 CHAIRMAN HUTTMAN: Mr. Vitt recognizes
10 an abstention. Therefore, the motion carries,
11 and we will prepare the final transmittal letter
12 to send the first report of the Subchapter M
13 implementation team. As Captain Kelly mentioned,
14 and per our guidance from Task No. 16-01, we have
15 been presented with the TPO guidebook.

16 Mr. Vitt, moving forward, that's a new
17 task for your subcommittee to provide guidance
18 back to the Coast Guard expediently as we can do.
19 At this point, thank you, Mr. Vitt, for your hard
20 work and continued effort on that task. We will
21 now hear a report from the subcommittee
22 concerning recommendations regarding firefighting

1 training requirements for officer endorsements
2 for master or mate pilot of towing vessels,
3 except apprentice mate steersmen of towing
4 vessels in inland service, Task No. 16-02. Our
5 subcommittee chair is Mr. Mike Rushing.

6 RECOMMENDATIONS REGARDING FIREFIGHTING TRAINING
7 REQUIREMENTS FOR OFFICER ENDORSEMENTS FOR MASTER
8 OR MATE (PILOT) OF TOWING VESSELS, EXCEPT
9 APPRENTICE MATE (STEERSMAN) OF TOWING VESSELS
10 IN INLAND SERVICE (TASK NO. 16-02)

11 MEMBER RUSHING: Thank you. I'm Mike
12 Rushing, Rushing Marine, representing the general
13 public. I have the enjoyable task of trying to
14 help manage this firefighting training task that
15 we have, Task 16-02. Can you all hear me okay?

16 PARTICIPANT: Yes.

17 MEMBER RUSHING: Okay. I want to
18 start by saying this is -- essentially, it's a
19 brownwater issue. It affects inland mariners and
20 Western Rivers mariners and their credentials.
21 We'd like to ask that the members of this
22 committee respect the expertise of the seven

1 members of the committee that have brownwater
2 background and experience, as we address this
3 task going forward. We had a meeting yesterday.
4 It involved 31 people. We spent several hours
5 working in a breakout session. I think we've
6 come to several conclusions. We continued to
7 work some yet this morning, too, but we're not
8 ready to make a formal report to the committee.
9 I can give you some ideas of some of what was
10 considered and where I think we might be headed.

11 We're going to have another meeting --
12 we'll continue to work with the committee through
13 conference calls and emails between now and the
14 end of November. We intend to schedule another
15 meeting for November 30th of our committee, at
16 New Orleans, in conjunction with the Work Boat
17 Show. Arrangements for that have not been set up
18 yet, but will be.

19 We're hoping to include some of the
20 members from MERPAC into that meeting. Our
21 overall goal here is to try to end up with one
22 report from both committees, so that it would

1 maybe carry a little more weight and be simpler
2 for the Coast Guard to manage. I don't know that
3 can happen, but it's something that we want to
4 try to make happen. I think where we are right
5 now is that we understand that this is an issue
6 about credentialing for mariners that have a
7 national endorsement, not mariners that have an
8 STCW endorsement. Therefore, the expectation to
9 do training based on the STCW may not have,
10 really, any impact on the outcome of this report.
11 I expect that we'll probably end up with offering
12 several options.

13 One of those options might be an
14 approved training program and a syllabus for what
15 that approved training program might include. In
16 addition to that, maybe an option for a Coast
17 Guard accepted program that might provide the
18 same level of training as what the approved
19 training would provide, and then thirdly, an
20 option to take it to an approved TSMS, also with
21 the expectation that it would address the same
22 level of training that would be required by the

1 other two training programs.

2 That's what's been discussed. That's
3 the majority of what's been on the table and is
4 on the table at this moment. It's going to get
5 massaged quite a bit between now and November.
6 Hopefully, we'll have a good representation at
7 the November meeting, where we can be face to
8 face and work with the group to further resolve
9 this issue. Our expectation at the moment is to
10 still be able to come back to the spring meeting
11 with a final report. That's our hope and our
12 intent. That's where we are today.

13 CHAIRMAN HUTTMAN: Very good. Thank
14 you, Mr. Rushing. Are there any questions for
15 Mr. Rushing from the TSAC members? Mr. Fewell.

16 MEMBER FEWELL: This all for the
17 officer endorsements. What about the rest of the
18 crew? As a shipper, I've got a lot of tows
19 moving, two barges, two tens on a boat. If it's
20 involved in an incident, if one of those officers
21 goes down, what do the two deckhands or ABs
22 remaining on that boat, how do they know what to

1 do?

2 MEMBER RUSHING: We have training
3 requirements for the rest of the crew. Actually,
4 in my mind, that includes the master and the mate
5 pilot, also. In 46 C.F.R. Part 27, it requires
6 training -- I'm not going to be able to quote it
7 all, but training, essentially, over all of the
8 firefighting equipment that's on the vessel.
9 Whatever's on the vessel, they require training
10 of, training for how to shut off the ventilation,
11 how to close off the spaces, how to activate the
12 fixed fire system, if there is a fixed system. I
13 think that's probably the bulk of it. There may
14 be another item or two, but that's the
15 requirement for monthly training and monthly
16 drills to actually practice fighting a fire in
17 the engine room and other spaces onboard the
18 vessel and practice that using all of the
19 equipment that's on the vessel.

20 That's a monthly requirement for
21 training. It's a monthly requirement for drills.
22 That same amount of information is reiterated in

1 Subchapter M with one small addition. Subchapter
2 M continues on with what was required since 2004
3 with 46 C.F.R. Part 27.

4 CHAIRMAN HUTTMAN: Mr. Vitt.

5 MEMBER VITT: One of the things we're
6 missing there is that -- Mike Vitt for TSAC. Can
7 everybody hear me?

8 (Simultaneous speaking.)

9 MEMBER VITT: All right, I'm live and
10 in color. Mr. Rushing, a lot of the inland tows
11 on the Western Rivers and other places have
12 tankermen that ride the boat, correct?

13 MEMBER RUSHING: Yes, there are
14 vessels that have tankermen. Usually, those are
15 liquid tows that they're dedicated tows to the
16 public, but there are some boats with tankermen,
17 yes.

18 MEMBER VITT: Those individuals, in
19 order to have a tankerman PIC barge, have to have
20 a firefighting course. They have already
21 completed firefighting training. I wanted to let
22 you know that, so that you wouldn't have the

1 impression that no one in the crew, below the
2 officer rank, has training in firefighting.
3 That's not the case. A great deal of mariners
4 who handle red flag barges do have firefighting
5 training.

6 MEMBER RUSHING: There also are a
7 number of towing vessels that do not have
8 tankermen, that have tank barges in tow, that
9 they use shore tankermen, so there's no guarantee
10 that just because there's a tank barge in tow,
11 there will be a tankerman on board.

12 MEMBER VITT: Understood. That's
13 basically the company's business practice,
14 whatever that might be.

15 MEMBER RUSHING: Yes, sir.

16 CHAIRMAN HUTTMAN: Mr. Lagarde.

17 MEMBER LAGARDE: I would also offer
18 that fire training for the deck crew and for the
19 wheelhouse is also a requirement of AWO's
20 Responsible Carrier Program. The AWO members
21 will also have, as part of their TSMS -- it will
22 be a TSMS -- some portion of a training

1 requirement that's already involved in the
2 company-specific training requirement, although
3 it's not going to be, necessarily, a Coast Guard
4 approved third-party option, and probably doesn't
5 necessarily need to be.

6 MEMBER RUSHING: I might say that
7 training required by RCP is more comprehensive
8 than what the training in Part 27 -- it does get
9 into the theory of fire and some of those others,
10 the management. It also gets into fire
11 prevention, none of which are mentioned in the
12 regulation. The regulation's all about using the
13 equipment and fighting the fire, hands-on sort of
14 things.

15 CHAIRMAN HUTTMAN: Mr. Myskowski.

16 MEMBER MYSKOWSKI: Chris Myskowski
17 with TSAC. It's kind of a question, I guess, for
18 you, Mr. Chairman, being new to TSAC, and maybe
19 it's a procedural or scope issue for this
20 committee. One of the discussions Mr. McWhorter
21 brought up was this idea of when does the service
22 begin to be counted. Is that something that the

1 subcommittee could make a recommendation on to
2 the Coast Guard, or would that be outside the
3 scope of that document? That will impact who
4 gets -- who would be required to get the basic
5 firefighting training.

6 CHAIRMAN HUTTMAN: No, as a point of
7 order, I believe our vetting committee had
8 already identified a gap in the tasking statement
9 that did not leave us -- we usually ask the Coast
10 Guard for an out that says, "And any other
11 recommendations that the committee looked for."
12 I'm pretty sure we added that item in our task
13 statement. That already exists. The
14 subcommittee actually can move forward and
15 address any other issues that are identified by
16 the subcommittee in the process of working
17 through the task statement.

18 MEMBER MYSKOWSKI: Okay. Then I'd
19 just ask Mr. McWhorter, I guess, that you address
20 that through MERPAC, as well, and we'll work with
21 you on that. Thank you.

22 CHAIRMAN HUTTMAN: Any other questions

1 from members for Mr. Rushing and the inland
2 firefighting task? At this point, I'll open it
3 up to the general public in attendance for any
4 questions regarding the progress on this task
5 statement. We would continue to encourage our
6 members of the public to continue to participate.
7 Most of the bulk of this work, as this is our
8 final progress report, is not done at these
9 meetings today.

10 It's done behind the scenes, with the
11 participation of many, many different members are
12 participating across the industry. We would
13 continue to encourage that and reach out to any
14 of the subcommittee chairs that are currently
15 working on any of these tasks, so that we can get
16 your comments and feedback and be able to
17 incorporate those into the deliberations of the
18 committee. With that, Mr. Rushing, we look
19 forward to the progress report and continued
20 progress on this task and a final report for the
21 spring meeting.

22 MEMBER RUSHING: Okay, thanks to

1 everyone for your input. We appreciate it.

2 CHAIRMAN HUTTMAN: Okay, at this point,
3 we're running a little bit ahead of schedule, so
4 we're going to go ahead and take a 15-minute
5 break because we've been running since lunch. We
6 will reconvene here at 2:45 p.m. At that point,
7 we're going to take up new business tasking that
8 we have another task statement on the agenda.
9 Hold on one second. I got a whisper in my ear,
10 and our executive sponsor had a comment.

11 Unfortunately, he has got to leave us
12 a little early today, and we want to make sure
13 that we get that on the record while he's here.
14 We very much appreciate the hard work that both
15 Captain Kelly and Commander Perez do for us to
16 move the process along for TSAC.

17 CAPT. KELLY: This is Captain Kelly.
18 I guess I better have something to say now. I
19 was just trying to say thanks, I have to go, but
20 next time I'll just sneak out behind him.
21 Actually, unfortunately, I do have to go. I just
22 didn't want you all to think I just disappeared.

1 I want to say thank you to everybody
2 for coming here once again, like I said this
3 morning, and let you know that obviously, we
4 recognize the great work and all the discussion
5 that we value here today. I just want to
6 highlight a couple things that I really am happy
7 to hear about. I think Admiral Thomas -- I know
8 he mentioned this at NOSAC, and I know I
9 mentioned this the last time at TSAC about trying
10 to find opportunities to leverage the work of the
11 FACAs that are going together. I'm really happy
12 to hear the potential opportunity for MERPAC and
13 TSAC to have a combined rapport.

14 I think that combined voice is much
15 more powerful, and it really gives us a greater
16 opportunity in the Coast Guard to leverage that
17 when we move forward with whatever issue we're
18 working on. I just also wanted to beat the drum
19 again one more time about the importance of your
20 work and your help with Subchapter M. I know we
21 just delivered another guidebook here, but the
22 reason why it's so important is that this is not

1 just about towing vessels.

2 What the TSMS option represents is a
3 paradigm shift in the Coast Guard in the way
4 we're approaching our regulations. We are going
5 to be talking to NOSAC next week in Houston about
6 safety management systems, which very much
7 parallels the work that we're doing with
8 Subchapter M. The reason why it's so important
9 and it's a paradigm shift is because what we're
10 trying to do is to embrace a new focus. If you
11 look at the way the Coast Guard typically
12 regulates, or an authority having jurisdiction, a
13 building code official, if you're a fire person,
14 like myself, you get together and you try to put
15 together, as the authority having jurisdiction,
16 your requirements. You usually, typically, fall
17 upon prescriptive requirements.

18 You agree upon, for example, the size
19 of that door, this is the size door we need. You
20 never think about it until there's a fire and you
21 realize how small that door is when you're trying
22 to run out. But somebody, somewhere, came up

1 with a prescriptive requirement for the size of
2 that door.

3 Then 40 years later, the nature of
4 these multi-purpose rooms have changed, and the
5 function has changed, but because you have a
6 prescriptive requirement, you cannot change the
7 size of that door. What we're trying to do here,
8 in the regulations, with the safety and
9 management system, is start a paradigm shift. I
10 don't know how familiar you are with
11 performance-based requirements and how
12 challenging they are, but what this is really
13 about is us to put our toe in the water here, to
14 borrow the joke from earlier today, about -- as
15 soon as we introduce requirements -- as a
16 regulator, and as a mariner, and as a receiver of
17 those requirements, it's great. That's my bottom
18 line, and that's what it should be. It's your
19 floor. Most quality companies exceed those
20 requirements.

21 But they do become your challenge
22 because they can't maintain pace with what you're

1 doing. The idea here is to create an umbrella
2 that values and brings in what the quality
3 companies are already doing and recognizes that.
4 As we talked about earlier, if you have a
5 properly implemented safety management system,
6 you're going to have more continuous operations.

7 You're going to be less likely to have
8 an accident. You'll be less likely to see the
9 regulator, and you'll be rewarded. It'll allow
10 us to focus our resources on higher risks. I
11 just wanted to be transparent with you that what
12 we're doing with the towing vessel regulations is
13 hard. You can see that. It's sort of dynamic,
14 how we flush out the interpretation, how we
15 really implement it. It's because it's a
16 paradigm shift, both for the industry and for the
17 Coast Guard. I would just ask that you continue
18 to communicate with us and try to help us become
19 more competent as possible about a safety
20 management system, what it means, so we can teach
21 our inspectors to do what I just said, which is
22 to reward those in industry that are exceeding

1 our regulations and requirements and help us
2 focus on the highest risks, where they're needed,
3 so that you can have safer, more uninterrupted
4 operations.

5 I think it's better for everybody. I
6 just kind of wanted to call that out for
7 everybody and, once again, thank everybody for
8 their focus, and thank you for your patience as
9 we work through, again, a real different change
10 to how we're doing it.

11 If we're successful, we will have
12 changed not only how we're regulating towing
13 vessels, but we're going to be walking that into
14 the rest of the industry. In fact, I'm doing it
15 next week with the offshore industry. Okay?
16 Thank you, and enjoy the rest of the day.

17 CHAIRMAN HUTTMAN: We'll stick with
18 it. It's a ten-minute break now. We're going to
19 come back quarter to.

20 (Whereupon, the above-entitled meeting
21 went off the record at 2:35 p.m. and went back on
22 the record at 2:50 p.m.)

1 CHAIRMAN HUTTMAN: One change to the
2 agenda is the presenter on this particular new
3 business tasking. On our agenda, it said it was
4 our DFO, but we're actually having the chairman
5 of our vetting committee take us through the
6 task, which, of course, is approved by the DFO to
7 make this change.

8 With that, I'm going to turn it over
9 to Mr. Johansson, who's going to present on the
10 recommendations regarding operational risks
11 associated with towing LNG barges astern, which
12 will be assigned as Task No. 16-03. As we all
13 learned, we cannot turn down a task that we get
14 from the Coast Guard, so this is our task. Our
15 job after seeing the task is to find a volunteer
16 who wishes to lead the task. That's what we get
17 to vote on. With that, Mr. Johansson.

18 RECOMMENDATIONS REGARDING OPERATIONAL RISKS

19 ASSOCIATED WITH TOWING LNG BARGES ASTERN

20 (TASK NO. 16-03)

21 VICE CHAIRMAN JOHANSSON: Good
22 afternoon, everyone. This was a task that was

1 presented to us. We reviewed this yesterday.
2 The change that was made by the vetting committee
3 was to remove both harbor and offshore and
4 replace it with the verbiage that was reflective
5 of Subchapter M. We had originally reflected the
6 language in licensing, and then we opted instead
7 to stick with the M language.

8 That's what we've done last night. I
9 did that; emailed that out. That is right there
10 from Subchapter M, which is oceans, coastwise,
11 limited coastwise, Great Lakes, lakes, basins,
12 sounds, or rivers. Then, of course, it is done
13 again on Task 1. Those were the only changes
14 that were made by the vetting committee. Other
15 than that, we will be sticking to what was
16 presented to us. But for clarification, those
17 were the changes that were made. This is the
18 task presented to the committee.

19 CHAIRMAN HUTTMAN: Thank you, Mr.
20 Johansson. As you can see -- we were talking
21 earlier about the comments. Usually, we ensure
22 that there's a Paragraph 3, 4, or whatever, one

1 of the last paragraphs in a task statement that
2 allows us some flexibility within the subject
3 matter of the task for us to take and provide the
4 Coast Guard with any additional recommendations
5 or comments if the committee so wishes. At this
6 point, we have received the new task from the
7 Coast Guard.

8 In order for us to move forward with
9 this, we need to assign a chairperson that wishes
10 to spearhead the work of the committee on this
11 task. At this point, I will open the floor up
12 for nominations or volunteers that wish to serve
13 as the chairperson for this subcommittee. Mr.
14 Caliendo.

15 MEMBER CALIENDO: Mike Caliendo, TSAC
16 I volunteer to chair that subcommittee.

17 CHAIRMAN HUTTMAN: Okay, so we have
18 one volunteer for serving as our chairperson.
19 Any other volunteers? No other volunteers, so I
20 need a motion. I'll entertain a motion to accept
21 that Mr. Caliendo wants to volunteer to serve as
22 chairperson on this. I need a motion.

1 MEMBER KRESS: I'll make a motion.

2 CHAIRMAN HUTTMAN: A motion very
3 quickly by Mr. Steve Kress. Second?

4 MEMBER SALYERS: I second.

5 CHAIRMAN HUTTMAN: Ms. Salyers has
6 seconded the motion. At that point, a nomination
7 for subcommittee chairperson as Mr. Caliendo.
8 We'll open that up for discussion.

9 PARTICIPANT: You're going to need
10 some help.

11 PARTICIPANT: Good luck.

12 CHAIRMAN HUTTMAN: Okay, so the
13 discussion, he needs some help. I read that as
14 at some point, you would wish to have us appoint
15 a vice chair.

16 (Simultaneous speaking.)

17 CHAIRMAN HUTTMAN: We have a motion on
18 the floor. The motion on the floor is to assign
19 Mr. Caliendo as the chairman for Task 16-03,
20 towing of LNG barges. At this point, I'll call
21 for a vote. All those in favor, say aye.

22 (Chorus of ayes.)

1 CHAIRMAN HUTTMAN: Those opposed, say
2 nay.

3 (No audible response.)

4 CHAIRMAN HUTTMAN: Any abstentions?
5 Mr. Caliendo noted exception. With that,
6 congratulations, we look forward to your
7 continued work on the committee. We know you've
8 carried out a number of these tasks before. Just
9 for the record, it was not a taxicab or Uber
10 ride. Mr. Caliendo has noted that this task will
11 probably need some additional assistance. I
12 would look for nominations or volunteers who wish
13 to serve as the co-chair or co-chairperson of the
14 committee. Mr. Kress.

15 MEMBER KRESS: Steve Kress.

16 CHAIRMAN HUTTMAN: This is really
17 good, two volunteers, and didn't even have to
18 appoint anybody.

19 PARTICIPANT: You didn't have to pay
20 for a taxi ride.

21 CHAIRMAN HUTTMAN: Yes. At this
22 point, if there are no other volunteers, and no

1 further discussion on appointment of a co-chair,
2 I need a motion to accept. Mr. Guidry. A motion
3 on the floor, accept Mr. Kress' volunteering to
4 be co-chair on the LNG Task 16-03. Second? Mr.
5 Vitt. Any further discussion? Hearing no
6 further discussion, a vote on the motion to
7 appoint Mr. Kress as the vice-chair of LNG Task
8 16-03. All those in favor, say aye.

9 (Chorus of ayes.)

10 CHAIRMAN HUTTMAN: Those opposed, say
11 nay.

12 (No audible response.)

13 CHAIRMAN HUTTMAN: Hearing none
14 opposed, and any abstentions? Mr. Kress
15 abstains. Congratulations, gentlemen. I know
16 that there are some folks in the general public
17 who have already expressed an interest in
18 participating on this task, in order for you to
19 stand up, and we will ensure that this
20 information, again, is posted on Homeport.

21 We'll update the task statement to
22 show the fact that you have been assigned as

1 chair and co-chair of the committee, so we can
2 get that out. We look forward to your work on
3 that task. Mr. Caliendo.

4 MEMBER CALIENDO: Mike Caliendo with
5 TSAC. Thank you. Anyone that's in the room that
6 would like to be on the subcommittee, if you can
7 see Steve or I and just let us have your contact
8 information, we'll get you on the preliminary
9 list for the subcommittee. Thank you.

10 TSAC MEMBER COMMENTS

11 CHAIRMAN HUTTMAN: Excellent. We've
12 reached the point of the agenda now where we have
13 some discussion from the committee members, so
14 we'll take comments from the committee, things to
15 consider for comments here, and things that we
16 have to address. We'll also ask for a report, on
17 the record, from the nominating committee, from
18 Mr. Kress, as well, that we did yesterday, to
19 report back to the Coast Guard regarding our
20 by-laws for the appointment of officer positions
21 on TSAC. Please limit your remarks to two
22 minutes, but we can go back around.

1 We're actually ahead of schedule, if
2 there any questions that you have. Things that
3 we wish to have the Coast Guard consider, this is
4 your opportunity to speak to the Coast Guard, on
5 the record, for additional tasking for the
6 committee or any other comments. No members?

7 Two things I've heard, at least people
8 have been planting seeds in my ear to say
9 consider this, so I'll take my opportunity, as
10 the chair, to bring these two issues up. We
11 heard throughout the meetings yesterday and today
12 of the issue relating to definitions, in terms of
13 license and routes. Rather than punt that back
14 to the Coast Guard and say, "Coast Guard, please
15 solve that," we have an opportunity to ask the
16 Coast Guard to task us directly to take that task
17 on. It's very much like our nomenclature task
18 that we've taken on in the past. We think this
19 could be valuable, in terms of reference, in
20 terms of an ability to highlight and show people
21 a pathway, where there are differences and lack
22 of consistency in regulations or understanding

1 terms.

2 If we can identify those, I think this
3 would be a good opportunity for us to consider
4 asking the Coast Guard to task us with that. I
5 open the floor to the committee on that for
6 consideration of a task for doing that. Mr. Vitt.

7 MEMBER VITT: That's a great idea. I
8 fully support it, however it's done. I thought I
9 was loud enough. Mr. Chairman, great idea. Mike
10 Vitt, TSAC. Great idea. It's not so much that
11 the terms, in their use, specifically, are
12 ambiguous. They're not.

13 It's just how they're cross-connected,
14 how a mariner's license interprets their
15 authority under the routes authorized of the COI.
16 A document that explains that, both for the
17 purposes of licensing, COIs, and life-saving
18 equipment, would answer a lot of questions before
19 they're asked. I absolutely, fully support that
20 idea, and I hope my fellow members do, as well.

21 CHAIRMAN HUTTMAN: Okay, questions or
22 comments for the discussion of the members?

1 MEMBER TERRAL: Joy Terral for TSAC.
2 For clarification, are we asking for a guidebook,
3 as such?

4 MEMBER VITT: In my mind, it doesn't
5 need to be more than three pages, a very simple
6 matrix, or a very simple explanation would
7 suffice. We're not asking for absolute clarity,
8 as much as you're hoping to provide a mariner
9 friendly, Coast Guard inspector friendly document
10 that's easy to pull out and use, so that the
11 questions, as they come up, are already answered.
12 Any more verbiage than that is probably
13 unwarranted.

14 CHAIRMAN HUTTMAN: Mr. Myskowski.

15 MEMBER MYSKOWSKI: Yes, Chris
16 Myskowski, TSAC. It just seems like there's not
17 a lot of need for a TSAC. I'm just trying to
18 understand some of the people volunteering to run
19 that committee in the future. I don't know if
20 that's something the Coast Guard could simply do,
21 since there's no real substantive changes we're
22 looking for, or recommendations. Is that

1 something that we could just ask the Coast Guard
2 to do and not actually task the TSAC with?

3 CHAIRMAN HUTTMAN: It may be easier
4 for us to provide guidance to the Coast Guard
5 than to ask the Coast Guard to -- to them, it's
6 finding a project sponsor who will take on this
7 task, in other words. If we do the work for them
8 and say endorse this, this is what we think, this
9 is our channel.

10 From my perspective, we're routinely
11 asked by the Coast Guard to consider those things
12 that we'd want to take on. We found a lot of
13 value in the nomenclature and consistency of
14 using nomenclature. I think this could be just
15 an add on that would make that very easy for a
16 lot of members. Then, of course, it carries the
17 weight of TSAC. We had a broad consensus across
18 the whole industry in order to provide that.

19 MEMBER MYSKOWSKI: Okay, thanks.

20 CHAIRMAN HUTTMAN: At this point,
21 based on that discussion, I would ask the
22 committee to entertain a motion for us to draft a

1 draft task statement to send to the Coast Guard
2 for tasking us.

3 LCDR. NABACH: Chairman, if I may,
4 Lieutenant Commander Will Nabach. I actually
5 think this is something that would probably just
6 fit under the Item 3 in most of your open task
7 statements. This is ECS, if it comes up there,
8 then maybe this is something that could be added
9 that -- just add it. Don't start something new.

10 (Simultaneous speaking.)

11 CHAIRMAN HUTTMAN: Okay, so no need
12 for a motion, based on the guidance from our
13 ADFO. We'll just take that as one of the
14 additional items that gives us the flexibility to
15 do that. Then the second item that had been
16 planted in my ear, over a period of time, is to
17 consider the issue of nomenclature for commands
18 to harbor assist tugs, tugs that provide ship
19 assist services in pilotage waters, in order to
20 provide some best practice of standardization
21 within the industry of commands.

22 Especially when the administrator,

1 this morning, was talking to you about these
2 tractor tugs and how they're utilized and
3 whatever, and that there's a great range of
4 diversity in each one of these ports. Yet, for
5 our mariners who move from company to company,
6 who have to relearn what are different commands,
7 we think there may be some value in us
8 considering that and putting out some kind of a
9 best practices or standardization stuff. I throw
10 that out not because I'm endorsing it, but for
11 your consideration because a number of members
12 have approached me about it for you to consider
13 it. Mr. Caliendo.

14 MEMBER CALIENDO: I think that -- Mike
15 Caliendo, TSAC. I think that's a great idea,
16 Steve, but it seems to me that you'd have to get
17 the various harbor pilot associations and that to
18 buy into using those commands to the tugs because
19 that's who's going to issue the command. I'm not
20 so sure -- that's a big task to get the various
21 -- around the country, the various pilot
22 associations to accept what the tugs want them to

1 say.

2 CHAIRMAN HUTTMAN: Yes. I think we
3 could engage them in the process, but if you
4 don't start -- if somebody doesn't start putting
5 the cart before the horse or the chicken or the
6 egg here, how do you have the discussion?
7 Because routinely, harbor assist tug guys have
8 problems with commands from even pilots within
9 their own organizations. One day you're getting
10 a command from one pilot and a tractor tug gets a
11 completely command from another pilot within that
12 association. From a consistency point of view
13 and be able to provide service safely, some
14 understanding of what the language we're speaking
15 is, I think, might be of value.

16 (Simultaneous speaking.)

17 MEMBER CALIENDO: Sure. Again, it's
18 a great idea. It's not just for the towing
19 industry, though. It's for the pilots. That's a
20 much more fragmented industry, I would say,
21 nationwide, than the towing industry. It's just
22 a point.

1 CHAIRMAN HUTTMAN: Any other comments
2 from the members on that?

3 MEMBER VITT: Yes.

4 CHAIRMAN HUTTMAN: Mr. Vitt.

5 MEMBER VITT: Mr. Chairman, TSAC has
6 already done this, many, many, many years ago.
7 In reviewing the accomplishments of TSAC, I
8 recall a tasking that did exactly this.

9 PARTICIPANT: For tractor tows.

10 MEMBER VITT: Not for tractor tows.
11 They didn't probably -- they still were overseas,
12 apparently.

13 (Simultaneous speaking.)

14 MEMBER VITT: I don't know how that
15 tasking was done or resolved or what the outcome
16 was. I couldn't find it. I'm sure it's buried
17 in an archive somewhere.

18 CHAIRMAN HUTTMAN: We'll check
19 faca.gov or --

20 MEMBER VITT: facadatabase.gov.

21 CHAIRMAN HUTTMAN: database.gov and
22 see if we can find it.

1 MEMBER VITT: I'm not on it, so it
2 doesn't matter.

3 CHAIRMAN HUTTMAN: Worthwhile, we may
4 wish to look at that as an archive. I just throw
5 that out as a discussion point for consideration
6 for tasking, not that we don't have enough to do
7 already. We need to be looking down the road as
8 to what things, as a committee, we wish to try to
9 tackle.

10 This is a question we get from our DFO
11 all the time. They would rather have us take on
12 tasks that we see are issues or on the forefront
13 of issues for the Coast Guard. Okay, any other
14 questions or comments from TSAC members?
15 Otherwise we'll move into the public comment
16 section. Did we have a sign-in sheet for any
17 public comments? I don't think so.

18 MR. ABERNATHY: I have no comments
19 provided to me.

20 CHAIRMAN HUTTMAN: We have no comments
21 or anybody who signed up to speak directly, so
22 we'll just open the floor, at this point, to see

1 if we do have any comments from any members of
2 the public in attendance here today. Hearing
3 none, we have no comments from the public, no
4 comments from the members.

5 That would conclude our agenda today
6 for today's fall towing safety advisory committee
7 meeting. No other questions on Subchapter M?
8 This is your last and final opportunity because
9 I'm going to turn this over to our DFO and ask if
10 he has any comments on today or yesterday's
11 activities, and then we'll move to adjourn.

12 CDR. PEREZ: Thank you so much for
13 participation. We appreciate all of the work and
14 the comments and all the good information. We
15 look forward to maintaining the great partnership
16 and keep working on the task statements that we
17 have. That's pretty much it from our side, if I
18 can get maybe five to ten minutes with only the
19 committee members after the meeting, just final
20 words, and then just way forward, appreciate
21 that. As far as the public, thank you so much
22 for joining us, and we look forward for the next

1 interaction. Thank you.

2 CHAIRMAN HUTTMAN: We're not
3 officially adjourned yet, members, but I do have
4 that one task. According to our by-laws, we
5 needed a report from the nominating committee for
6 the Coast Guard for the officer positions.
7 Currently, Mr. Johansson was re-appointed by the
8 secretary and re-appointed as the chair, the
9 vice-chair until 2018.

10 My current appointment is through
11 September 30th of 2017. According to the
12 by-laws, we need a minimum of four names to
13 provide to the Coast Guard for consideration for
14 chairman. If I could ask Mr. Kress to just give
15 us a report of the nominating committee, so we
16 can put that on the record.

17 MEMBER KRESS: Mr. Chairman, Steve
18 Kress, TSAC. The nominating committee considered
19 eight names and voted to reduce that to four
20 names, as required --

21 CHAIRMAN HUTTMAN: Mr. Kress,
22 microphone, if you wouldn't mind.

1 MEMBER KRESS: State my name, Steve
2 Kress, TSAC. Mr. Chairman, the nominating
3 committee received eight recommendations for
4 officers' positions and voted to get us down to
5 the four that are required. Yourself was one, Mr.
6 Johansson, even though already appointed, was
7 another Matt Lagarde and Mike Vitt were the four
8 names.

9 CHAIRMAN HUTTMAN: Great. Thank you
10 very much. I appreciate that. The DFO has that
11 as we move forward with the selections for the
12 next slate. At this point, I will call for a
13 motion to adjourn. So there's no discussion. I
14 have a motion. I have a second, Mr. Fewell. All
15 those in favor, say aye.

16 (Chorus of ayes.)

17 CHAIRMAN HUTTMAN: Then as requested by
18 the DFO, we're now officially off the record, and
19 if the members could just stay around for a
20 couple minutes, we'd appreciate it. Thank you.

21 (Whereupon, the above-entitled meeting
22 was concluded at 3:13 p.m.)

A		
a.m 1:20 7:2 66:14 66:15 137:18	136:1,12 197:11 217:20 220:2,3 227:22	178:10
A/Class 78:10	acceptable 93:6 95:15 107:8	action 135:5 136:14 138:5 147:10 194:11
Abernathy 3:4 9:21 44:3,8,8 48:6,18 48:22 122:21,22 230:18	acceptance 5:9 64:13 65:4 66:3 116:8,10 140:9 197:9	actions 148:22
Abernathy's 11:2	accepted 66:1 75:7 201:17	activate 203:11
abilities 112:22	accepting 197:18	active 2:7 7:21
ability 22:2 161:17 166:20 167:13 222:20	access 11:9	actively 18:6
able 12:16 29:8 30:14,15 41:2 42:9,9,18 56:11 58:12 78:2 82:19 92:15 94:8,8,11 94:14 97:4 98:14 101:17,21 117:3 119:12 131:5 136:13 137:1 165:22 177:2 185:7,13 202:10 203:6 208:16 228:13	accident 36:6 84:4 213:8	activities 19:8 231:11
aboard 67:22	accidents 37:18	actual 7:17 8:1,17
above-entitled 66:13 137:17 214:20 233:21	accommodate 196:21	adapt 103:2
ABs 3:9,17 45:11 46:2 202:21	accommodations 43:6	add 70:17 106:16 118:14 225:15 226:9
absolute 224:7	accomplish 19:1 94:7	added 30:1 78:6 97:8,10 157:6 207:12 226:8
absolutely 26:22 136:15 223:19	accomplished 34:14	addendum 71:1
abstain 142:7 198:8	accomplishments 229:7	adding 112:15 167:11 187:16
abstains 142:10 220:15	account 106:13 109:20 113:16	addition 57:1,7 71:1 184:11 201:16 204:1
abstention 198:10	accrued 179:6	additional 64:3 80:21 81:5 111:17 131:17 140:21 141:9 148:12 154:2 156:22 157:1 176:19 189:1 194:14 217:4 219:11 222:5 226:14
abstentions 65:19 65:22 142:6 198:7 219:4 220:14	accurate 113:14	Additionally 147:12
academy 16:8 172:17 173:2	achieve 33:14	address 11:4 50:14 56:1,4 57:11 58:5 58:12,13 70:11 116:18 153:5 160:12 200:2 201:21 207:15,19 221:16
accept 13:12,14,16 13:21 65:8,12 124:13 127:9 129:18 135:20	achievement 34:22	addressed 60:11 61:22 63:18 76:19 92:17 116:12
	acknowledge 89:8 89:9	addresses 37:16 146:17 160:2
	acknowledged 107:13	addressing 54:4 55:15 62:1
	acknowledges 84:22	
	acronym 55:17 124:22 193:12	
	acronymized 55:19	
	acronyms 73:16,19 75:6 114:10 193:4 193:6	
	act 23:8,18 27:18 88:2 137:6 138:3 177:13	
	acting 22:21 144:6	
		adequate 83:1
		adequately 60:3
		ADFO 44:9,11 168:9 226:13
		adjourn 6:21 231:11 233:13
		adjourned 232:3
		adjust 133:8
		administration 8:12 10:15 12:2,5 27:6 29:19 30:13 30:17 34:18 48:3
		administratum 192:10
		administrative 45:21 64:16 142:12
		administrator 3:2 5:7 22:15,20,22 45:6 226:22
		administrator's 8:12
		admirable 102:10 128:11
		admiral 22:18 136:14 144:2 210:7
		admittedly 31:18
		adopt 54:17 105:18 114:16
		adopted 128:4
		Adoption 5:5 13:10
		advance 24:2
		advantage 10:6
		adventure 114:8
		adversely 37:19
		advice 74:20 104:22
		advisor 17:16
		advisory 1:4 34:1 40:5 42:4 74:18 126:20 137:6 145:19 181:11,12 231:6
		affect 37:19 79:14
		afternoon 64:7 183:20 193:11 215:22

- afterward** 189:6
agency 147:9
agenda 5:5 8:3
 11:15 13:8,10,12
 13:14,21 14:4
 48:9 66:4,10,22
 136:2 137:1,11
 209:8 215:2,3
 221:12 231:5
ago 27:6 39:20
 74:18 106:10
 107:19 163:18
 173:10 174:17
 175:17 229:6
agree 38:3 155:18
 194:8 211:18
agreed 124:5
agrees 192:6,11
ahead 12:19 66:6,7
 66:21 103:14
 124:14 135:22
 151:20 167:8
 196:10 209:3,4
 222:1
airliner 122:10
AIS 80:18 85:7,14
 86:17 94:9,18
 95:1,3 99:15
 100:4,13 106:2
 108:11 110:1,2
 123:12 133:2,9,11
 133:16,17 134:2
AISs 106:3 109:22
 133:13
Alan 3:6 44:16
alarm 188:10
albatross 114:6
alert 10:20 11:1,8
 12:17 18:12
Algiers 161:20
allow 43:8 54:5
 67:21 77:4 79:15
 79:19 137:10
 148:11 213:9
allowed 95:8 173:9
 173:12
allowing 43:5,9
allows 51:17 57:7
 63:12,19 196:17
 217:2
alluded 169:5
alphabet 114:10
alternate 3:4,5
 131:5
alternative 179:18
ambiguous 223:12
amending 107:17
American 16:13
 34:2 35:10 40:3
 41:17 42:12 47:20
 184:15
amount 27:20 39:5
 203:22
AMSA 191:15
anchor-handling
 59:20
Andrie 15:17
anguish 53:15
Ann 2:22 17:7
announced 30:18
 31:3 33:3 189:11
annual 51:14
answer 5:15 55:8
 55:14 61:19 63:16
 142:16,22 144:12
 156:5 157:9
 159:12 162:9
 186:7 195:17
 223:18
answered 162:11
 184:5 224:11
answers 56:21
 168:20 184:6
anticipate 60:21
anticipating 60:15
 60:20
anybody 23:4,6
 26:7 69:8 86:2
 123:1 219:18
 230:21
anyway 118:9
 152:9 193:14
apart 77:8 102:3
APC 92:2
apologize 24:2
 142:12 152:16
apparent 185:11
apparently 154:6
 229:12
appeal 144:18
 147:8,22
appeals 145:16,22
 147:13,17 148:10
 148:10,15,20,22
 152:19 153:2,3
appended 183:3
applaud 189:16
apples/oranges
 97:15
applicable 92:18
 98:1,2,13
applicants 148:11
application 84:15
 87:11,19 146:21
 147:1,4,15,20
 155:19 188:12
applies 97:11
 121:14,15
apply 53:22 54:2
 60:20 76:3 99:10
 161:5 187:18
applying 159:4
appoint 218:14
 219:18 220:7
appointed 22:18
 233:6
appointees 31:11
appointment 220:1
 221:20 232:10
appreciate 12:4,10
 14:16 43:18 49:17
 59:2 64:1,4,12
 72:21 73:2 136:16
 136:19 153:10
 171:12 182:19
 183:11 196:3
 209:1,14 231:13
 231:20 233:10,20
appreciated 59:13
appreciation 42:3
 72:18
apprentice 6:11
 151:11,12,16
 169:15,16,18
 170:2,16,21 171:3
 171:6,20,20,22
 172:3,4,9,14
 199:3,9
approach 25:5
 48:22 111:2
approached 227:12
approaching 211:4
appropriate 26:10
 60:6 72:9 80:14
 174:9
appropriateness
 126:13
approval 130:9
 154:2 155:17,21
 156:10,17
approve 155:14
 156:5,7 157:11
approved 57:20
 74:5 96:2 112:18
 128:1 130:13
 149:3 153:20
 154:1,3 157:12
 177:7 201:14,15
 201:18,20 206:4
 215:6
approving 57:9,12
approximately
 148:19
APU 92:2
architects 40:10
archive 229:17
 230:4
area 40:8 55:21
 80:14 83:1 99:6
 99:11,15 121:4
 154:8 155:4,14
 157:8 161:18,19
 162:13,13,20
 165:17 173:14
 179:17
areas 98:18 99:22
 100:10,15,16
 106:13 121:10
 154:16,18 167:14
arguing 105:7
argument 101:11
 101:17 109:14

119:14 123:22
188:17
argument's 123:22
arguments 92:6
124:5
arises 179:10
armed 29:7
Army 74:13 81:17
arose 50:14
arrangements 76:4
89:18 91:15,20
92:16 93:15 94:16
95:6 111:16
200:17
array 32:10 40:7
articulated 5:11
32:16 66:17 67:5
Ashley 25:17
asked 26:2 56:15
75:16 79:12 85:10
96:6 98:19 115:18
154:5 168:22
183:22 186:9
187:8,16 189:20
193:7 195:4
223:19 225:11
asking 38:12 55:6
119:1 140:15
146:17 155:12
185:6,9 223:4
224:2,7
asks 170:2
aspect 22:1 36:22
97:16 123:6
127:17
aspects 37:14
180:16
assessment 117:9
assets 28:21
assign 217:9
218:18
assigned 215:12
220:22
assigning 194:1
assist 49:2 190:2
226:18,19 228:7
assistance 12:4
45:9 99:7 100:16

111:4 219:11
assistant 16:8
172:19
associate 45:6
associated 6:16
114:10 118:4
167:10 183:2
215:11,19
association 31:2
47:11 59:16
228:12
associations
227:17,22
assume 23:10
assuming 52:4
140:1
astern 6:17 215:11
215:19
ATB 5:12 66:17
67:5,22 70:14,19
160:2 173:12,15
174:13,22 175:3
176:1 177:6,9,17
177:21 183:1
ATBs 67:20 69:18
70:18 158:4,15,16
159:16 173:10,16
173:17,21,22
174:4,12,19,20
175:12 182:22
183:2,6
atmosphere 59:3
attached 109:3
attachment 152:12
attend 51:15 71:16
71:17
attendance 208:3
231:2
attending 12:1 73:3
attention 53:15
61:21 73:17
attorney 45:20
audible 14:2 65:18
65:20 142:4 198:5
219:3 220:12
audience 5:6 14:6
20:15 50:7 58:14
audit 118:7

auditor 97:3 118:2
audits 51:18
August 28:11
184:16
authorities 2:2,17
25:10 154:21
authority 93:21
155:5 162:2
211:12,15 223:15
authorized 223:15
authorizing 166:6
automatic 105:1
automatically
93:12 132:10,13
132:14,15
automation 187:18
188:2,7
available 30:13
64:2 81:14 83:9
90:10,12 105:13
118:1
Avenue 1:19
aviation 122:2,6,12
avoid 97:17
awaiting 61:19
aware 146:4 161:7
182:3
awareness 76:8,13
AWO 3:11,12 4:2
35:14 41:9 44:21
44:22 49:22 59:1
68:2,12,19 71:10
185:15,16 191:15
205:20
AWO's 38:10
205:19
aye 13:21 65:14
141:22 198:1
218:21 220:8
233:15
eyes 13:22 65:15
142:1 198:2
218:22 220:9
233:16

B

B 75:21 78:10
85:17 96:11 101:5

107:3 115:9 117:1
117:14,17 186:17
B&T 2:2,3,4,4,5,6
back 9:8,22 12:3
23:13,19 29:3,10
35:14 48:14 53:7
58:3 66:14 76:11
77:20,22 79:7,9
81:6 84:5 86:1
88:11 90:10,17
91:12 93:19 96:12
98:19 100:2 102:5
103:8 107:19
110:22 113:11
117:6,12 121:5
126:16 127:19
128:12,17,20
129:13 133:16
136:7 137:1,18,22
138:1 140:3,6
142:14 148:12
149:15 150:18,18
151:11 154:3
155:11,13,15,17
156:20 168:4,5
169:6 170:3 179:2
182:5 183:9 186:8
187:20,21 189:3,9
189:20,21 190:4
198:18 202:10
214:19,21 221:19
221:22 222:13
backbone 32:1
background 200:2
backup 76:4 87:12
91:15,19 92:2,16
92:22 93:14,19,22
94:11,15 95:6,11
95:12,15 106:14
106:16,16,17
111:16 131:3,14
132:17
bad 127:4
ballpark 76:16
Baltimore 16:18
bank 91:11 111:12
111:13
bankruptcy 28:8,11

bar 30:19 124:14
barge 2:2 5:11 8:22
 14:12,19 15:2,6
 15:11,14 16:13,15
 17:11 32:1 52:12
 52:13 66:17 67:5
 100:1 133:6,8
 167:8 204:19
 205:10
barges 6:16 9:6
 32:11,16 37:10
 39:4,9 53:12 62:7
 62:8 133:7 178:12
 178:13 190:18
 202:19 205:4,8
 215:11,19 218:20
barging 15:19
base 107:11
based 10:20 75:4
 75:17 77:12
 100:10 106:15
 110:12 117:3
 118:1 120:6
 155:16 156:18
 157:21 176:3
 177:18 195:13
 201:9 225:21
 226:12
basic 207:4
basically 76:2 78:5
 96:22 106:22
 108:8 117:16
 120:9 128:3
 143:17 148:18
 150:20 154:11
 156:1 159:14
 163:13 167:5
 169:10,13 205:13
basins 121:2
 216:11
basis 51:14
Baton 30:20
battery 91:20 92:2
bay 91:3 167:16
bays 160:18
bears 52:13
beat 210:18
Beatty 3:6 47:8,8

beautiful 20:11
becoming 19:14
beginning 38:7
 41:1 42:20 73:21
 158:3
believe 20:6 31:4
 33:12 35:3 39:11
 131:18 154:3
 155:22 207:7
bell 137:22
benchmark 53:1
beneficial 12:7
benefit 42:12
 141:12
benefits 158:9
best 37:18 60:22
 94:5 124:1,1
 226:20 227:9
better 12:8 26:8
 35:2 38:13 69:18
 70:22 96:3 104:15
 124:8 144:8
 179:21 192:18
 209:18 214:5
beyond 68:20
 80:11,22 81:9
 165:4 187:6
big 26:8 74:4 191:9
 227:20
bigger 111:21
bill 22:13 44:8
 85:21
bio 19:9
biography 49:18
Bish 3:6 44:16,16
 173:8 174:16
 175:11 176:5,12
 176:15 177:5
 178:3
Bisso 15:1 153:21
 153:22
bit 8:13 10:5 26:2,4
 57:1 66:6 69:2
 73:10 79:10 80:1
 83:10 95:19
 100:14 107:11
 139:17,18 142:12
 148:15 149:17

156:12 202:5
 209:3
blah 178:13,14,14
board 37:1 38:19
 79:8 121:13
 190:13 205:11
boat 24:18 26:8
 38:20 76:15 89:15
 89:16 92:8 93:10
 93:11 95:14,21
 97:4,22 98:12
 100:7 111:5 118:3
 118:6 123:10
 150:6 200:16
 202:19,22 204:12
boats 62:9 81:16
 84:12 88:4 90:21
 90:22,22 91:10
 99:21 100:22
 109:11 110:21
 111:10,22 112:4
 113:8 126:21
 132:19 204:16
body 12:21 36:11
 71:2 186:14
bogged 76:21
book 121:9 141:8
born 35:13
borrow 212:14
boss 18:19
bottom 121:18
 212:17
bought 84:13,14
 106:7,10 108:2
bounce 59:18
boundaries 154:9
 186:13
boundary 163:12
 165:1,4,13
box 110:20 133:19
break 10:5,6,10
 48:9 66:7,8 99:12
 120:2 137:3,14
 209:5 214:18
breakdown 99:14
 160:20
breaking 10:7
breakout 200:5

Brian 2:15 16:2
 149:9
bridge 37:11
bridges 37:8
Bridging 53:4
brief 11:3 48:12
 55:7
briefed 50:10
briefly 145:16
 149:10 150:13
bring 42:6 56:3
 61:21 63:16
 137:21 222:10
bringing 68:4
brings 161:13
 213:2
broad 40:6 225:17
broadcasts 110:1,2
broke 120:14
broken 119:21
brought 33:21
 40:20 59:16 73:17
 138:4 180:20
 206:21
brown 181:2
browner 31:12
Brownsville 163:21
brownwater 199:19
 200:1
Buffalo 3:15 46:18
build 39:22 85:12
 126:9
builders 40:9
building 24:6 48:18
 48:20 62:7 88:4
 211:13
built 71:2 86:6,7
 93:3 106:5 113:18
 124:12 126:8,21
bulk 89:6 98:3
 101:8,15 124:10
 203:13 208:7
bulkheads 61:9
bunch 125:9
buoys 105:12
burden 41:8 191:11
Bureau 41:18
buried 229:16

business 17:20
22:3 23:5 39:18
49:19 127:4
142:13 205:13
209:7 215:3
buy 85:14 106:3,4,7
108:2,9 109:3
113:19 227:18
buying 92:7
by-laws 221:20
232:4,12

C

C 75:21 85:19,21
96:11 101:8,18
106:18 115:14,17
117:2,14,17
C-PORT 3:7 45:9
C.F.R 99:2 100:20
203:5 204:3
cadet 172:17,18
cafeteria 10:9
Caitlin 3:10 46:4
Caitlyn 4:2 47:19
Caliendo 2:3 15:15
15:16,16 65:9,11
71:15 157:16,17
157:17,20 158:11
159:13,19 160:3
217:14,15,15,21
218:7,19 219:5,10
221:3,4,4 227:13
227:14,15 228:17
call 14:9,13 30:21
31:22 35:20 65:13
83:15,20 84:2
85:6 91:4 95:2
97:15 103:10
108:7 123:13
141:19 180:7
184:16,17 194:12
197:21 214:6
218:20 233:12
called 179:11
calling 32:14 63:14
195:16
calls 56:3 107:16
200:13

Campbell 3:8 47:17
canal 98:4 111:11
120:13 161:20
canals 91:11 107:8
120:8,9,14 121:1
161:20
capability 115:12
133:10
CAPT 3:2,11,12
19:17 44:13 47:12
49:16 59:7 60:8
61:2,16 63:9
193:10 194:7,12
209:17
captain 8:6,7 16:18
18:20 19:9,16
20:14 22:6,16
47:13 49:5,12
58:18,21 59:11
64:1 88:19 124:20
143:16 147:12
193:9,10 195:5
197:1 198:13
209:15,17
capture 44:7
119:17
captured 101:7,8
115:13 128:22
141:3
car 52:18 107:1
Cardone 3:7 45:8,8
care 63:18 64:17
career 168:1
cargo 24:20 27:20
28:3 32:13 39:5
59:20
cargoes 29:11,13
Carpenter 35:9
carriage 5:14 72:3
72:14 77:4 79:19
80:7,11 81:3,4
96:3 98:21 99:9
100:19 101:18
103:11 106:14
114:17
carried 219:8
Carrier 38:10
205:20

carries 52:14,17
81:15 100:7
198:10 225:16
carry 79:18 99:1
100:3,6 102:6
104:1,5 106:15
112:2 118:11,11
167:3 175:18
201:1
carrying 27:19
32:16
cart 228:5
case 23:11 31:12
48:17 55:20 155:4
155:10 156:3
165:12 205:3
cases 41:6 100:21
103:8 130:20
158:22 159:1
167:1
casualty 49:8 84:5
101:20 113:2
115:19 119:4
catch-22 97:18
category 26:11
cause 53:15
caused 143:20
CDR 3:3 4:4 7:5
17:21 22:16 43:3
46:12 48:4,8
231:12
Center 46:13 55:2
144:20 147:2,5,14
147:15,17,18,21
147:22 148:2
165:7 177:22
191:12
centered 101:20
century 34:13
certain 99:8 100:19
109:6 149:19
164:18 184:3
certainly 23:22
24:7,11 28:13
29:18 31:14 33:19
35:3 38:2,4,22
40:6,17 135:15
179:7 191:1,14

certificate 51:21
59:22 118:10
188:4
certificated 60:19
97:2
certificates 57:14
57:15,21 118:12
certifications 90:13
certified 112:18
118:1 161:14
certify 85:16
CG 5:16 143:1
CG-5PC 5:8 49:15
chair 14:20 67:8
139:14 199:5
217:16 218:15
221:1 222:10
232:8
chairman 1:21 2:2
2:3 11:13,20
13:11,17,20 14:1
14:3,7,11,17,21
15:3,8,12,15,20
16:1,6,11,16,20
17:2,6,10,14,18
20:21,21 49:19
58:17 59:8,9
63:22 64:15 65:7
65:10,16,19,21
66:20 69:11 71:6
71:20 72:4 114:4
114:19 116:1,4,5
117:20 118:17
119:20 120:16
121:19 122:20
124:15 127:12
129:2,21 130:16
134:4,6,14 135:18
136:22 137:20
138:15,21 139:7,9
139:12,19 140:12
141:12 142:2,5,9
149:6 150:10
151:21 157:16
160:6 163:4
165:12 166:4,9,12
166:14 168:10,13
173:6 178:4 180:4

- 182:18 183:22
191:12,18 193:1
194:1,10 197:1,8
197:13,16 198:3,6
198:9 202:13
204:4 205:16
206:15,18 207:6
207:22 209:2
214:17 215:1,4,21
216:19 217:17
218:2,5,12,17,19
219:1,4,16,21
220:10,13 221:11
223:9,21 224:14
225:3,20 226:3,11
228:2 229:1,4,5
229:18,21 230:3
230:20 232:2,14
232:17,21 233:2,9
233:17
- chairman's** 5:4
11:19 163:5
- chairperson** 217:9
217:13,18,22
218:7
- chairs** 7:20 73:1
208:14
- challenge** 28:13
29:18 212:21
- challenged** 196:5
- challenges** 24:16
143:21
- challenging** 212:12
- chance** 128:1 136:2
145:17 193:17
- change** 5:12 25:5
66:18 67:6 68:6
107:20 177:3
182:1,2 184:10,11
192:6 212:6 214:9
215:1,7 216:2
- changed** 30:4,8
133:15 146:9
147:8,9 189:13
212:4,5 214:12
- changes** 36:18 62:9
82:4 130:3 145:21
146:10 152:17
- 189:12 216:13,17
224:21
- channel** 225:9
- charge** 22:7 40:6
58:10,13 178:15
189:19 190:21
- chart** 74:3 80:4,5,7
80:11,11,22 81:3
81:4 82:3,17,18
82:21 83:3,5,5,6
84:6 86:12,14,15
86:21 87:17 89:21
92:21 95:19 96:2
99:2,8 100:19
103:11,13,14,18
104:3,10,14,18
105:3 110:9,11
114:17 124:9
- charting** 5:13 9:1
72:2,13 73:22
74:2 75:11,14
77:5 87:1 98:22
102:8 105:10
116:11 124:19
132:12 138:10
139:2 141:15
- charts** 74:12 76:19
77:6 78:16 79:16
81:7,12,13,15
82:6,8,8,15,22
86:2 89:14,16
93:21 94:3,10
95:15,21 99:2
101:21 103:3,4,7
103:15,20 104:17
119:5 122:2 132:2
- check** 229:18
- Chemical** 17:12
- Chesapeake** 47:7
- chicken** 228:5
- chief** 16:10 19:11
49:6 143:12 144:7
- chime** 172:11
- Chip** 22:18
- choice** 88:5,22
158:13
- choose** 109:4
170:13
- Chorus** 13:22 65:15
142:1 198:2
218:22 220:9
233:16
- Chouest** 16:3
- Chris** 2:6 15:9
35:13,18 192:1
206:16 224:15
- chucking** 87:20
- circumstances**
177:1
- cite** 162:16
- cites** 186:6
- City** 47:7
- claim** 172:10
- clarification** 216:16
224:2
- clarified** 169:3
- clarify** 139:17
150:14,16 157:9
- clarity** 224:7
- Clark** 16:22
- class** 75:21,21,21
75:21 78:9 85:4,7
85:13,17,19,19,21
86:11 87:3,9
96:11,11,11,11,20
97:10,12,14,20
101:4,5 106:18
115:9,9,14,17
116:19,21 117:1,2
117:5,15
- classes** 78:21 85:2
- classroom** 98:17
- clear** 115:12 121:13
130:4 131:15
150:17,19 156:13
156:13 190:12
- cleared** 9:4 155:11
- clearly** 23:18 48:17
156:15
- Clearwater** 83:14
- clicked** 77:18
- close** 150:8 203:11
- closely** 115:16
- closures** 61:9
- CNS** 88:19 98:11
- co-chair** 71:14
219:13 220:1,4
221:1
- co-chairperson**
219:13
- coal** 24:20
- coast** 1:1 2:5 7:7
8:16 12:9,17 13:4
18:10 19:3,7,12
19:19 20:4,15
21:1 22:8 24:12
32:7,7 33:4 34:1
35:14 36:14,17
39:21 40:3 41:7
42:5 43:11 44:11
44:14,19 45:2,15
46:13,20 47:13
51:5,10,13,22
52:1,2 53:16
54:10 58:15 59:4
67:19 68:1 71:9
72:16,20 75:17
77:1 79:8 82:11
82:13 84:21 87:4
88:1,2,10 90:8,9
94:7 95:2 97:3
101:18 102:12
103:5 105:11,21
113:4 114:15
115:17 118:19
119:6,22 121:8
122:3 126:15
127:6,21 130:5,13
134:12 142:18
144:3 148:1
157:22 158:2,3
159:20 160:18
161:4 165:15
168:5 169:17
170:2,6,17 171:7
172:8 174:3,11
177:7,12,16
178:19 180:13,16
183:8,10 187:16
189:15,20 190:10
192:13 193:7
197:19 198:18
201:2,16 206:3
207:2,9 210:16

211:3,11 213:17
 215:14 217:4,7
 221:19 222:3,4,14
 222:14,16 223:4
 224:9,20 225:1,4
 225:5,11 226:1
 230:13 232:6,13
coastal 32:14
 109:11 121:2
 132:9 160:16
 164:9 165:16,20
 166:3
coastwise 163:9,16
 163:19 164:1
 165:18 186:21,22
 187:12 189:3,3
 216:10,11
cockpit 122:9
code 5:19 183:15
 183:17 211:13
cognizant 154:11
 154:18
COI 189:2,4 223:15
coin 145:6
COIs 57:17 223:17
Coleman 3:7 48:1,1
collaborations 8:15
collaborative 41:16
collaboratively
 34:9
collect 55:16
collected 185:3
collecting 54:20
collective 36:13
color 204:10
combination 33:22
combinations 5:12
 66:17 159:6
combined 158:7
 159:15 210:13,14
come 9:11 56:1
 60:18 61:15 62:10
 72:11 75:10 96:12
 99:3 100:2 102:5
 105:20 117:6
 135:4 150:3
 156:20 175:9
 177:11 200:6

202:10 214:19
 224:11
comes 25:16 27:18
 89:16 90:9,17,19
 93:2 110:20 125:9
 147:22 154:16
 164:15 226:7
Comfort 158:14
coming 20:10 22:5
 23:1 31:7 38:1
 42:21 58:5,8
 79:13 148:9
 183:12 210:2
command 227:19
 228:10,11
commander 11:21
 11:22 12:11,16
 17:18 22:12 23:3
 44:10 48:4 49:1
 209:15 226:4
commands 226:17
 226:21 227:6,18
 228:8
commas 130:6
 134:10
comment 9:11,19
 23:18 118:19
 127:13 128:7
 134:19 136:3
 168:5 171:13
 172:7 181:16
 184:11,12,19
 192:2 194:4
 209:10 230:15
comments 6:19
 7:15,22 9:9,15,17
 18:13 22:11 43:20
 43:22 57:10,11
 119:19 140:3,6,10
 140:13,22 141:13
 149:22 150:3
 183:9 193:18
 208:16 216:21
 217:5 221:10,14
 221:15 222:6
 223:22 229:1
 230:14,17,18,20
 231:1,3,4,10,14

commerce 30:7
 33:17
commercial 16:13
 18:15 32:13,14
 42:14 49:8 60:14
 62:18 122:10
commitment 35:20
 41:10
committee 1:4,17
 7:16 9:4 12:8,22
 13:3 14:9,15,19
 17:20 18:2 19:5
 34:2 40:6 42:4
 71:4 74:9,16,18
 75:1 79:16 83:18
 96:14 107:12,13
 114:1 125:8
 127:19 128:9,15
 128:16 129:10,17
 130:9 134:20
 135:6,8 136:5
 137:6,7,14 138:5
 138:17,22 140:7,9
 145:19 181:11,12
 181:16 191:20
 193:22 197:9,10
 199:22 200:1,8,12
 200:15 206:20
 207:7,11 208:18
 215:5 216:2,14,18
 217:5,10 219:7,14
 221:1,13,14,17
 222:6 223:5
 224:19 225:22
 230:8 231:6,19
 232:5,15,18 233:3
committee's
 108:18 134:15
committees 19:16
 181:9,13 200:22
common 8:15
 152:6
communicate
 213:18
communications
 83:16
communities 32:6
 108:21

community 43:9
 74:6 75:5 88:16
 93:20 98:1,3
 108:5,16 113:17
 114:12 132:1,8
 133:3
community's
 124:11 132:8
companies 40:7
 45:10 54:10,17
 57:15,16 96:22
 117:3 167:4 170:8
 170:22 188:17
 212:19 213:3
companies' 179:8
company 3:8,22
 14:11 17:16 21:21
 23:10,15,19 44:17
 46:1 47:17 51:17
 95:20 130:21
 132:21 133:6
 161:2 227:5,5
company's 205:13
company-specific
 206:2
comparable 159:8
 159:8
comparatively 39:1
compatible 109:18
competencies
 177:19
competent 213:19
competing 35:6
complaint 126:18
complete 42:2 68:9
 82:15 97:12 131:6
 159:18 166:20
completed 68:7,11
 140:8 178:15
 204:21
completely 68:16
 76:21 83:19 94:21
 125:14 175:5
 228:11
completing 165:20
compliance 3:3 5:8
 16:14 22:8 44:14
 44:20 45:7 49:7

49:15 51:10 60:14
62:18 195:3,8,16
196:15
complicate 167:9
complicated
135:16
complicates
165:19
compliments 25:17
comply 61:20
109:15
component 97:8,10
123:7
components 28:19
92:5
comprehensive
34:5 38:2 40:1
114:20 136:16
137:3 206:7
computer 72:5
84:11,13,13 92:22
93:1,16,17,18,19
104:9 130:21,21
131:22 132:4,21
132:22
computers 84:6
93:13 123:12
131:21 133:6
conceivably 82:3
concern 29:4 139:5
171:18
concerned 29:14
110:18,19,20
concerning 67:3
72:12 198:22
concerns 37:17
50:19
conclude 231:5
concluded 233:22
conclusions
136:18 200:6
conditional 67:20
conditions 39:11
conduct 51:13,18
51:19
conducting 7:18
167:17
conference 34:18

56:3 59:1 83:15
96:15 107:10,15
108:4 109:17
122:7 126:4 129:8
184:16,17 200:13
conferences 24:5
confidence 42:1,18
confirmation 185:7
conflict 110:4
125:22
conform 186:20
conformance 187:8
confuse 79:20
confused 79:22
confusion 155:4
187:3
congested 52:16
congratulate 12:13
congratulations
40:21 135:10
219:6 220:15
Congress 36:7
conjunction 74:22
200:16
connected 24:8
123:10 131:22
consciousness
31:20
consensus 70:3
71:4 225:17
consequences
39:14
consider 36:1
77:10 82:14
107:14 115:18
122:1 131:3 158:4
187:16 192:8
194:1 221:15
222:3,9 223:3
225:11 226:17
227:12
considerable
186:15
consideration
111:20 129:10
223:6 227:11
230:5 232:13
considerations

106:14
considered 52:9
78:20 162:14
163:16 164:1,22
200:10 232:18
considering 61:11
227:8
consistency
144:15 222:22
225:13 228:12
consolidated 20:3
143:22
constitutes 186:1,5
Consultants 17:8
consultation 41:22
CONT 4:1 6:6
contact 147:5
221:7
contained 5:12
66:18 67:6
containers 28:10
28:12
contains 51:9
contention 83:7
CONTENTS 5:1 6:6
context 160:17
continually 41:15
continue 14:4
17:20 22:3 42:7
48:8 66:21 68:16
71:9,11 131:13
136:6 138:16,22
139:22 140:1,3
141:20 142:11
190:5,9,9 200:12
208:5,6,13 213:17
continued 71:7
198:20 200:6
208:19 219:7
continues 204:2
continuing 163:7
167:9
continuous 213:6
contribute 69:10
contributes 32:4
contribution 41:21
control 54:9 81:11
81:18

conventional 159:8
175:1,2,4,5,7
conversations
140:22
cooperation 42:5
coordinate 74:14
144:12 165:6
coordinated 155:14
coordinator 10:14
copies 81:22
copy 77:17,18,19
81:21 104:5 114:5
128:19 129:12
140:19 141:7,9
164:12,13
Corigliano 3:8
47:16,16
corner 111:9
corner's 111:21
Corporation 3:9
15:22 47:2
Corps 74:13 81:17
82:8,10
correct 60:5 103:16
115:6 129:20
132:20 204:12
corrected 80:17
83:2 103:18
correction 192:21
corrections 103:20
140:20
correctly 176:18
cost 96:1
costs 192:9
Council 55:20
193:6
count 43:19
counted 158:21
206:22
counterparts 165:7
180:1
counting 158:15
country 22:9 32:7
32:18 34:4 126:15
126:19,22 127:5
227:21
counts 176:5
couple 11:14,15

43:16 48:10 64:16
 68:15 70:17 73:20
 78:6 80:1 83:16
 88:19 129:4
 149:21 166:16
 189:5 195:1,3
 210:6 233:20
course 20:19 22:12
 33:7 35:21 36:10
 36:18 41:9 57:20
 82:4 87:14 107:7
 119:22 196:3
 204:20 215:6
 216:12 225:16
courses 90:21,22
 91:1,1 153:20
 154:1
court 9:14
Courtney 3:16
 45:19
cover 36:21 63:6
 76:17 99:16
covered 62:19 66:4
 118:7 131:18
 139:6
covers 37:1
crafted 70:12
cram 111:6
create 42:15 213:1
created 111:1
 189:22
creates 180:19
 187:3
creatively 34:8
credential 149:2,3
 162:19 171:15
 172:6,21 173:5
 176:3,14 177:14
 180:22
credentialed 2:13
 163:20 179:5
credentialing 5:16
 5:17 20:2,3,5
 60:17,22 142:17
 142:19 143:1,2,5
 144:4 162:4 164:3
 192:9,20 201:6
credentials 155:6

160:13 192:4
 199:20
credit 159:1,6,9,11
 159:15 163:18
 165:17,22 166:3
 175:3,8
creditable 163:8
 164:8 167:3
crediting 176:17
Crescent 3:20 45:4
crew 62:9,13,14
 63:7 118:8 202:18
 203:3 205:1,18
crews 32:10 38:18
criteria 162:1
critical 33:6,17
 41:21 92:20,21
Crooks 2:19 17:14
 17:15,15 67:7,9
 67:11 69:12,14,16
 69:21 71:7,13,21
 71:22 134:5,6,7
 135:9,19
cross 26:7
cross-connected
 223:13
cross-reference
 187:10
crucial 10:2
current 8:9 19:8
 80:16 141:7 195:8
 196:2 232:10
currently 5:12
 42:13 66:18 67:5
 70:8 83:2 103:16
 137:11 144:1,5
 194:2 208:14
 232:7
custom-built 84:15
customer 144:8
customer's 145:10
customers 28:13
CVC 46:16
CX 88:19
cybersecurity 76:8
 76:10,12,16,18
 123:7,7 140:21

D

D 75:21 86:12,13
 86:15,16 87:1,3,5
 87:6,9,20,21
 96:11,20 97:10
 106:21 117:5,15
 117:17 127:20,21
 128:4
D-9 162:22
D.C 1:20 20:11
 25:11
Dad 26:6
daddy 74:4
damage 37:9 39:17
dancing 181:8,10
dangerous 26:21
dangers 38:17 91:9
 107:2
Dann 4:5 47:6
darkness 178:18
dash 89:11,22
 94:22 108:14
 111:22 122:17
data 80:19 84:4
 86:20 94:8,9
 101:3,5,12,13,19
 101:20 102:6,13
 102:15,15 105:1
 105:12 108:12
 113:3 115:4,8,21
 118:21 119:8,9
 122:11,22 141:9
database 148:4
database.gov
 229:21
date 53:20 79:9
 104:11 118:13
 132:20 140:10
 143:8,8
dating 187:21
daughter 25:17
daughters 25:19
Dave 47:21
David 3:8 25:17
David's 91:13
day 7:10,12 12:12
 24:14 31:21,21
 55:12,12 58:6

64:5 151:8 170:11
 214:16 228:9
days 43:6 138:12
deadline 140:5
deal 67:20 107:21
 145:15 154:19
 160:15 196:1
 205:3
dealing 144:16
deals 144:3
dealt 163:18
death 39:17 52:20
deaths 52:21,22
 53:6
debate 194:4
decade 182:12
decades 27:9
 105:22
decide 100:15
 102:14 103:12
decided 70:16
decision 89:17
 155:20 156:2
deck 205:18
deckhand 170:4,9
 170:11,12,20
deckhands 202:21
declared 28:11
decline 29:15
decrease 27:11
decreased 53:6
dedicated 204:15
deduce 177:17
deduced 173:19
deems 99:8
deep 26:14 42:3
 174:8
deeply 35:10
defeats 94:6
defense 29:5,12
 30:6
define 83:2 100:9
defined 120:10,21
defining 121:5
definitely 26:10
 53:18 57:22
definition 120:11
 120:20 160:20

161:5,9,12,22
 164:15 185:22
definitions 121:10
 222:12
Delaware 47:9
deliberations
 208:17
deliver 29:12
 195:20,21
delivered 21:4
 28:12 194:19
 196:18 210:21
DeLoach 3:8,8
 47:21,21,21
 124:19,20
demand 181:1
 191:10
demise 28:20
demonstrate 97:20
 98:15
demonstration
 31:1
denial 159:14,18
denied 148:21
 149:2
Denmark 108:6
denying 174:7
depart 163:10
Department 1:18
 20:12 24:1 29:12
 29:20 30:12,17
 42:22 47:14
dependent 67:16
 158:21
depending 52:18
 82:4 110:10
 121:15
deputy 22:21
describe 78:8
 115:10 187:18
described 75:22
 83:8 86:20 89:4
 95:16 96:15,17
 101:6 103:12
 140:2
describes 99:5
describing 79:1,2
 87:3

description 85:8
 87:18 160:12,13
deserves 123:21
design 126:2,2
designate 161:17
 162:3
Designated 3:3,4,5
 5:3 7:4
designates 162:7
designation 180:14
 185:21 189:22
 190:22
designed 79:18
 80:5 112:18 126:7
 126:8 133:20
desire 82:14
 133:18
desktop 92:1
detail 21:6 26:2
 80:15 109:10
detailed 37:6
 114:21
details 105:20
determination
 184:8
determine 41:3
determined 70:9
develop 55:18
 85:15 90:5 109:8
 126:6
developed 125:14
 127:5
developing 67:19
 68:18,20 125:16
 125:17 127:10
 136:17 149:18
 182:14
development 18:13
 70:18 90:13
 149:14,17
device 89:9,10
 131:11
devices 125:11
devised 88:17
DFO 66:2 136:9
 137:20 168:8
 215:4,6 230:10
 231:9 233:10,18

DHS 10:14
DHS/FACA 4:2
diagram 133:8
dialogue 12:9
 196:8
difference 19:22
 92:11 160:12
differences 222:21
different 61:7 62:6
 67:16 70:19 76:6
 84:9 91:16 100:11
 110:6,14,15
 111:20 116:8,8
 118:13 121:3,6,7
 121:10 122:5
 123:9,14 125:14
 143:16 149:3
 174:22 175:14
 178:1 180:16
 187:14 188:6
 208:11 214:9
 227:6
differently 104:12
 110:21
difficult 24:6 39:12
 192:5
difficulties 190:15
difficulty 186:15,18
 188:1 189:6
digest 63:20
digging 88:6
diligent 13:2 72:19
dimensions 133:12
 133:15,18
dining 48:15
directed 139:13
direction 107:6
 125:14
directly 28:16
 148:1 222:16
 230:21
director 3:2 5:8
 14:18 16:13 44:14
 48:2 49:14 143:18
 143:20 144:1,16
 144:19
directors 143:16
disagree 151:10,17

disagreement
 175:9
disagreements
 151:7
disagrees 117:8
disappeared
 209:22
disaster 36:6
disconnect 144:9
 174:3,11
disconnects 185:2
 185:12
discourse 190:10
discretion 134:15
 135:7
discuss 149:12
discussed 10:19
 70:2 141:4 184:20
 202:2
discussing 44:1
 138:6
discussion 7:12
 21:12 69:16
 130:18 131:19
 138:2,8 139:3,20
 141:2 150:18
 182:22 197:18,21
 210:4 218:8,13
 220:1,5,6 221:13
 223:22 225:21
 228:6 230:5
 233:13
discussions 21:3
 68:19 92:6 107:12
 206:20
disparities 189:1
dispatching 130:21
display 74:3 81:7
 109:20 133:9
displayed 133:19
displays 87:17
dissemination 13:6
distinguished 8:5
 11:17 49:4
distributed 113:22
district 2:16 45:2
 55:22
Districts 2:2

diversity 227:4
division 44:20
 145:14,17,18
dock 100:1
docket 184:12
docking 2:7,9
 16:19 32:12
docks 51:15
doctor 148:14
document 34:5
 68:21 75:16,18
 76:1 77:16,21
 78:4 86:20 87:15
 89:5 95:17 117:4
 130:12 136:7
 138:13,18 139:16
 141:5,6 157:5
 195:19,21 207:3
 223:16 224:9
documentation
 62:16 119:6
documented
 117:20 118:1
documents 11:9
 77:22 78:2
doggedly 133:4
doing 11:10 29:21
 30:9 34:20 54:19
 100:5 104:12
 110:7 145:7
 146:10 153:2
 192:17 211:7
 213:1,3,12 214:10
 214:14 223:6
dollars 30:10 125:7
 127:10
domain 188:19
 189:12
domestic 44:19
 109:12
don'ts 102:15
DONALD 2:9
door 77:3,6 211:19
 211:19,21 212:2,7
dos 102:14
double-edged
 173:13 174:10
 175:20

dovetail 163:6
Dow 17:12
download 77:16
 78:2 132:11,12,13
 132:14,15
downloading 76:19
downstreaming
 167:7,15,17,21
 168:2
downward 53:11
draft 56:9 68:3 69:6
 225:22 226:1
drafted 150:8
 197:11
drafters 161:10
drafting 35:11
 153:2,3 180:1
 181:14
drag 101:2
dramatic 29:15
draw 53:14
drawing 79:7
drawn 149:16
dressed 55:3
drills 203:16,21
drive 126:18 132:3
 132:4,17 148:18
drives 23:13,16
drop 100:1 127:7
 133:6,7
drum 210:18
dry 25:15 51:15
dual 69:19 70:5
dual-mode 70:13
 71:5
due 79:9
duplication 144:22
dwindles 28:14
dynamic 25:6 195:9
 195:12 213:13

E

E.N 15:1 153:22
eager 103:2
ear 209:9 222:8
 226:16
earlier 20:16 25:19
 26:18 66:9 138:6

187:1 194:17
 195:6 212:14
 213:4 216:21
early 21:17 35:12
 147:6 209:12
easier 73:11 113:14
 120:18 225:3
easily 113:6 128:3
 183:3
East 16:5 84:21
easy 38:17 135:14
 136:12 180:17,18
 181:20,22 187:11
 224:10 225:15
eat 123:14
ECDIS 74:2 75:13
 77:13 85:5,6,9,12
 85:14 95:15 97:11
 97:14 98:10 108:8
 113:9,10,10,13
 116:22 117:1,17
echo 131:11
economic 28:19
 29:17
economical 125:18
economy 32:5
 37:22
ECS 5:14 72:3 74:1
 74:1 76:19 80:10
 80:22 81:2 87:9
 87:10,16 88:3
 92:20 94:20 95:4
 95:7 96:1 98:21
 100:7 103:9
 109:12 110:12
 111:11 114:18
 131:4 133:9,21
 134:1,3 138:6
 226:7
ECSs 94:22 95:17
 95:18 133:14
Eddie 45:3
Edison 16:3
edition 80:17 81:10
 81:17,20 82:1
editions 103:17
EDWARD 3:20
effect 42:7 50:16

61:12,15 124:7
effected 33:12
effective 56:8
effectively 54:5
 55:19 57:4 62:11
 116:20
efficiency 144:22
 145:8
efficient 125:18
efficiently 73:1
effort 33:19 41:16
 87:3 195:10
 198:20
efforts 8:9 18:14
egg 228:6
eight 53:10 56:16
 157:11 182:8
 232:19 233:3
either 37:10 51:19
 60:9 95:4 103:17
 115:7 146:16
 148:21 163:9
 176:17 191:1
election 31:7,10
electric 75:14
 108:18
electrical 123:9
electronic 5:13
 8:22 72:2,13
 73:22 74:2,3,21
 75:11 76:15 77:5
 79:16 81:13 82:7
 84:6 86:15,22
 89:21 92:21 93:8
 99:2 102:7 103:3
 104:7,22 105:10
 116:10 119:8
 122:2 124:19
 139:2 141:15
 179:8
electronically 82:9
 104:2
electronics 138:9
electrons 110:4
Electrotechnical
 75:1
element 30:6
elements 128:3

- 152:6
eleventh 125:8
elide 37:9
eliminated 177:8
eliminates 70:13
elimination 88:22
email 120:17
146:17,19 152:14
153:4 166:7
emailed 216:9
emails 200:13
embarrassingly
27:16
embrace 104:20
211:10
embraced 38:6
emergency 37:5
48:17
emphasis 37:12
emphasize 52:6
emphasizing 37:13
eMSI 80:19 86:19
94:8 105:1,12
emulating 25:7
34:12
eNav 94:7 96:14
107:10 108:4
109:17 122:7
129:8
enclosure 185:17
enclosures 70:17
70:22 194:22
encourage 7:19
18:7 48:10 63:9
71:17 192:13
208:5,13
encouraging 31:16
Endeavor 12:20
ended 109:16
endorse 88:20
225:8
endorsed 96:15
endorsement 12:21
201:7,8
endorsements 6:10
155:8 199:1,7
202:17
endorsing 227:10
- enforcement** 49:7
189:7
engage 43:8 228:3
engaging 114:11
engine 203:17
engineer 172:19
188:14 190:21
engineering 16:9
16:10
engineers 2:13
60:3 185:14
England 164:19
enhances 32:6
enjoy 214:16
enjoyable 199:13
ensure 12:20 37:21
216:21 220:19
ensures 29:6
ensuring 50:11
enterprise 31:17
entertain 65:3 69:8
197:10 217:20
225:22
entire 27:3 28:6
41:13 132:19
166:21 168:1
environment 25:2
33:15 45:6 168:2
environmental 7:8
19:11,20 33:1,9
37:17 42:10
equal 106:18 112:5
equipment 37:5
74:21 76:15 77:10
78:9,17 80:21
83:13 84:16,17
85:11,16 86:4,5,7
86:7 88:6,17 90:3
90:4,5,6,12 91:18
100:6 101:15
105:8 106:9
107:14,18 109:4
111:8 112:10,12
112:15,17,21,22
113:18 124:10
130:15 131:1,7,9
131:12,17 161:14
175:6 187:1 203:8
- 203:19 206:13
223:18
equipment's 85:1
109:10
equipped 117:16
175:12
equivalency 80:4,6
81:1 82:17,18
86:12,14,21
105:18 110:9,11
192:15
equivalent 116:22
era 82:12
Eric 2:2 14:18
20:21 140:14
Ernie 166:12
errors 152:5,15
153:12
especially 20:14,20
21:3 28:7 63:10
226:22
essential 28:18
essentially 35:13
199:18 203:7
established 59:3
151:11
establishing
154:17
etched 53:20
European 108:21
evaluate 89:17
177:13
evaluation 117:5
173:1 174:22
evaluations 146:15
evaluators 165:2,9
177:22
Evansville 3:18
45:17
event 131:4
eventually 68:5
everybody 11:22
19:18 20:10 22:4
50:22 58:18 67:12
79:20,22 81:15
84:22 90:15 91:21
104:17 192:6,11
193:11 204:7
- 210:1 214:5,7,7
everybody's 84:18
92:2 98:22
everyone's 52:12
evidence 178:18
ex-Coasties 19:4
exact 153:7
exactly 34:14,21
85:19 104:14
124:4 126:16
128:15 186:12
229:8
exaggerating 31:22
exam 98:7
examine 190:5
examiners 167:5
example 18:17 35:3
187:7 188:9
190:17 211:18
exams 51:16
exceed 212:19
exceeding 213:22
Excellent 221:11
excepted 100:17
exception 113:2
219:5
exceptions 162:21
163:2
exchange 43:9
excuse 184:5
executive 8:6 18:20
193:3 209:10
exempt 99:8
exempted 169:2
exemption 100:18
exemptions 99:15
exercised 36:2
exhausting 35:1
exhibited 136:17
exist 79:1 106:11
115:17 125:13
existing 54:2 58:2
63:5 136:6 167:2
exists 79:2 105:7
194:2 207:13
exits 48:16
expect 189:5
201:11

expectation 201:8
201:21 202:9
expecting 101:11
expediently 198:18
expendable 31:9
Expendables 31:9
experience 200:2
experiences 18:7
expert 7:22 19:14
43:20 55:3 169:8
expertise 41:21
46:13 55:2 199:22
experts 24:8 58:5
explain 73:14
156:18 158:11
explained 26:1
explaining 88:3
explains 87:15
223:16
explanation 224:6
exports 27:15
express 30:21 42:1
42:3
expressed 220:17
extend 25:8 72:18
164:17,21
extended 137:10
extension 79:11
154:5
extensively 22:10
extent 69:7 187:9
externally 51:19
extra 80:8 131:1
eyes 164:1

F

fabulous 136:15
FACA 10:14,14,17
11:11 21:10,11
74:18 137:4,9,15
138:1 194:8 196:7
196:17,22
FACA-related
19:15
fac.gov 229:19
facadatabase.gov
229:20
FACAs 210:11

face 162:11 202:7,8
facilities 46:21
48:13,21 49:9
facility 48:15
facing 24:16
fact 23:12 28:8 34:7
67:14 75:9 112:16
121:17 124:10
155:15 174:19
175:13 182:5
214:14 220:22
factor 51:8
fails 91:12
failure 92:20 131:4
failures 131:9
fairly 191:4
faithfully 103:13
133:19
fall 1:8 65:13 75:8
79:9 99:13 110:5
211:16 231:6
falls 85:8
familiar 28:8 51:12
52:12 212:10
familiarization
179:6
fancy 93:15
far 112:8 113:21
130:2 154:17
175:22 176:7
181:20 189:21
231:21
fast 194:5
faster 157:10
fault 157:15
favor 13:20 65:14
70:13 141:22
197:22 218:21
220:8 233:15
feat 35:22
features 113:15
February 77:7
Federal 3:3,4,5 5:3
7:4 135:21 137:6
183:15 186:6
feed 108:11 196:22
feedback 7:22
54:20 63:12
129:13 136:7
195:14 196:6
208:16
feeding 95:4
feeds 94:20
feel 10:8 11:5,8
63:10,13 70:22
115:14 123:15
feels 25:15 87:21
94:1
feet 32:11
fellow 223:20
felt 97:17 128:10
female 48:14
Fewell 2:20 17:10
17:11,11 202:15
202:16 233:14
field 35:6 118:20
fifth 45:2 49:22
fighting 86:11
203:16 206:13
figure 76:2,3 78:3
79:4 88:7 89:19
91:7,8 114:8
figured 99:9
figuring 188:1
file 170:5
filled 88:15
filling 125:17
131:15
final 18:10,11 35:1
49:4 76:22 110:7
110:17 114:4,5,5
117:11 120:6
121:16 129:18
134:21 135:5,5,20
136:1,13 141:21
147:9 198:11
202:11 208:8,20
231:8,19
finalize 114:14
129:14,15
finalized 129:22
finalizing 129:8
finally 9:4 75:9
find 21:2,8 35:22
83:13 88:8 102:4
115:5,7,21 161:4

187:12 189:13
210:10 215:15
229:16,22
finding 114:12
225:6
fine 62:20 63:4
finger 84:17
finish 182:8
finished 67:17
fire 20:8 203:12,16
205:18 206:9,10
206:13 211:13,20
firefighting 6:8 9:1
37:4 150:15,22
151:3,5 152:5
156:14 168:21
169:1 198:22
199:6,14 203:8
204:20,21 205:2,4
207:5 208:2
firewall 133:13
first 13:11 18:3,5
30:4 34:5 50:14
54:19 56:7 61:11
61:14 64:8 66:11
67:2,15 80:4
128:13 129:9,9
151:8 183:13
184:2,7,8 185:5
195:10 198:12
fishing 109:11
fit 79:5 85:21 111:8
117:9 226:6
fits 37:16 87:12
122:16 128:5
five 52:3 97:19,22
98:8,17 178:21
179:3,20 231:18
fix 79:21 82:5 91:7
133:21 152:11,11
152:16 153:13
180:17,19 182:13
fixed 134:1 203:12
203:12
fixing 104:22
flag 27:1,7,13,20
29:6 70:8 75:4
205:4

flagged 28:4
flags 190:17
flat 159:14
fleet 26:11 27:1,7
 27:12 28:14 38:20
 51:3,5 70:8 99:18
 126:6 132:19
Fleeting 16:22
fleets 99:19
flew 122:8
flexibility 217:2
 226:14
flip 145:6
flood 81:11,18
floods 82:5
floor 33:6 65:12
 114:22 138:16
 139:21 141:18
 194:11 212:19
 217:11 218:18,18
 220:3 223:5
 230:22
Florida 83:15
 116:18 163:22
 164:18
flush 213:14
flux 129:7
fly 122:13
flying 31:18
focus 152:19
 211:10 213:10
 214:2,8
focused 71:3
focusing 21:15
 125:1
folks 12:9 58:14
 170:13 171:1
 181:2 196:20
 220:16
follow 48:18 73:19
 96:21 116:22
 117:13
following 63:16
food 10:10
foolishness 192:4
foot 26:7,15
force 29:2
forced 36:7

forces 29:7
forcing 167:4
forefront 230:12
foreign 23:10
 108:21
forethought 36:2
forget 118:15
form 93:1 123:11
 134:21
formal 77:7 200:8
format 102:16
 110:2,3 129:18
formed 68:2
formula 34:10
forth 37:17 43:12
 77:9 127:8 196:4
fortunate 193:2
forward 9:11 18:4
 18:11 22:11 34:20
 36:11 42:10 64:6
 71:7,11 82:11
 129:5 130:5,15
 136:4,12 138:9,13
 140:7 141:17
 142:11 183:5
 198:16 200:3
 207:14 208:19
 210:17 217:8
 219:6 221:2
 231:15,20,22
 233:11
forwarding 197:19
Foss 3:10 46:4
found 64:21 85:2
 149:11 185:22
 186:8 225:12
founding 29:3
four 27:6,12 34:17
 80:12 85:1 232:12
 232:19 233:5,7
fragmented 228:20
framework 195:12
Francic 3:9 45:11
 45:11
frankly 24:15 53:4
Fred 3:19 45:13
free 10:8 11:8
freight 27:14

175:19
frequently 25:13
 56:15
friend 35:8
friendly 113:6
 224:9,9
friends 113:8
front 26:5 49:22
fruition 40:21
frustration 71:8
fuel 189:19 192:17
fueling 180:11,18
full 7:6 13:8 42:1
 58:3 62:13 105:18
 129:10 139:16
 140:9 143:9
 158:18 159:9
 190:18 197:9
fully 21:19 223:8,19
function 80:21 87:2
 92:16 102:7 155:7
 212:5
functional 89:3
 110:8,12
functionality 133:5
functions 62:7
 110:14 145:10
 177:8
fundamentally
 100:8
funding 30:11
further 102:11
 121:19 124:16
 127:13 129:2
 136:14 138:7
 139:1,2 160:6
 173:6 178:5 180:4
 186:8 189:17
 197:17,21 202:8
 220:1,5,6
future 62:2 129:16
 224:19

G

G&H 14:11 153:21
Gallion 3:9 47:1,1
Galveston 167:16
gap 207:8

gas 16:4
gate 171:18
gateway 151:12,13
gauntlet 182:20
gavel 137:22
general 2:21,22
 7:16 9:10 10:8,12
 17:5,9 43:14,17
 44:5 46:11 59:11
 69:14 84:19
 100:14 124:17
 127:14 129:3
 134:18 141:13
 173:7 197:2
 199:12 208:3
 220:16
generalized 146:18
generate 43:10
generated 190:8
generation 30:16
gentleman 23:7
gentlemen 220:15
geographic 40:8
 99:6,11 154:9
geographic/limited
 121:4
geographical 157:8
George 3:14 46:8
getting 56:9 57:16
 83:5 112:17,19
 117:6 130:6 132:3
 150:7 153:1
 155:17 181:18
 196:11 228:9
giant 192:19
Gifford 3:2 8:8 22:6
 44:13,13 49:5,12
 49:16 58:18,21
 59:7,11 60:8 61:2
 61:16 63:9 64:1
 143:16 147:12
 195:5
give 12:5 58:20
 66:10 72:11 92:14
 149:20 150:2
 155:22 157:1
 165:17 168:20
 174:22 175:7

183:13 186:7
 196:17 200:9
 232:14
gives 31:15 148:18
 162:2 210:15
 226:14
giving 10:15 144:8
 169:9 175:2
globally 28:3 29:6
go 25:16 41:2 50:11
 51:13,16 56:14
 57:7 58:3 61:12
 64:22 66:7,21
 70:5 73:13,20
 91:12 93:19 95:20
 97:19 98:5,6,7
 99:22 100:1
 103:14 106:3
 108:2,9 109:2,4,9
 113:20 116:15
 117:11 128:12
 130:9 132:5,10,18
 133:16,21 146:16
 147:17 148:12
 151:20 155:13
 167:5 168:3,4
 169:6 170:4,10
 173:14 179:2
 182:1 184:22
 187:6 195:20
 209:4,19,21
 221:22
goal 33:14 35:4,21
 68:4 170:9 200:21
God 50:21
goes 29:3,10 80:9
 80:10,10,21 84:5
 94:13 95:1,2,9
 111:11 123:8
 126:16 147:1,20
 147:21 172:18
 202:21
going 8:2,8,12,14
 8:15,17 10:13
 11:2,3,6,14 18:9
 19:10 20:1 21:12
 22:9 23:1 24:5,10
 30:19 31:1,4,11

33:8 34:19 40:14
 41:4,7,15,20
 42:11,15 43:11
 48:8,16,19 49:11
 50:11,13,20 51:2
 55:2,4 59:6,18
 62:15,16 65:2
 66:20 68:3,14
 70:21 71:2 72:4
 72:11 73:10,12,16
 74:2,13 75:3,6,19
 75:20 76:1,3,4,7,9
 76:13 78:10 79:3
 79:4,5 81:9 82:1
 83:10 85:12 89:20
 90:5,8 92:7 94:10
 94:12 95:10,19
 96:18 98:12,16,19
 100:2 101:2
 102:12 103:17,19
 106:16,19,20
 107:2,6,10,20,21
 108:1 109:9 110:7
 110:14,22 111:6,7
 111:8,12,14
 113:17 114:13
 117:11 119:14
 120:1 123:18
 124:22 126:21
 127:2 135:13,20
 145:7 146:11,12
 147:11,13 149:14
 158:8 160:8 163:1
 169:17 170:13
 180:7 182:1,13
 184:22 186:7
 192:7,10 193:9
 194:14,22 195:17
 195:20,22 200:3
 200:11 202:4
 203:6 206:3 209:4
 209:7 210:11
 211:4 213:6,7
 214:13,18 215:8,9
 218:9 227:19
 231:9
good 7:5 10:10
 11:12 14:17,22

15:4,9 19:2,17
 23:21 35:2,7,8,8
 43:12 44:18 45:5
 46:10 47:12 49:18
 59:14 67:11 68:10
 84:2 109:5 125:16
 135:11 149:11
 157:18,19 183:20
 184:19 189:14,15
 193:11 202:6,13
 215:21 218:11
 219:17 223:3
 231:14
goodnight 25:18
google 64:22
gotten 60:15 76:21
government 80:14
 83:1
GPS 94:19 104:21
 108:12
GPS-enabled 87:17
grab 9:12
grabbing 89:18
graduate 82:15
grandfathering
 150:14 169:9,12
 182:15
grant 156:20
 158:17
granted 148:20
 154:6 156:19
granting 156:22
grants 30:10,18,19
 31:3
great 2:3 12:22
 18:8,10,22 19:2
 20:20 21:6 42:17
 43:2,4,6,10,21
 49:3 115:3 116:5
 127:18 162:13,14
 163:1,14 168:19
 193:21 205:3
 210:4 212:17
 216:11 223:7,9,10
 227:3,15 228:18
 231:15 233:9
greater 43:12
 210:15

greatly 184:15
greener 31:11
Greg 3:18 45:17
gross 185:9
ground 112:8 130:2
 130:2
group 3:17 15:18
 45:12 47:4 49:22
 55:21 67:16 68:2
 68:9,12 69:4
 71:14 74:19 75:15
 121:3 125:2
 126:13,20 134:21
 141:10 144:5
 168:19 180:10
 196:13 202:8
growing 25:1
GSA 42:22
guarantee 205:9
Guard 1:1 7:7 8:16
 12:9,17 13:5
 18:10 19:3,7,12
 19:19 20:4,15
 21:1 22:9 24:12
 33:4 34:1 35:15
 36:14,17 39:21
 40:3 41:7 42:5
 43:11 44:11,15,19
 45:2,16 46:20
 47:13 51:5,10,13
 51:22 52:1,2
 53:17 54:11 58:15
 59:4 67:19 68:1
 71:9 72:16,20
 75:17 77:1 79:8
 82:11,14 87:4
 88:1,3,10 90:9,9
 95:2 97:3 101:18
 103:5 113:4
 114:15 115:18
 118:19 119:6
 121:8 122:3
 126:15 127:6,22
 130:5,13 134:12
 142:18 144:3
 148:1 157:22
 158:2,3 159:20
 161:4 165:15

168:6 170:2,6,17
 171:7 172:8 174:3
 174:12 177:7,12
 177:16 178:19
 183:9,10 187:16
 189:20 190:10
 192:13 193:7
 197:19 198:18
 201:2,17 206:3
 207:2,10 210:16
 211:3,11 213:17
 215:14 217:4,7
 221:19 222:3,4,14
 222:14,16 223:4
 224:9,20 225:1,4
 225:5,11 226:1
 230:13 232:6,13
Guard's 46:13 94:7
 102:12 105:11,21
 169:17 180:13,16
 189:15
guess 73:12 127:1
 172:8 206:17
 207:19 209:18
guessing 157:3
guest 49:5
guests 8:5 11:17
 44:5
guidance 57:6 68:3
 68:4 72:20 75:17
 88:13 96:10,22
 98:20 101:16
 106:1 113:1 115:8
 115:12 117:13
 121:13 176:20
 190:11 198:14,17
 225:4 226:12
guide 36:11 48:19
 133:17
guidebook 57:5
 64:5 193:18,21
 194:17 195:2,8,9
 195:15,16 196:6
 196:15 198:15
 210:21 224:2
guidelines 105:20
 105:22 109:20
 146:14

Guidry 2:15 16:1,2
 16:2 65:6,7 149:8
 149:9,9 220:2
gulf 16:5 91:3
 106:20 120:12,22
 161:1 163:8,19
 164:17
guy 92:7 100:7
 118:10 122:7
 126:17
guys 27:22 55:6
 71:11 74:8,11
 89:7,13 93:3
 100:16 103:9
 108:5,6,13 113:7
 120:15 122:6,9,13
 122:17 125:10
 126:11 132:9
 146:1 149:4 161:7
 180:11 228:7

H

half 58:3 125:8
 150:3
hall 48:15
Hampton 30:22
hand 9:22 56:4 79:5
 189:8
hand-held 87:16
handle 23:14 62:15
 190:16 194:3
 205:4
handled 82:19
handles 190:18
handling 32:12
 76:18
hands 54:9 130:12
hands-on 206:13
Hanjin 28:8
happen 53:13
 54:15 61:4 103:6
 192:22 201:3,4
happened 23:4
 29:13 53:10 61:9
 133:11
happening 172:2
 173:19
happens 110:4,19

135:16
happy 35:15 49:2
 124:21 210:6,11
harbor 2:8,10 16:19
 39:3 216:3 226:18
 227:17 228:7
harbors 32:15
 37:19
hard 12:14 29:19
 41:1 55:6 73:2,19
 84:16 94:3 95:5
 102:22 198:19
 209:14 213:13
Harden 3:10 20:6
 58:8 137:13
 142:11,19,20
 143:3,4 149:7,13
 150:16 152:1,2,13
 153:9,18 154:15
 156:7,11,16
 157:13,19 158:10
 158:12 159:18,21
 160:4,7 161:8
 162:8 164:12
 166:2,7,10,13
 168:8,12,16
 171:12 172:16
 174:14,18 175:22
 176:7,13,22
 177:20 178:5
 179:13 180:5
 181:6 182:10,19
 184:3 190:7
harder 150:4
hardware 37:14
 78:15,18 85:22
 89:6 113:2
Hardy 3:10 46:4,4
harm 33:14,15,16
Harvey 161:20
hauling 62:12
hazardous 178:12
hazards 91:5
head 26:15 172:1
headed 200:10
headquarters 1:19
 5:16 7:8 12:10
 19:12,19 42:22

44:12,15,19 45:16
 55:17,21 58:9
 142:18 143:1
 144:3 145:1
 147:19 148:1,11
 148:15 193:7
heads 79:10
health 32:6
healthy 42:16
hear 18:6 20:1,5
 21:5 58:22 75:6
 141:3 156:4
 184:21 193:13
 198:21 199:15
 204:7 210:7,12
heard 21:13 58:19
 126:3 157:22
 180:15 184:7
 190:7 222:7,11
hearing 69:13
 138:15 142:5
 192:2 197:5,20
 198:6 220:5,13
 231:2
heartland 32:8
heavy 12:19 37:11
held 150:20
help 23:15 58:14
 190:3 199:14
 210:20 213:18
 214:1 218:10,13
helped 20:17 179:9
 184:14
helpful 177:1,21
 196:9
helping 41:10
helps 110:21
Hi 44:21
hiccups 96:8
high 56:6 152:7,8
high-quality 92:4
higher 175:16
 213:10
highest 214:2
highlight 18:1
 20:13 21:8 31:16
 50:4 210:6 222:20
highlights 73:13

highway 30:18
hire 62:12 170:22
historic 179:13
historical 190:4
historically 32:21
history 27:4 28:6
 29:10 67:18 70:18
hitting 134:1
Holbrook's 25:17
hold 150:20 171:20
 172:4,20 173:4
 190:22 191:2
 209:9
holding 23:13,19
 86:1
holds 148:15
hole 88:13 93:8
holes 125:17
Holiday 158:14
home 118:15
Homeport 11:1,4,9
 64:21,22 65:1
 128:19 135:2
 196:20 220:20
honest 60:16
honestly 96:1
 101:14 102:3
honored 24:7
hook 93:18
hooking 72:5
hoops 144:14
hope 31:12 43:1
 56:20 57:10 114:4
 157:13 202:11
 223:20
hopeful 69:3
hopefully 43:21
 63:20 114:16
 130:15 202:6
hoping 69:5 148:17
 200:19 224:8
horse 228:5
horsepower 188:14
host 37:16 43:7
 129:16
hosted 184:16
hosting 12:2 43:5
hosts 20:12

Hotel 158:13
hour 50:18 58:4
 125:8
hours 175:14
 178:18 200:4
house 117:5 180:2
Houston 3:11 21:10
 41:17 44:22,22
 45:12 46:19 47:2
 84:21 95:22
 100:11 211:5
how's 26:6
huge 41:8 88:13
 90:11 180:19
 181:1,1 192:8
humans 33:14
humor 25:14,16
 26:4
hundred 149:22
hundreds 34:3
hung 28:10 89:5
 102:21
Huttman 1:20 2:2
 11:14,20 13:11,17
 13:20 14:1,3,7,10
 14:21 15:3,8,12
 15:15,20 16:1,6
 16:11,16,20 17:2
 17:6,10,14,18
 49:19 58:17 59:9
 63:22 64:15 65:7
 65:10,16,19,21
 66:20 69:11 71:6
 71:20 72:4 114:19
 116:1,4 118:17
 121:19 122:20
 124:15 127:12
 129:2 130:16
 134:4,14 135:18
 136:22 137:20
 138:15,21 139:7,9
 139:12,19 141:12
 142:2,5,9 149:6
 150:10 151:21
 157:16 160:6
 163:4 165:12
 166:4,9,12,14
 168:10,13 173:6

178:4 180:4
 182:18 191:18
 193:1 194:10
 197:1,8,13,16
 198:3,6,9 202:13
 204:4 205:16
 206:15 207:6,22
 209:2 214:17
 215:1 216:19
 217:17 218:2,5,12
 218:17 219:1,4,16
 219:21 220:10,13
 221:11 223:21
 224:14 225:3,20
 226:11 228:2
 229:1,4,18,21
 230:3,20 232:2,21
 233:9,17
Hydrograph 83:4
Hydrographic
 74:10,14

I

Ian 3:17 46:2
idea 127:7 148:19
 206:21 213:1
 223:7,9,10,20
 227:15 228:18
ideas 128:14,16
 200:9
identification 105:1
identified 56:5 85:2
 116:19 129:1
 184:3,18 185:2,12
 185:15 186:4,10
 187:14 207:8,15
identify 130:20
 152:14 153:4
 154:14 177:2
 186:13 223:2
identifying 118:7
 163:7 182:15
IEC 77:22
IHO 74:10 77:22
 83:4 87:15 109:20
Ill 184:10
Illinois 31:2
immediately 127:7
 137:9
IMO 74:6 78:1
impact 146:5,8
 152:20 201:10
 207:3
impatient 69:2
implement 54:6
 213:15
implementation
 5:18 8:9,21 33:8
 40:16 41:2,9,22
 64:9 143:19
 145:15 183:14,17
 184:1 196:4 197:4
 197:20 198:13
implemented 21:19
 41:14 55:9 213:5
implementing
 54:20
implication 154:8
 155:17
impliedly 154:7
import 189:18
importance 193:21
 210:19
important 21:1
 33:11 37:13 52:6
 100:8 210:22
 211:8
importantly 33:16
 36:2 41:6 42:14
imports 27:15
impossible 103:21
impression 205:1
impressive 34:6
 36:1,20
improve 18:15
 38:13 148:6
in-depth 137:2
in-house 97:1
 117:2,18
inactive 68:17
inappropriate
 147:6
inattention 39:16
incentivize 54:7,16
inception 35:12
incident 53:12

202:20
incidents 53:11
 118:22
include 107:18
 161:1 200:19
 201:15
included 117:14
includes 27:15
 56:18 120:12,21
 203:4
including 31:6 37:7
 120:10 121:1
inclusive 40:7
inconsistent
 155:19
incorporate 185:16
 208:17
Incorporated 15:17
 47:9
increase 51:4
increases 28:21
 51:6
independent 96:13
 109:1 117:12
individual 152:21
 171:2
individual's 146:22
individuals 63:7
 176:20 179:16
 204:18
industry 13:7 14:12
 14:14 15:2,7 16:4
 16:15 21:2,14
 24:8,9,15,22 25:1
 25:3,7 26:15,16
 26:19 31:5,6,21
 32:2,3,20 33:6,10
 33:13,17 34:11,20
 35:7 36:3,9,14
 38:6,12,13 39:21
 40:13,19 41:14
 42:6,11,16 43:13
 49:22 52:7,11,20
 52:21,22 53:2,9
 53:16 59:4 77:11
 77:12 78:20 84:8
 84:20 88:21 89:2
 89:6 101:9 102:20

112:11 122:19
 125:19 143:10
 172:13 173:20
 174:4 176:16
 181:2 190:14
 208:12 213:16,22
 214:14,15 225:18
 226:21 228:19,20
 228:21
industry's 122:12
industry-promul...
 93:7
IndustryJOY 2:16
inevitable 25:5
inevitably 59:5
influence 71:18
information 41:13
 43:9 74:3 105:5
 105:14 119:1
 124:1 144:19
 148:3,3,13 153:5
 157:1 194:5
 203:22 220:20
 221:8 231:14
infrastructure
 30:15
inherent 38:18
initial 93:15
initially 50:20
 135:13
inject 25:14
injury 39:17
inland 6:12 15:13
 98:1,4 108:7
 112:16 119:22
 120:7 132:7,8
 152:8 160:17
 161:21 162:6,13
 162:14 163:15,20
 164:3,7,15,16,21
 165:14 167:7,15
 171:10 178:7
 187:3 199:4,10,19
 204:10 208:1
Inn 158:14,15
input 40:11 133:20
 149:21 191:15,16
 209:1

ins 114:8
inside 32:19 110:5
 163:11 165:13
insight 8:1 43:20
inspected 51:3,4
 51:12
inspecting 51:7
inspection 5:20
 41:12 51:14,21
 183:16 188:5
inspections 3:2 5:8
 22:8 44:14 49:6
 49:14
inspector 188:19
 188:20 224:9
inspectors 51:13
 195:22 213:21
instance 145:2
 154:12
instances 106:1
instrument 87:16
integration 105:18
 110:13
integrations 104:21
integrity 37:3
intellectual 33:22
intend 137:7
 194:19 200:14
intended 79:15
 194:16
intensive 39:13
intent 81:20 129:21
 202:12
interaction 232:1
interagency 30:4
intercessional
 129:17 136:9
 140:8 141:11
interconnected
 76:14
interest 58:11
 125:22 126:1,14
 220:17
interested 18:22
 21:22 22:1,2
 102:13
interesting 7:11 8:3
 10:10 18:5 19:5

21:3,9 23:7,11,14
 23:18 51:8
interests 29:9
interim 68:3,7
 196:8
internal 51:16
 196:13
internally 51:20
international 27:2,7
 27:12 28:3,22
 74:4,6,7,9,10,14
 74:22 75:5 77:12
 83:4 86:8 96:14
 108:4,16,18
 109:16,19 110:2,3
 113:17 114:9,12
 132:1 133:3
internationally
 27:14
Internet 123:11
 132:1
interpret 170:18
interpretation
 102:5 171:14
 213:14
interpreted 171:15
 172:13
interprets 223:14
Intracoastal 120:13
 120:22 161:1
introduce 11:13
 18:19 22:17 44:6
 49:4 212:15
introduction 5:2
 7:3 14:8 43:17
invariably 148:14
invention 88:12
inverse 165:13
investigating
 118:19,22 162:16
investigation 49:8
 115:19 119:4
investigator 97:3
 118:2
investing 23:8
investment 21:17
invitation 42:20
invited 71:14

involved 35:11
36:16 61:17
143:10 147:6
192:10 200:4
202:20 206:1
involvement 51:22
IO 162:15,18
IOs 118:22 186:11
iota 112:16
iPad 91:22 106:21
122:15
iPads 108:13
122:10
iPhone 72:8
ironically 21:11
irony 193:12
issuance 191:10
issue 57:14 58:10
58:13 59:17 60:11
62:14 63:11,19
69:20 70:3 76:18
109:13 118:10
126:19 134:16
152:9 155:6 161:6
165:19 167:10
169:4 175:17
177:14 181:1
188:16 190:6
193:8 199:19
201:5 202:9
206:19 210:17
222:12 226:17
227:19
issued 12:18 68:11
158:2 177:9
issues 50:14 54:5
54:22 55:1,15,16
56:1,4,5,18,19,21
58:6 59:5 63:5
93:20 125:3
141:17 144:17,21
168:6 183:5,10
207:15 222:10
230:12,13
issuing 57:21 188:4
192:3
it'll 107:1 157:10
181:15 213:9

ITB 70:5,6,13 71:5
ITBs 69:18 70:8,10
159:5,7,10
item 95:2 181:13
203:14 207:12
226:6,15
items 64:16 66:4
82:16 166:18
185:2 226:14
iterations 88:18

J

J 3:4
Jacie 4:4 46:12
55:5,7 63:11
Jacie's 195:14
Jacksonville
116:17
Jaenichen 3:2
22:18 23:3 125:15
January 57:21
Jason 4:5 47:6
Jenkins 3:11 20:14
47:12,13
Jennifer 35:9,17
Jerry 2:19 3:9
17:15 47:1 67:7
134:7
Jersey 1:19
jetties 163:10
Jill 2:5 15:13 178:7
Jim 3:11 20:14
47:12
Jo 2:22 17:7
job 39:12 40:21
127:18 135:11
152:22 181:19
215:15
jobs 28:17 32:4
42:14
Johansson 2:2
14:16,17,18 116:3
116:4,5 117:20
119:20 120:16
140:12,14 153:15
215:9,17,21
216:20 232:7
233:6

John 3:9,21 45:5,11
join 7:19 8:13 51:3
170:8,8 183:12
joined 19:13
joining 43:15,18
231:22
joke 49:17,18
212:14
Jones 23:8,18
Jose 3:3 7:7 19:17
21:9
journey 35:16 38:9
Joy 15:21 138:11
224:1
JR 2:19
judge 113:12
Julio 3:16 45:1
July 22:20,22,22
57:18 68:12 143:6
jumping 144:14
June 5:10 33:4
53:20,22 54:1
64:14
jurisdiction 181:9
211:12,15

K

keep 18:8 36:19
71:3 139:22
141:20 180:15
231:16
keeping 95:19
186:3
keeps 37:20
Kelly 3:12 8:6 18:20
19:9,16,17,19
55:16 124:20
193:9,10,11 194:7
194:12 197:2
198:13 209:15,17
209:17
Ken 3:6 47:8
Kent 3:12 44:21,21
Kentucky 96:1
kept 37:20 38:12
104:10 117:6
118:9
Kevin 3:7,13 4:3

46:20 48:1
key 163:22 195:3
kick 79:8
kicked 96:20 102:2
155:10
kind 34:6 50:1
52:18 73:13,14,17
73:19,20 74:8
76:11 78:6 79:7
79:20,22 85:21
86:10 89:1 97:6
101:10,20 106:11
109:7 118:6
121:15 123:15
127:16 137:20
180:16 206:17
214:6 227:8
kinds 39:10 86:9
88:6
Kirby 3:9 15:13
47:1 178:7
know 9:16,22 11:6
24:15 27:22 32:2
32:2 33:21 35:9
41:16 46:15 57:13
58:10 62:2 71:8
71:16 87:7 101:1
113:7,19 122:14
122:15 126:3
133:14 135:22
142:20 143:9
146:2 149:4 151:6
151:16 152:11,14
153:12 154:12
157:8 161:6
162:17 164:16
165:1,5 168:22
169:5 171:10
181:4 184:21
186:12 191:7
192:14 193:15,17
196:10 201:2
202:22 204:22
210:3,7,8,20
212:10 219:7
220:15 224:19
229:14
known 174:14

knows 33:3
KOHLMANN 3:13
Kress 2:4 15:3,4,5
 139:9,10,10,19
 218:1,3 219:14,15
 219:15 220:7,14
 221:18 232:14,17
 232:18,21 233:1,2
Kress' 220:3
kudos 58:20
Kuhaneck 3:13
 46:16 55:11 60:13
 60:13 62:17,17
 63:1,3
KULLUK 10:22
 13:1

L

L 3:6
labor 39:12
lack 88:13,14
 176:15 177:18
 222:21
lag 90:11 112:17
Lagarde 2:4 13:18
 13:19 16:11,12,12
 61:3,3 72:10 73:5
 73:7,8 114:20
 115:1,3,6 116:3
 116:14 117:22
 119:3 120:5,19
 121:12,20 122:4
 123:4 124:18
 128:8 129:5,20
 131:18 136:8,15
 136:21,22 140:4
 140:18,18 141:16
 142:7,9 160:8,10
 160:10 161:13
 205:16,17 233:7
Lagarde's 129:4
 139:1 163:6
lagging 122:19
laid 137:11
lakes 2:3 121:2
 160:18 162:13,14
 163:2,14 216:11
 216:11

landmark 33:5
language 70:12
 120:1 155:2 160:5
 177:12 186:9
 216:6,7 228:14
Lantz 143:17 144:1
 147:11
laps 122:11
laptop 72:5,9 84:12
 91:22 92:8 108:9
 111:18
large 39:2 40:8
 80:15
larger 38:18
largest 26:10 78:19
Lastly 10:18
latch 39:8
laughing 149:16
Laura 2:13 16:7
law 45:21 167:2
lawyer 155:2,3
 158:12
lawyers 150:2,3
layers 77:21
LCDR 3:5 4:4 44:10
 226:3
LDCR 45:15
lead 18:9 26:3
 215:16
leaders 34:3
leadership 36:13
 36:18
leading 18:9 21:10
leads 155:4
leaning 118:6
learned 215:13
leave 24:12 26:9
 49:11 135:7 207:9
 209:11
Leavell 3:14 46:8,8
Lechner 3:14 44:18
 44:19
led 32:21
Lee 3:15,19 46:6,10
 46:10 55:12 62:3
 62:18
left 44:3 127:20
 188:3

left-hand 111:5,9
legacy 170:4
legal 56:22 103:19
 119:14 164:2
 171:4
legitimize 130:14
Lemm 15:21
let's 81:4 82:11,17
 101:2 103:10
 106:20 161:4
letter 67:19 68:7,11
 68:22 103:22
 146:12 154:10
 157:2 163:17
 164:13,14 166:5,9
 166:11 180:13
 181:15 185:16
 187:17 189:22
 190:22 198:11
letters 153:3 158:2
 163:12 164:5
letting 133:14
level 27:3 28:5
 33:10 35:6 61:10
 91:16 145:1
 172:20 175:15
 189:1 201:18,22
levels 116:8 188:7
leverage 210:10,16
liaison 20:16 47:14
license 60:6 93:11
 154:10 163:14,17
 163:21 164:3,6
 166:22 167:21
 169:21 170:15
 171:5,6 174:5
 176:6,8,9 177:9
 222:13 223:14
licensed 16:9 62:22
 185:14
licenses 93:10
 174:8,8
licensing 58:6,7
 99:15 160:21
 161:15 167:10
 186:17 189:7
 216:6 223:17
licensure 62:11

Lieutenant 44:10
 48:22 226:4
life-saving 37:4
 223:17
lifesaving 186:19
 187:1
lifetime 170:9,12
light 108:8 132:14
 182:11
lightly 173:14
lightweight 187:20
likelihood 31:7
likes 193:4
limit 151:14 221:21
limited 98:18 99:6
 99:10,11,15
 100:15 121:4
 154:10,16,18
 155:8 177:9 189:3
 191:4 216:11
line 39:7 128:15,21
 163:12 165:1,4,14
 212:18
line-haul 62:9
lines 16:13 24:3
 39:15
lineup 152:6
link 77:18
liquid 204:15
list 61:4 70:19
 83:20 87:9,22
 92:15 93:10
 132:15 146:3
 152:16 221:9
listed 119:10
 153:22
listened 125:15
listing 56:14 188:9
lists 166:18
literally 30:10 36:21
 187:2 196:10
little 3:15 8:13 10:5
 26:4 27:6 46:18
 46:18 57:1 63:19
 66:6,9 73:10,11
 79:10 80:1 83:10
 95:19 96:8 100:13
 101:22 107:11

139:17,18 142:12
 148:15 149:17
 156:12 201:1
 209:3,12
live 8:1 26:21 204:9
livelihood 152:20
lively 138:2
LNG 6:16 9:5 120:2
 215:11,19 218:20
 220:4,7
loans 30:11
lob 61:1
local 98:18 99:10
 99:15 100:9,15
 121:4 154:16,17
 154:18 155:7,9,12
 156:5 161:17
 162:2,6
location 43:6 63:8
lock 168:3
locking 157:6,7
lofty 33:14
logs 119:5
long 24:3 34:22
 38:1 39:8 56:16
 70:9 93:4 101:7
 109:5 146:1
 174:12 179:7
 182:4
long-term 179:12
longer 55:13
 134:11 148:10,16
 150:6
look 13:13 18:3
 22:11 37:7 38:20
 52:8,11 53:7,8
 54:12 56:19 60:16
 71:7,11 73:11
 75:16 79:12 89:14
 90:20 91:6 95:12
 96:6 100:21 101:3
 111:15 113:11
 122:5 126:12
 128:2 129:16
 132:18 148:5
 153:16 154:20
 158:16 159:3,22
 171:8 172:22

179:22 181:5
 190:4 192:14
 193:17 194:20
 195:1 196:3
 208:18 211:11
 219:6,12 221:2
 230:4 231:15,22
looked 78:21 102:1
 127:18 128:17
 174:6 207:11
looking 13:17 52:2
 52:19 78:18 80:2
 89:19,20 90:3
 96:9,16 114:2
 122:4 129:12
 140:5 144:7,15,16
 146:10 166:2
 171:13 178:1
 180:13 182:5,14
 182:15,16 184:10
 196:14 197:14
 224:22 230:7
looks 18:10 165:3
 172:8 181:5
lose 12:19 91:5
 106:18
losing 111:15
loss 131:11
lost 91:14,14 94:13
 100:3 111:12
lot 7:12 8:4,4 13:5
 53:15,15 58:11
 61:7 67:13 69:1
 73:18 74:12 78:14
 78:17 95:18 99:20
 101:16 104:18
 108:21 121:12
 129:6 135:14
 146:5 152:18
 159:2 165:8
 168:21 178:1
 179:8 184:20
 202:18 204:10
 223:18 224:17
 225:12,16
lots 149:4
loud 223:9
Louis 84:21 143:12

Louisiana 3:18
 47:5
Louisville 95:22
love 126:20 130:10
 155:2
lower 81:10,19
 99:19 111:9,21
 162:22 178:10
 185:20
lowest 27:3 28:5
 53:8
luck 189:14 218:11
Luke 3:10 20:6,8
 58:8 137:13
 142:19 143:4
 157:18 168:19
 180:10 183:11
lunch 10:7 48:16
 137:10,12,14
 138:1 140:2 209:5

M

M 8:10,21 21:4
 22:10 33:5,11
 35:11 38:2,9
 40:20 41:13 50:7
 50:10,15 51:1,9
 53:22 54:6 57:7
 59:6 60:20 61:12
 64:9 100:17 120:4
 120:12,17,21
 128:6 160:22
 161:11,16 162:2
 167:19 178:9
 182:8 183:15
 184:1 186:16
 188:9 191:3 197:4
 197:19 198:12
 204:1,2 210:20
 211:8 216:5,7,10
 231:7
M-INSPECTION
 183:18
M64 30:21
machinery 68:1
magic 110:19,20
mailbox 146:19
maintain 94:3

212:22
maintained 37:4
maintaining 19:3
 174:8 231:15
maintenance 131:9
major 36:6 177:10
majority 78:19
 202:3
making 30:13 40:18
 55:9 56:7 64:2
 89:17
male 48:14
Mallon 3:16 45:19
 45:19
manage 199:14
 201:2
managed 154:17
management 21:13
 21:16,18,19 37:2
 37:15 54:8,15,17
 92:17 118:4,7
 173:4 206:10
 211:6 212:9 213:5
 213:20
management-level
 173:3
manager 16:4
 17:12
mandated 10:13
mandatory 95:11
 111:7
manned 60:4 159:7
 175:4
manning 20:9 60:2
 62:13 167:11
 175:15 178:9
 188:3,22
manpower 41:5
Manual 184:9 185:3
 185:6 186:10
 187:11,19 188:21
 189:10
manually 132:5
manufacturer
 84:14 90:2 92:12
 93:2 133:22 134:1
 134:2
manufacturers

83:22,22 84:9
 85:10 88:15 90:2
 93:9 107:22
 125:10 126:10
 133:12
map 81:11,18 87:13
maps 81:18 86:2
MARAD 3:7,11,13
 3:21 8:16 20:13
 45:7
Marathon 3:19
 45:13
March 151:4
marine 3:8,14,15
 3:18 4:5 15:14
 16:10 17:4,16
 26:20 27:18 28:15
 30:18 32:22 33:8
 42:9 45:9,18 46:9
 46:19,21 47:7,11
 47:22 59:15
 131:11 178:7
 181:11 184:9
 185:3,6 186:10
 187:11,19 188:21
 189:10 195:22
 199:12
mariner 5:16,16
 20:5 28:17 105:14
 118:15 131:13
 142:16,19,22
 143:2,5 145:18
 154:8 161:2 162:5
 163:20 164:5
 165:21 166:19
 167:1,6,20 179:5
 187:4,5 192:8,19
 212:16 224:8
mariner's 189:2
 223:14
mariners 25:9
 30:16 38:19 98:3
 104:11 112:15
 132:13 146:15
 158:9 159:16
 163:12 168:22
 170:7 171:9 179:1
 179:12 180:21

191:4 199:19,20
 201:6,7 205:3
 227:5
mariners' 167:13
maritime 3:2,10,17
 5:7 8:11 12:2,4
 16:8 22:15,19,22
 24:22 26:11,19
 27:5,17 29:2,16
 29:19,22 30:3,12
 30:14,17 31:17
 32:2 34:3,11,17
 46:5 47:4 48:2
 74:7,17 144:20
 147:1,5,13,15,16
 147:18,21,22
 148:2 165:7
 168:19 172:17
 173:1 177:22
 180:10 191:12
mark 104:10,13,18
marked 48:17
market 78:12 88:22
 90:3,7 126:5
markets 32:18
 109:6
Marquette 15:10
married 86:6
Martinez 3:16 45:1
 45:1
Maryland 47:7
Massachusetts
 16:8
massaged 202:5
massive 33:19
master 6:10 19:15
 55:17 60:3,4
 124:21 150:20
 151:4,8,13,15
 171:5 177:10
 190:20 192:16
 199:2,7 203:4
master's 170:14
masters 2:7,9,11
 16:19 17:1
mate 6:10,11 60:4
 150:21 151:1,4,12
 151:12,13,15,16

169:15,16,19
 170:2,21 171:20
 171:21,21,22
 172:3,4,9,15,18
 199:2,3,8,9 203:4
mate's 171:6
material 178:12
mates 60:3 170:12
 170:17
matrix 187:10
 224:6
Matt 3:12 16:12
 44:21 61:3 122:1
 126:4 127:18
 135:10 140:11,15
 140:18 160:10
 233:7
matter 139:22
 217:3 230:2
matters 144:4,18
 145:15 146:16
Matthew 2:4 4:4
 45:15
McAllister 15:5
McVicker 3:17 46:2
 46:2
McWhorter 3:17
 47:3,3 127:14,15
 127:15 168:17,18
 168:18 172:7
 180:9,9 206:20
 207:19
mean 28:1 113:19
means 20:7 36:15
 41:5 109:2 149:21
 150:2 165:14
 187:12,13 213:20
meant 157:2
measured 185:8
medical 145:19
 146:14 148:10,10
 148:12
Medina 144:6
MEDMAC 178:7
meet 10:16 12:5
 55:22 68:14 79:2
 80:6 81:3 90:6
 99:1 145:10 162:1

meeting 1:8 5:9 7:6
 9:14 10:4 12:15
 18:3 24:13 25:12
 43:2,7 50:15,17
 50:19 63:17 64:13
 64:18,20 66:1,13
 69:5 70:2 71:15
 83:14 124:3
 129:17 136:10
 137:17 173:10,11
 181:17 200:3,11
 200:15,20 202:7
 202:10 208:21
 214:20 231:7,19
 233:21
meetings 50:1
 54:21 68:13 145:7
 157:21 158:1
 208:9 222:11
meets 56:1 89:3
 93:1,4 103:11
member 6:19 7:21
 13:16,19 14:6,22
 15:4,9,13,16,21
 16:2,7,12,17,21
 17:3,7,11,15 18:6
 61:3 65:6,9 67:11
 69:21 71:13,22
 73:8 115:3,6
 116:3,14 117:22
 118:18 119:3,18
 120:5,19 121:12
 121:22 122:4
 123:4 127:16
 128:8 129:20
 131:18 134:6
 135:9 136:21
 138:11 139:4,10
 139:15 140:18
 142:7 149:9
 150:12 151:22
 152:3 153:7,15,19
 156:4,8,12 157:4
 157:14,17,20
 158:11 159:13,19
 160:3,10 161:3,13
 168:14 178:6
 180:3 183:20

- 192:1 193:3,20
197:7,10,12,15
198:8 199:11,17
202:16 203:2
204:5,9,13,18
205:6,12,15,17
206:6,16 207:18
208:22 217:15
218:1,4 219:15
221:4,10 223:7
224:1,4,15 225:19
227:14 228:17
229:3,5,10,14,20
230:1 232:17
233:1
members 5:6 7:15
7:17 9:10,18
10:11,12 13:13
14:8 17:4 18:1
32:21 41:10 49:20
58:18 59:16 63:7
64:6,18 65:22
69:12 83:21 103:2
114:22 118:8
121:20 124:17
128:10 129:11
136:7 137:5,15
138:8 139:21
140:20 150:11
160:7 182:21
183:21 191:20
193:22 199:21
200:1,20 202:15
205:20 208:1,6,11
221:13 222:6
223:20,22 225:16
227:11 229:2
230:14 231:1,4,19
232:3 233:19
memory 92:14
Memphis 30:20
46:1,9
Menke 3:18 45:17
45:17
mention 55:15
69:21 70:16
194:21
mentioned 56:18
- 70:15 149:10
150:13 180:10
198:13 206:11
210:8,9
menu 10:10
Merchang 5:16
merchant 20:4
26:20 27:18 28:15
142:18 143:2,5
145:18 181:11
192:8,19
meriting 186:3
MERPAC 96:6,9,17
96:21,21 97:8,13
116:16 117:13
127:16,18 128:10
128:16 129:1
145:11 200:20
207:20 210:12
met 1:17 41:17
50:12 70:1
meters 133:19
method 168:3
Mexico 113:9 163:8
163:19 164:17
mic 44:4 137:21
MICHAEL 2:3,7,21
microphone 9:8,12
232:22
Midstream 4:3
Mike 2:20 14:22
15:16 17:3,11
71:14,16 151:22
157:17 159:12
183:21 199:5,11
204:6 217:15
221:4 223:9
227:14 233:7
mile 99:16 100:1
miles 99:21 164:17
164:19
milestone 42:6
million 30:18
millions 30:10
32:13
mind 35:5 36:12
154:10 203:4
224:4 232:22
- minds** 124:1
mine 26:8
Mineral 2:15
minimum 188:8
191:8 232:12
minute 187:5
188:19
minutes 5:9 43:16
48:10 64:13,18,20
65:5,12 66:1
137:3 180:8
221:22 231:18
233:20
missed 116:14
165:11
missing 152:7
204:6
Missions 64:21
Mississippi 81:10
81:19 99:20
106:20 162:22
178:11 185:20
Missouri 143:13
MMC 61:1 146:17
153:4 180:17
181:3 189:2
190:19 191:2
MMC-1 145:12
MMC-2 145:13
154:2 156:9
mmcpolicy 166:9
mmcpolicy@usc...
151:18 166:8
MMCs 191:11
mode 70:5
model 25:6 127:4
modernize 30:14
modes 69:19
modify 133:11
MODU 13:1 59:21
moment 26:5 39:16
69:19 193:8 202:4
202:9
money 21:21 41:6
126:10
monitoring 188:10
monitors 131:1,17
monster 114:7
- monthly** 203:15,15
203:20,21
months 57:16
157:11 169:18
170:1,15 171:19
171:22 176:1,2,4
months' 176:10
Moran 16:18
morning 7:5 11:12
14:18,22 15:4,9
19:18 23:21 24:4
44:18 45:5 46:10
47:12 59:14 67:3
67:11 125:16
126:17 200:7
210:3 227:1
morphed 74:19
mother 88:12
motion 13:13,14,16
65:4,8,11 138:16
138:18,19,22
139:13,21 141:18
194:7 197:10,13
197:22 198:10
217:20,20,22
218:1,2,6,17,18
220:2,2,6 225:22
226:12 233:13,14
motions 98:6 138:8
move 34:20 42:9
53:12 71:10
136:12 138:13
140:7 141:17
165:22 175:19
185:4 207:14
209:16 210:17
217:8 227:5
230:15 231:11
233:11
moved 65:6 197:12
moves 52:10,11
movie 31:8
moving 28:2 32:15
37:21 39:2,4 54:3
62:7,13 63:6
71:19 130:4,15
136:4 142:11
178:12 198:16

202:19
MSM 185:10
multi-certificated
 59:19
multi-purpose
 212:4
multi-service 60:18
multiple 126:5
Myskowski 2:6
 15:8,9,10 18:2
 118:17,18 119:18
 139:4 192:1,2
 206:15,16,16
 207:18 224:14,15
 224:16 225:19

N

N 3:2 178:14
 186:18
Nabach 3:5 22:13
 44:10,11 48:5
 49:1 226:3,4
name 7:6 9:12,20
 10:3 14:13 19:18
 44:6 59:12 69:18
 143:4 174:16
 233:1
names 88:19
 232:12,19,20
 233:8
nation 27:17 31:19
 33:18 35:8 37:21
nation's 27:3 28:6
 29:3 31:20 32:5
national 28:19 29:5
 29:9,17,21 30:2
 55:2 144:20 147:1
 147:5,13,15,16,17
 147:20,22 148:2
 165:7 177:22
 191:11 201:7
nationally 26:13
nationwide 228:21
naturally 41:7
nature 212:3
nautical 99:16
 104:1,8 132:16
nav 108:10 112:16

131:21
naval 40:10
navigate 39:9 41:11
 80:16 108:12
 110:21 125:6
navigating 89:13
 92:9
navigation 45:16
 74:5 78:16 81:18
 82:15 87:5,7 89:9
 89:10 91:5 93:8
 99:17 105:16,16
 106:22 117:7
 131:12
navigational
 110:14 119:5
 133:9
nay 65:17 142:3
 198:4 219:2
 220:11
NCOE 55:22 56:14
 57:9 63:11,14
 195:14 196:12
near 62:2 129:16
 160:16 164:8
 165:16,20 166:3
nearly 103:21
neat 72:7
necessarily 54:11
 60:21 61:16
 106:18 206:3,5
necessary 67:22
 137:4 190:5
neck 114:7
need 9:16 11:6
 13:12 48:7,21
 60:6 62:16 63:15
 65:3,8 70:11 80:6
 88:12,14 98:14
 99:1 103:14
 111:15 113:10,15
 113:20 121:18
 125:1 127:7
 145:10 155:19,22
 156:2,16,17 167:1
 169:17 170:2
 175:11 177:14
 183:8 188:2,13,14

190:5,11 195:13
 195:19,21 206:5
 211:19 217:9,20
 217:22 218:9
 219:11 220:2
 224:5,17 226:11
 230:7 232:12
needed 29:8 101:19
 106:7 214:2 232:5
needs 35:18 80:12
 80:13,16 87:21
 88:15 92:14,15
 98:12 99:13 101:6
 101:7,17 102:16
 102:18 103:5,6
 115:13 118:5
 169:2 175:18,21
 176:18,19 189:17
 192:11 218:13
Nelson 3:19 46:6,6
 62:3,3,21 63:2
Netherlands 108:5
 108:13 122:7
never 26:22 97:21
 133:20 169:1
 211:20
Nevertheless
 174:18
new 1:19 5:11 9:3
 11:10 15:1 18:1,6
 20:4 36:21 40:13
 45:4 47:4,11 50:2
 50:3 51:3 54:1
 57:19,22 65:22
 66:16 67:4 79:13
 82:1,12 85:15
 108:2 112:15
 132:2 141:4 143:6
 148:17 154:13
 161:19 164:19
 166:17,18 167:11
 168:15 187:17
 190:3 198:16
 200:16 206:18
 209:7 211:10
 215:2 217:6 226:9
news 23:5 68:10
nice 50:22 152:1,2

night 140:19 216:8
NMC 154:12,13,19
 154:20 155:1
 169:22 173:11
 181:1 187:4
NMC's 176:17
no-sail 95:1
NOAA 74:13 82:11
 83:2,3 103:12
 132:11
nomenclature
 222:17 225:13,14
 226:17
nominating 221:17
 232:5,15,18 233:2
nomination 218:6
nominations
 217:12 219:12
non-profit 74:19
non-SOLAS 121:3
normally 134:17
 135:21
Northeast 2:4
Northstar 4:3
NOSAC 18:17
 21:11 210:8 211:5
not-risky 39:18
notch 174:2
note 194:15
noted 26:18 53:11
 53:13 65:22
 142:10 219:5,10
noteworthy 50:17
nothing's 95:4
notice 23:4 29:22
 48:12 61:9 132:13
 135:21 195:2
noticeably 189:12
noticed 61:6
 130:17,18
notify 148:2
November 68:15
 71:15 114:5,6
 129:13 140:6
 200:14,15 202:5,7
NTSB 123:1 124:2
 124:3,9
number 13:3 27:10

39:4 51:7 53:5,8
62:6 153:20
166:18 186:2
191:4 205:7 219:8
227:11
numbers 50:5 51:2
148:8
numerous 167:14
NVIC 5:12 66:18
67:6 68:5 69:17
70:7,11,17 71:1,2
71:3 77:3,4,6
79:12,13,14,18,19
94:15 116:19
146:7,9 148:17
149:10,22 150:13
150:17 152:4
166:17 169:7,10
169:12 187:17,21
194:22
NVICs 145:20,21
146:5,11,21
152:16,18,22
153:11
Nyhuis 3:19 45:13
45:13

O

O 178:14
Obama 22:19
objects 130:8
obligated 119:15
obligation 119:16
observer 178:17
179:3
obstacle 23:8
obtain 51:20
obtaining 176:13
obvious 38:15
153:8
obviously 24:13
134:15 135:7
175:14 210:3
occasion 118:21
occasional 60:19
occupancy 67:20
occurred 178:20
ocean 91:2 163:9

163:19
oceangoing 27:1
28:14 29:16
oceans 121:2
160:18 164:9
165:21 216:10
OCMI 99:8 100:9,15
154:11,12,13,13
154:19,21 155:1,6
156:5 161:17
162:2,7 188:4
OCMIs 186:11
October 1:13 12:18
27:10
OES 19:20
offer 193:19 205:17
offering 57:6
201:11
office 5:16 7:8
19:11,20 20:4
45:2,16,20 60:13
62:18 118:9
132:18 142:18
143:2,5,6,9,15,22
144:2,6
officer 3:3,4,5 6:9
172:21 178:14
199:1,7 202:17
205:2 221:20
232:6
officers 5:3 7:4 9:2
118:20 167:11
202:20
officers' 233:4
offices 145:9
149:20 150:2
155:8
official 48:12 143:7
211:13
officially 232:3
233:18
offshore 2:15 16:3
21:11,14 47:10
59:15 91:1,2
93:20 98:2 214:15
216:3
Oh 180:6
Ohio 99:21

oil 2:15,19 16:4
32:16
okay 26:6 66:20
71:20 106:4
130:16 139:19
153:9,18 156:8
158:15 160:3,8
163:4 166:13
178:3 180:3,4
182:10 199:15,17
207:18 208:22
209:2 214:15
217:17 218:12
223:21 225:19
226:11 230:13
Oklahoma 1:17
old 77:18 112:21
182:7 187:21
OMSA 4:5
onboard 81:16
118:3 203:17
once 19:18 21:10
22:4 40:15 43:4
52:3 68:7,9,19
82:18 98:17
104:16 110:5
132:10 136:10
149:19 153:7
163:10 171:20
172:4 181:8
196:14 210:2
214:7
once-a-year 54:12
one's 161:9 177:5
one-for-one 159:11
one-size-fits-all
111:2
one-time 151:5
ones 57:14 79:5
99:20 145:12
onions 127:19
online 56:12,13
open 24:11 50:1
57:2 91:17 113:7
114:21 124:17
208:2 217:11
218:8 223:5 226:6
230:22

opened 50:21
opening 5:4 11:19
123:2
openness 59:2
operate 67:22
91:10 95:14 98:18
99:22 113:7 162:5
163:21 165:17
167:13 168:2
173:16,21 174:20
175:5 178:13
operates 165:16
operating 7:9 19:12
19:20 37:7 46:22
54:12,13 59:22
70:7 80:18 92:19
95:22 99:6 101:9
108:6,15 111:10
113:8 162:12
163:11,13 164:6,7
165:4 167:22
174:19 179:17
operation 19:6
21:21 38:17
167:22
operational 6:15
215:10,18
operations 8:22 9:6
14:10 15:6 16:3
17:12 18:16,16
36:22 106:13
167:8,16 177:17
213:6 214:4
operator 35:6 39:13
40:4 62:22 63:2
162:17
operators 2:3,18
24:18 25:9 32:9
34:3 35:10 40:9
47:20 168:7
172:11 184:15
opinion 44:1
169:15
opportunities
58:20 210:10
opportunity 12:13
31:15 36:8 39:22
49:21 72:16 106:6

135:4 179:22
 183:7 210:12,16
 222:4,9,15 223:3
 231:8
opposed 14:1,3
 65:16 109:7 142:2
 142:6 156:19
 158:4 189:13
 198:3,7 219:1
 220:10,14
opted 216:6
optimist 181:18
option 51:10,17
 94:2,4,5 196:1
 201:16,20 206:4
 211:2
options 51:9 112:3
 131:3 201:12,13
order 52:3 95:3
 129:14 134:8
 135:19 137:22
 157:7 183:9
 204:19 207:7
 217:8 220:18
 225:18 226:19
organization 57:5
 74:7,11,15 80:15
 83:4
organizational
 143:14,21
organizations
 74:20 116:9 228:9
original 76:9
 176:13 194:13
originally 79:15
 85:20 128:13
 156:21 216:5
Orleans 15:1 45:4
 47:4,11 50:3
 154:14 161:19
 200:16
OSV 59:20 187:21
outcome 201:10
 229:15
outcomes 149:1
outfitted 159:7
outreach 189:17
outs 114:9

outset 135:12
outside 32:20
 48:18 131:16
 163:13 164:6
 166:14 207:2
outstanding 54:5
overall 7:13 200:21
overarching 123:8
overlay 94:9
overseas 229:11
oversees 49:7
owned 51:11
owners 40:10

P

P-R-O-C-E-E-D-I-...
 7:1
p.m 137:19 209:6
 214:21,22 233:22
pace 212:22
package 147:18
Paducah 24:17
 46:3
page 11:1,4 65:1
pages 49:10 56:16
 56:17 224:5
pair 95:17
paper 77:6 78:22
 80:19,20 81:6,12
 81:15,21,22 82:6
 82:14,21 83:8,12
 89:14,16,19 93:21
 94:3 95:14 99:1
 103:3,7,15,20
 104:5 124:9
papers 56:9,12
paperwork 192:9
paradigm 211:3,9
 212:9 213:16
paragraph 178:11
 182:22 216:22
paragraphs 185:11
 217:1
parallels 211:7
parameters 99:4
part 9:7 25:2 28:15
 36:8 41:8 52:9
 53:16 62:14 76:10

136:1 149:11
 158:10 184:7
 193:14 196:19
 203:5 204:3
 205:21 206:8
partial 175:2,8
PARTICIPANT
 121:11 138:19
 182:9 199:16
 218:9,11 219:19
 229:9
participants 10:3
participate 208:6
participated 40:20
 121:8
participates 18:21
participating
 208:12 220:18
participation 7:14
 18:4 43:18 72:20
 184:19 208:11
 231:13
particular 25:2
 160:11,19 161:20
 183:10 186:9
 188:15,18,22
 215:2
parties 57:12,13
partner 35:15
partnership 231:15
party 51:18
pass 135:10 141:9
passengers 62:12
passing 89:18
passion 136:17
passionate 18:22
pastures 31:12
Pat 46:14 55:12
pathway 129:5
 136:4 138:9 140:1
 182:13 222:21
patience 214:8
Patrick 3:15,15
 46:10,18
Paul 3:2 46:7 62:4
pay 93:11 219:19
pay-to-play 125:12
PDATO 2:3,18

pecuniary 126:1
peeling 77:20
 127:19
Pennsylvania
 47:18
people 9:22 32:19
 36:16 37:14 40:14
 42:12 50:5,6,8,8
 50:10,21 67:22
 91:13 101:2 145:2
 145:3 151:7,9,17
 152:18 164:16
 165:1 174:7 177:3
 177:4 184:17
 190:19 196:13
 200:4 222:7,20
 224:18
people's 163:22
 196:21
perceive 19:6
percent 27:11,21
 28:1 51:4,6 53:6
 148:19 158:20
 173:9,12,16,17,22
 176:6
percentage 27:13
 27:21
Perez 3:3 7:5,7
 11:22 12:16 17:18
 17:21 22:12,16
 23:3 43:3 48:4,8
 209:15 231:12
perfect 43:7 163:6
perform 62:6 92:16
performance-bas...
 212:11
period 33:8 134:18
 135:2 137:10
 226:16
periods 130:6
 134:10
permanently 71:5
permission 17:19
perseverance
 35:20
person 58:10,13
 173:20 189:19
 190:21 211:13

- personal** 25:8
Personnel 181:12
perspective 19:7
 86:13 225:10
pertaining 9:6
pessimistic 181:20
petroleum 3:19
 32:17 45:14
phase 41:2 42:1
photographs
 130:19
phrase 109:1
PIC 146:13 180:11
 182:5 204:19
pick 165:3 194:15
picked 102:3
picking 77:8
picture 122:8
pictures 130:20
piece 78:8 80:19,20
 84:17 85:11,15
 89:19 111:7
pieces 76:15
pile 195:4
pill 103:15
pilot 2:11 6:10
 16:22 108:11
 170:14 178:10
 190:20 192:16
 199:2,8 203:5
 227:17,21 228:10
 228:11
pilot's 169:20
pilotage 162:21
 185:21 186:1,5
 226:19
pilots 17:1 108:14
 228:8,19
PIN 70:20
Pinner 3:20 45:3,3
pinpoint 153:16
Pittsburgh 47:18
 50:2,5 59:1
place 12:5 38:10
 40:1 50:20,21
 57:16 58:1 63:15
 84:11 92:19 99:4
 101:16 174:4
 187:11 188:17
places 37:11
 158:17 187:2
 204:11
plan 12:19 66:8
 71:15,16 122:11
 122:14 135:22
 195:8,13 196:2
plane 122:8
planes 122:13
planning 66:7
 137:12
planted 226:16
planting 222:8
platform 96:13
 109:1 117:12
play 41:19 162:5
playing 35:6
plays 28:15
please 9:11,19 10:4
 10:6 11:8 48:7,22
 49:2 55:5 156:1
 158:11 221:21
 222:14
pleased 13:4,7
 142:21
pleasure 22:17
 23:22 31:14 49:4
 58:22
pledged 41:9
plenty 111:22
plethora 118:12
plot 90:21,22 91:1,1
 101:22
plug 85:14 86:17
 108:11
plugged 78:17 85:7
 86:17 91:22
plugging 132:4
plus 180:22
point 13:13 19:22
 26:21 28:5 52:5
 55:3 64:15 65:3
 65:11 66:5,22
 68:18,20 69:6
 72:10 83:6 88:20
 88:21 98:11
 102:19 107:3,3
 112:19 113:12
 114:22 118:22
 122:20 124:15
 129:11,15 132:22
 133:1,1,10 134:8
 135:19 137:14
 142:15 149:19
 182:22 183:12
 197:5 198:19
 207:6 208:2 209:2
 209:6 217:6,11
 218:6,14,20
 219:22 221:12
 225:20 228:12,22
 230:5,22 233:12
pointed 85:22
 113:4
policies 37:2
policy 5:11 49:7
 55:20 63:6 66:16
 67:4,19 68:3,4,7
 68:11,22 71:3
 82:19 103:22
 104:6 143:19
 144:4,11 145:4,14
 146:12,17,18
 149:17 153:1,3,4
 158:1 163:17
 165:15 166:4,10
 181:7,8,14 182:14
 187:17 190:3,7,11
 192:15 193:6
political 31:11
poor 127:3
pop 93:9
popped 77:6
population 191:3,9
port 2:2,16 14:19
 25:10 49:10
portable 122:16
portion 158:19
 162:6 186:3
 205:22
portions 164:18
Portland 50:2
ports 15:22 30:14
 37:19 227:4
position 14:15
 87:13,13 91:7
 104:22
positions 221:20
 232:6 233:4
possible 102:21
 114:14 136:8
 187:9 192:3
 195:11 196:16
 213:19
possibly 38:5
 180:22
post 56:20
posted 11:1 55:1
 134:18 220:20
potential 39:17
 210:12
potentially 41:19
powerful 210:15
PowerPoint's
 73:11
practical 85:5
practice 41:4
 203:16,18 205:13
 226:20
practices 37:18
 227:9
preamble 177:15
 191:3
precedent 87:18
 108:16,20 135:6
precise 34:10
predominantly
 83:21
preliminary 221:8
prepare 77:3
 198:11
prepared 134:9
 184:12
preparing 62:5
prescriptive 211:17
 212:1,6
presence 8:7
present 2:1 3:1 4:1
 8:14 17:19 57:4
 69:6 215:9
presentation 5:15
 8:17 73:6 75:7
 107:9 136:11

137:13 141:2
 142:16,22 149:5
 197:8
presentations 8:4
 52:8 72:6 121:7
presented 50:6
 80:3 129:9 152:10
 181:15 198:15
 216:1,16,18
presenter 215:2
presenting 8:8 9:3
president 14:10
 15:5,17 22:19
presiding 1:21
Presumably 157:10
pretty 11:11 13:8
 23:6,17 24:20
 36:9 39:6,11,14
 50:17 75:20 80:12
 85:5,8,17 89:2
 92:2 100:22
 111:12 112:6
 114:2 130:1 139:5
 142:13 150:17
 153:7 189:15
 207:12 231:17
prevalent 89:2
 112:11
prevalently 102:19
prevent 37:9,18
 53:14 131:14
prevention 206:11
previous 158:1
previously 22:21
 38:9 64:17 140:2
 157:12
primarily 30:5
 174:20
primary 89:9,10
 105:16 131:4
prime 134:13 197:7
print 56:17
prior 5:9 29:11
 57:16 64:13
 112:18 125:4,5
 143:12 168:22
priorities 61:6
prioritization 61:18

priority 56:6 61:10
 61:13
privacy 123:19
privileges 169:9
proactive 25:4
proactively 34:9
probably 37:12
 50:9 55:13 60:11
 70:10 72:8 84:9
 86:13 95:20
 119:15 121:18
 126:9 150:3
 162:15 169:8
 173:22 177:20
 179:6,7 181:15,17
 184:2 194:8 196:9
 201:11 203:13
 206:4 219:11
 224:12 226:5
 229:11
problem 62:2 79:11
 80:8 86:3 95:10
 101:14 113:4
 127:3 132:20
 160:15 161:14
 163:7 164:10
 179:16 180:19
 188:5 190:20
problems 80:3
 81:12 165:6
 185:22 186:2
 228:8
procedural 206:19
procedures 37:2,5
 37:7
proceed 11:16 95:3
 127:8 134:16
 136:6 182:16
proceedings 7:10
process 35:1 38:6
 42:2 57:8 67:1
 71:10 72:22 88:22
 103:2 129:4 138:3
 146:3 147:7,7,8
 147:20 148:6
 149:18 150:7
 154:2 166:1
 176:17,18 181:19

182:2 190:2
 194:18 207:16
 209:16 228:3
processes 182:15
produce 97:4
produced 13:1 34:4
 36:10 80:14 82:22
produces 82:8
producing 81:21,22
 153:1
productive 12:12
products 32:17
professional 43:8
professor 16:9
proficiency 97:5,21
 98:16 117:3,22
proficiency-based
 97:1 117:4
program 20:3,5
 38:11,12 53:5
 142:17 192:8,20
 201:14,15,17
 205:20
PROGRAM-STAND
 143:1
Program-Standup
 5:16
programming
 133:17
programs 22:8
 202:1
progress 40:18
 56:8 67:1,13 69:1
 208:4,8,19,20
prohibit 133:14
project 29:7 31:1
 105:5 225:6
projected 105:3
projection 100:13
prolong 105:9
promised 149:14
promulgated 75:9
 187:9 189:11
promulgating
 190:3
proper 62:16
properly 148:4
 213:5

property 33:16
proposed 68:8
propulsion 32:15
protect 29:9
proudly 35:17
proven 54:14 84:4
 91:19 124:6
proves 40:17
provide 7:21 75:16
 79:17 80:5 82:10
 93:10 94:11 98:20
 140:6 178:18
 183:9 188:11,16
 194:14,16 198:17
 201:17,19 217:3
 224:8 225:4,18
 226:18,20 228:13
 232:13
provided 32:11
 40:10 230:19
provides 34:15
providing 32:15
 41:20
public 2:21,22 7:16
 9:10,13 10:8,12
 17:5,9 25:11
 31:19 43:14,17
 44:5 46:11 48:11
 58:15 59:11 69:14
 124:17 127:14
 129:3 134:19
 135:3,22 136:2
 137:10 141:13
 168:16 173:7
 188:19 189:12
 190:9 191:15
 194:4 195:21
 197:3 199:13
 204:16 208:3,6
 220:16 230:15,17
 231:2,3,21
publications 104:1
 104:8 132:16
publicly 168:20
publish 88:11
 135:1
published 10:20
 18:12 33:4 53:21

66:21 78:13 146:4
146:7
publishing 56:11
187:17
pull 146:19 148:4
170:4 224:10
pulled 20:2 120:17
128:18
pulls 39:13
punt 222:13
purpose 67:21 86:6
93:3 94:6 95:7
161:21 187:13,14
purposes 85:5
163:16 164:2,8
186:21,22 223:17
purview 181:13
188:3
push 71:9 167:8
pushed 88:11
pushes 39:14
pushing 32:11
put 20:16 26:14
40:1 50:20 54:9
60:9 63:11 74:20
75:3,10,14 77:9
83:22 84:7,17
87:2,12 88:3
93:13 98:8 107:9
107:14 108:10,11
109:4 110:7 111:7
111:17 116:7
120:19 127:9
133:13 149:10
152:15 168:10
177:15 183:5
187:10 195:7,11
196:15,19 211:14
212:13 232:16
putting 29:16 38:10
92:8 111:2 125:5
153:11 189:16
227:8 228:4

Q

qualifications
177:18
qualified 167:6

169:11
qualify 169:18
qualifying 158:8
159:15
qualities 171:3
quality 42:14 54:9
175:15 212:19
213:2
quarter 214:19
question 5:15 9:19
36:12 42:8 58:7
60:2,15,22 61:10
61:19 62:4 84:2
92:9 121:22
122:21 123:20
130:17 134:5,8
139:4,13 142:15
142:22 144:12
146:21,22 151:19
151:20 152:3
157:21 159:12
162:3 163:5
166:15,16 169:2
173:8 174:2 178:8
178:11,22 179:10
179:11 186:11
193:15 206:17
230:10
question's 62:10
questions 20:8
24:11 43:22 48:20
55:6,14 56:15
58:4,15,17 59:10
60:18 61:7,8 69:8
69:12,13,15 115:1
116:2 121:20
124:16,18 127:13
129:3,5 141:1
146:15,18,20
149:5,7 150:5,5
150:10 160:7
166:17 168:14,15
168:16,20 173:7
178:5 180:5
182:20 183:1
184:4,7 191:16,21
193:2 194:3 195:3
195:5,7,17 196:21

197:2 202:14
207:22 208:4
222:2 223:18,21
224:11 230:14
231:7
queue 73:5
queued 67:2
quick 8:6 9:7 11:2
43:17 48:12 63:13
121:22 182:13
quicker 96:2
quickly 85:22
195:11 196:5,16
218:3
Quinn 3:21 45:5,5
quit 81:21
quite 8:18 22:10
24:15 26:1 53:4
202:5
quorum 17:19
quote 91:13 203:6

R

radar 31:19 94:18
97:18,20 131:11
radars 112:2
Radio 74:16
rail 52:21
railcars 52:18
raise 9:21 76:7
raised 33:5 54:22
69:20 183:6
range 84:12 227:3
rank 205:2
rapport 210:13
rarely 174:20
ratify 124:13
rationale 144:7
Ray 3:14 16:21
44:18 150:12
168:22 197:17
RAYMOND 2:11
RCP 206:7
re-appointed 232:7
232:8
re-create 128:9
re-emphasize 28:4
re-equip 112:14
re-evaluated 174:5
re-look 170:18
reach 208:13
reached 35:22
221:12
reactive 25:4
read 61:5 102:2
136:10 218:13
ready 60:12 64:2,11
73:5 114:13
134:13 197:6
200:8
real 29:4 33:2 214:9
224:21
reality 161:22
realize 32:20 54:8
157:15 211:21
realized 77:9 78:22
79:3 83:12
realizing 79:21
really 7:11 8:3,3
10:2,9,10 18:14
18:21,22 24:22
25:1 29:4 30:6
35:19 40:16 59:1
60:12 68:21 69:3
69:7 70:6 72:21
73:2 78:8,11
79:21 80:2,3,22
83:6,12,19 86:4
86:12 90:20 95:9
95:16 99:13 100:8
101:6,14 113:15
128:17 134:7
135:11 145:5
147:8 154:7
162:20 201:10
210:6,11,15
212:12 213:15
219:16
realm 110:6
reason 61:19 94:5
126:3 174:21
210:22 211:8
reasonable 91:21
92:5 93:7
reasons 33:2 158:5
190:4

Reauthorization 88:2	recommending 126:14	referred 77:21 126:4 195:5	154:20,22 158:17 160:14,19,22
REC 143:12	reconsider 138:5 155:20 156:1,9,17	referring 190:8	178:8 181:22
recall 147:14 151:2 159:5 229:8	170:7 171:7	refers 187:20	182:1,3 183:15,18
receive 68:19 86:19 105:5	reconsideration 147:16,21 159:21	refineries 32:18	192:6 211:4 212:8
received 75:8 77:14 113:3 129:12	reconvene 137:12 209:6	reflected 140:13 216:5	213:12 214:1 222:22
169:15 195:18	record 9:16,21 10:2 42:17 44:7 66:14	reflective 140:16 216:4	regulator 212:16 213:9
217:6 233:3	66:15 97:2 102:15	reforming 196:12	regulatory 16:14 18:13 33:5 35:16
receiver 212:16	112:20 137:18,19	refused 29:12	40:2 50:12 115:20
recency 178:10	168:11 186:3	reg 145:22 159:22 180:1	143:11,18 144:4
recertify 97:19	209:13 214:21,22	reg's 82:2	144:10,13,21
reciprocal 107:7	219:9 221:17	regard 61:8 116:7 161:8 173:9	145:3 161:6
reckoned 29:2	222:5 232:16	regarding 5:11 6:8 6:15 12:18 66:16	181:21 182:2,3,13
recognize 41:18 43:14 144:9 149:8	233:18	67:4 69:14,17	Reilly 3:22 45:22,22
157:5 174:19	recorded 102:16 128:6	124:18 129:3	Reinauer 3:6 44:16
210:4	recorder 102:7 115:4,22 123:1	138:8,9 166:18	reiterated 203:22
recognized 139:20 158:8 160:9	recorders 101:4,12 101:13,20 102:13	183:6 191:21	related 141:17 157:6 185:5 186:2
167:18	115:8	197:3 198:22	186:17 189:18
recognizes 40:22 198:9 213:3	recording 9:15	199:6 208:4	relates 185:12,14 185:18 187:22
recommend 96:18 102:12 126:2,8,12	recordings 118:21 119:8	215:10,18 221:19	189:3,9 190:16
127:6	recordkeeping 179:8	regardless 84:20 93:15 95:4 98:10	relating 168:6 184:1 222:12
recommendation 82:12 109:17	records 97:5 118:8 169:22	108:17	relation 87:14 184:5,6
117:15 125:9	recover 139:11	Register 135:21 186:6	relationship 8:1 9:5 19:2,14,15
127:9 136:5 207:1	recreational 49:9	registered 185:9	relative 91:8
recommendations 5:11,13,18 6:8,15	recruit 30:15	regs 146:1,2 151:11 160:21	relearn 227:6
13:5 18:14 43:10	recurring 160:14	regulates 211:12	relevant 128:11
64:8 66:16 67:4	red 190:16 205:4	regulating 214:12	reliable 85:1 91:19 122:16 127:11
68:8 72:2,13 76:5	redefining 69:18	regulation 38:3 42:7 80:13 82:20	reluctant 154:7
77:2 79:17 120:6	redirect 180:7	88:1,14 98:5	rely 127:7
129:14 131:20	reduce 37:1 188:2 232:19	104:3,6 119:7	relying 126:13
136:19 139:17,18	Redundant 93:6	185:19 186:7	remain 70:10 137:8 137:15
183:14,17 185:1,4	refer 74:1 151:18 188:18 189:20	192:21,21 206:12	remaining 202:22
185:5 191:13	reference 185:16 189:8 222:19	regulation's 88:8 206:12	remains 37:21
198:22 199:6	referenced 121:17	regulations 5:19 21:4 36:21 41:3	remarks 5:4,7,8 8:6 8:9,14 9:7 11:15
207:11 215:10,18	references 115:4	45:20 63:6 102:2	11:16,19 18:5
217:4 224:22		115:5 121:9	22:15 23:2 24:10
233:3		145:13 146:4	25:14 26:3 43:4
recommended 76:11			

- 49:12,14 55:7
221:21
remember 182:7
remove 70:6 216:3
removes 52:15
renew 176:2,9
renewal 175:22
176:2,8,17,18
repaired 131:7
repeating 52:13
replace 82:14
111:19 216:4
replaced 81:7
replies 159:20
report 10:21,22
13:1,2 64:8 66:11
67:9 68:19 69:2,6
71:12 72:12 73:9
73:12 77:1,7
96:18,21 110:7,17
112:7 113:21
114:3,20,21 115:4
116:6 117:11
120:6 121:17
128:18 129:1,4,6
129:8,12,15,18,22
130:1,6,13 134:9
134:12 136:1,11
136:13,16 137:2
139:1 140:13,15
141:20,21 183:13
183:13 184:2
185:17 186:14
189:18 191:13,17
191:22 194:6
197:3,6,11,18
198:12,21 200:8
200:22 201:10
202:11 208:8,19
208:20 221:16,19
232:5,15
report's 140:8
reporter 9:14 59:13
reporting 131:9
reports 11:6,7
18:10,11 67:1
136:18 138:3
194:14,21
- represent** 14:12,14
16:18 59:12
115:16
representation
202:6
representative
72:17,21 137:9
161:3
represented 145:9
192:16
representing 14:19
15:2,6,10,14,18
15:22 16:4,9,14
16:22 17:4,8,12
17:17 45:9 46:11
199:12
represents 211:2
reproducing
103:13
request 17:19
118:2 157:7
178:19
requested 118:21
154:4 155:21
156:19 233:17
require 41:4 86:16
94:15 115:21
131:21 180:21
203:9
required 88:2 90:18
102:11 104:4
112:2 181:3 185:7
188:10 190:19
191:1 201:22
204:2 206:7 207:4
232:20 233:5
requirement 79:17
93:5 98:22 101:6
101:18 102:6,22
110:13 115:10,11
115:16,20 119:12
133:2 137:5
150:15 152:8
203:15,20,21
205:19 206:1,2
212:1,6
requirements 6:9
9:2 10:16 50:12
- 75:3 77:13 78:13
80:7,9,10 81:3
88:4 89:4 92:13
93:2 94:15 96:4,4
96:10,16 98:21
99:9 100:17,19
103:11 106:12
110:8,12 113:1
114:17 116:18
131:20 133:17
199:1,7 203:3
211:16,17 212:11
212:15,17,20
214:1
requires 56:22
203:5
requiring 115:18
research 70:9
162:10
resolve 150:4 164:9
202:8
resolved 229:15
resources 28:18,18
33:22 41:5,5
213:10
respect 151:9,17
155:15 199:22
respectfully 151:10
respond 53:17
response 14:2
65:18,20 142:4
198:5 219:3
220:12
responsible 38:10
54:11 57:9 145:12
145:18 177:3
205:20
rest 25:6 34:11
48:10 53:1 65:2
148:21 202:17
203:3 214:14,16
restrict 166:19
restricted 166:19
167:20
restriction 166:21
restrictions 167:13
restrooms 48:13
rests 115:8
- result** 35:1,4 39:16
84:5 167:12
resulted 40:12
results 38:4
retailer 84:13
retired 71:5
retrain 112:14
return 66:9 154:4
reverse 29:21
review 11:7 30:4
57:10 64:20 136:6
138:12 139:1,15
139:22 140:3
141:21 150:9
181:16 184:9
reviewed 128:20
216:1
reviewing 10:22
68:6,8 138:17
165:2 229:7
reviews 56:22
125:2
revised 141:9
revising 68:5
146:14 152:22
revisit 175:10,11
revisited 175:18,21
reward 213:22
rewarded 213:9
rewarding 114:11
RFPEW 146:8
Rhine 108:6
Rich 181:18
Richard 4:5 47:10
59:15 60:16 61:2
Richmond 2:11
16:20,21,21 30:22
150:11,12,12
197:15,17
ride 204:12 219:10
219:20
right 8:2,16 9:8
26:18 36:4 40:18
48:6 51:5 56:8,13
61:18 63:1,3 65:1
66:8 71:22 81:16
82:2 85:18 93:12
95:7 98:7 101:9

112:7 113:9
 119:18 128:4,5
 134:13 142:13
 152:21 153:2
 156:13 176:7
 181:5,21 182:18
 184:22 185:4
 196:12 201:4
 204:9 216:9
right-hand 111:21
ring 137:22
ringing 12:21
risen 89:1
risk 29:18 91:17
 106:15
risk-based 106:12
risk-filled 39:12
risks 6:16 9:6 37:1
 38:18 76:8 213:10
 214:2 215:10,18
river 3:19 46:6 62:3
 81:11 82:4 91:14
 99:16,20,21 108:6
 161:15 162:1,22
 171:11 178:11
 185:20
rivers 2:4 17:1
 37:19 62:15 80:18
 81:17 91:10,17
 94:12 98:4 103:22
 119:22 120:8,9,10
 120:12,20,22
 121:1 152:7,9
 160:17,21 161:1,9
 162:5,12 163:1
 167:19 190:17
 199:20 204:11
 216:12
road 90:14 104:2
 230:7
roads 30:22 52:15
rock 55:8
role 41:19 42:4
roll 14:9
Ron 3:8 47:16
room 50:19 111:22
 169:9 203:17
 221:5

rooms 1:18 20:17
 212:4
Rose 88:20,21
 98:11 102:19
 113:12 118:21
 132:22 133:1,1,10
rotations 36:17
Rouge 30:20
round 178:16,20
 179:19,19
route 60:5,7 92:18
 140:20 154:6
 156:7 160:13,14
 162:19 163:15
 165:16 171:10
 178:16 179:1,4,10
 186:12,20 188:15
routes 112:4 113:7
 120:3 121:6,10
 140:16 164:11
 179:12 189:2,4,7
 222:13 223:15
routinely 164:4
 225:10 228:7
RTCM 75:2,9,16,18
 75:22 77:8,14,15
 77:21 78:4 83:8
 83:12,14,14,18
 85:10 86:20 87:2
 87:4 88:10 89:4
 90:6 92:6 94:14
 95:16 96:10 101:4
 101:19 105:20,21
 106:1 107:12,13
 108:17 112:9
 113:1 115:8
 116:15 125:1,8,20
 126:11 127:8
 131:20
RTCM-class 90:2
rule 182:6,10,11
 194:8
rulemaking 33:12
 52:5 53:21 182:7
rules 36:11 41:14
 74:6,9,12 88:3
 104:2 162:21
 163:2 182:4 196:7

run 31:10 93:5,12
 93:19,21 98:11,12
 106:21 112:8
 114:15 130:1,2
 145:11 161:14
 165:5 211:22
 224:18
running 52:4 66:6
 93:5 100:12
 182:19 187:2
 195:11 209:3,5
runs 30:21
Rushing 2:21 17:2
 17:3,3,4 199:5,11
 199:12,12,17
 202:14,15 203:2
 204:10,13 205:6
 205:15 206:6
 208:1,18,22

S

S-57 83:3 103:14
S.E 1:19
sad 193:12
safe 12:20 36:9
 42:16 52:7 125:18
 127:11
safely 52:11,19
 53:3 54:13,14
 80:16 228:13
safer 21:20 42:12
 214:3
safety 1:4 10:19
 11:1,2,8 12:17
 18:12 21:13,16,17
 21:19 22:1 32:22
 33:9 34:1 37:17
 38:8,14 40:5 42:9
 46:21 48:2,12,19
 53:19 54:8,15,17
 92:17 112:16
 118:4 131:12
 181:10 184:9
 185:3,6 186:10
 187:11,19 188:21
 189:10 211:6
 212:8 213:5,19
 231:6
sailing 26:14 74:5
 188:15
sake 123:22 134:22
salt 86:9
Salyers 2:22 13:15
 13:16 17:6,7,7,8
 218:4,5
sand 190:18
sat 26:5
satisfaction 81:4
satisfy 78:12
 179:10
saturated 90:4,7
save 148:7
saves 21:21
saw 18:12 24:2
 36:7
saying 25:18 81:2
 108:17,19 145:6,8
 172:3 187:5 190:7
 199:18
says 26:5 27:19
 82:21,21 83:3
 90:9,10 103:22
 104:5 115:11
 119:3 148:20
 154:22 177:12
 183:3 207:10
scale 80:15 83:1
scenes 208:10
SCF/Lewis 16:22
schedule 136:9
 140:7 141:10
 142:14 196:4
 200:14 209:3
 222:1
scheduled 48:9
 66:5 68:12
scope 163:14 164:6
 166:15 206:19
 207:3
Scott 3:12,13 19:18
 46:15 55:11,16
 60:8,12,13 62:5
 62:17
screen 78:16
 100:13 104:9
 105:6 111:6,18

screens 111:14,17
sea 91:14 160:1
 163:9 164:4,8,13
 167:3 169:4,6
 170:16 174:8
seaboard 187:6
SEAC 98:11
seamen 185:7,13
Sean 3:22 45:22
searchlight 94:17
second 7:10 13:18
 13:19 46:17 65:8
 65:9,10 70:19
 138:18,19,21
 153:19 166:15
 177:5 197:14,15
 197:16 209:9
 218:3,4 220:4
 226:15 233:14
seconded 141:19
 218:6
Secondly 132:20
secretary 125:15
 126:17 232:8
section 230:16
sector 24:22 29:16
 32:1 52:9 154:13
 155:12,13
sectors 155:9
security 24:3 29:17
 49:10
see 11:7,10 13:4,7
 19:5 23:6 26:17
 26:22 40:15 50:22
 53:18 54:12 56:19
 59:18 66:12 70:4
 71:4 79:12 81:6
 91:4,11 107:5
 111:4,9 116:6
 120:15 123:1,2
 132:19 135:4
 140:11 148:8,8
 152:1,2 153:12
 157:18,19,20
 158:6 159:3 161:3
 171:2 172:1
 173:19 179:15
 187:4 190:4

195:15 196:20
 213:8,13 216:20
 221:7 229:22
 230:12,22
seeds 222:8
seeing 109:8
 215:15
seeking 149:2
 158:22
seen 31:8 134:9,20
 136:11 157:5
 159:14,20
segment 14:14
 33:6 122:18
segments 26:19
 31:5,17 190:13
selections 233:11
self-regulatory
 38:11
sell 90:8 127:2
 134:3
send 64:4 145:2,3
 147:3,19 151:19
 151:19 152:13
 153:4 154:7
 155:16 164:12,13
 164:14 166:7
 169:16,20 171:3
 179:14,15 198:12
 226:1
sends 148:2
senior 16:3 18:20
sense 82:10 86:14
 86:16 90:14 95:18
 97:6,12,16 99:17
 100:14,22 101:3
 104:19 105:22
 108:3 112:3,20
 118:16 120:13
 123:20,21 124:12
 128:11 145:5
 158:6
sensible 106:15
sent 64:17 140:19
 141:8
separate 82:16
 94:22 110:11
 158:5 177:6

separated 133:4
September 185:17
 232:11
serious 37:6
serve 166:20
 217:12,21 219:13
served 22:19,21
serves 33:17
service 3:15,18
 6:13 45:18 47:11
 59:15 70:10 144:8
 158:8,16 159:15
 160:1 163:9,10,16
 163:19 164:5,8,10
 164:14 165:2,18
 165:19 166:19
 167:4 168:7 169:4
 169:6,10,13,18
 170:11,16 175:3
 176:3,4,10 183:2
 186:12 199:4,10
 206:21 228:13
services 3:17,19
 30:19 32:10 46:7
 47:4 62:4 165:13
 168:19 180:10
 226:19
serving 217:18
session 10:16
 137:8 200:5
set 13:5 24:13
 43:22 61:6 75:10
 89:14,15 110:11
 130:1 185:5 196:4
 200:17
sets 35:3 110:15
setting 22:13 37:17
settling 109:16
setup 93:16
seven 38:22 56:15
 149:20 157:10
 199:22
shaking 172:1
shape 92:22 123:11
shapes 118:13
share 8:14 10:18
 11:3 18:6 44:4
 135:2 180:12

shared 25:18 43:11
 43:20
sharing 41:12
 43:22
shave 35:19
sheet 49:3 230:16
sheets 10:1
shelf 21:19 92:8
 98:8
Shell 17:15
shift 211:3,9 212:9
 213:16
ship 2:7,9 16:19
 26:7 39:5 40:9
 175:14 226:18
shipbuilding 28:16
shipper 2:19,20
 202:18
shippers 17:13,17
 25:10 28:9
Shipping 41:18
ships 27:13,20 29:6
 32:13 38:18 39:3
 175:12,13 187:22
shoals 101:1
shockingly 27:16
shoe-in 79:4
shook 61:13
shoot 37:8
shoots 80:22
shop 145:22
shore 205:9
shoreward 163:11
short 149:5 174:1
shortcomings 85:3
shoulder 41:8
show 11:3 38:4
 72:6 75:1 78:10
 80:20 107:4
 120:14 171:19
 176:22 179:2,19
 200:17 220:22
 222:20
showcased 10:19
showing 78:15
 80:18 101:22
 171:21 176:9
shown 148:7

shows 87:13,14
shrunk 27:3
shut 203:10
side 109:6 111:5,13
 111:13 124:9
 143:11,18,19
 144:10,11,13
 145:4,4 171:17
 180:1 231:17
sign 10:6 48:7,7,11
 49:3 66:2
sign-in 10:1 49:3
 230:16
signed 10:4 166:10
 230:21
significant 39:6,15
 39:20 42:6 51:1
 52:5 189:18
significantly 24:21
 32:5
SILAS 4:2
Silicon 93:4
similar 131:8
simple 87:16
 177:19 224:5,6
simpler 201:1
simplify 73:10
simply 35:20
 224:20
Simultaneous
 123:3 139:8
 153:14 166:1
 176:11,14 204:8
 218:16 226:10
 228:16 229:13
simultaneously
 156:9 196:18
sincere 31:14
single 144:2,16
singularly 36:20
sinking 39:18
sir 17:21 23:1 43:3
 43:13 48:5 49:13
 61:1 117:22
 205:15
sit 104:8 126:11
site 159:3 160:1
sites 153:8

sitting 85:9 89:10
 89:21 94:22 103:7
 108:14 122:9,10
 124:2
situation 106:17
situations 95:10
 106:6 112:1
 164:20
six 38:21 53:8
 57:16 149:20
size 26:11 27:11
 39:5 50:19 211:18
 211:19 212:1,7
sizes 118:14
skill 97:21
slate 233:12
sleep 60:10
slide 78:11
slots 79:5
slow 28:20 56:7
small 27:16 38:19
 39:1 40:8 192:5
 204:1 211:21
smell 147:3
snap 39:15
sneak 209:20
software 37:14
 84:7 86:6 92:13
 108:10
software's 109:3
software-based
 96:12,13,19 97:9
 101:10 106:19
 109:2,8,15 115:15
 117:12,18 124:6
SOLAS 93:20
 116:22
SOLAS-type
 117:17
sole 152:22
solid 19:14
solution 93:8
 133:21
Solutions 17:8
solve 222:15
somebody 211:22
 228:4
somewhat 187:20

son 35:13,18
Sons 15:1
soon 18:8 55:7
 56:11 69:4 114:14
 136:8 153:13
 212:15
sooner 103:6
 130:12,14
sorry 139:10
 140:14
sort 116:10 173:1
 177:15 188:3
 206:13 213:13
Sound 106:21
sounding 131:11
sounds 121:2
 155:12 160:18
 216:12
soup 114:10
source 186:8,13
 188:18
Southeast 2:5
Southern 3:22
 45:22
Southworth 2:9
 16:16,17,17
Soybean 31:2
spaces 203:11,17
span 36:15
speak 18:6 42:21
 49:21 58:19,22
 69:19 114:1
 132:21 193:8
 222:4 230:21
speaking 22:6
 123:3 139:8 147:7
 153:14 166:1
 176:11,14 204:8
 218:16 226:10
 228:14,16 229:13
spearhead 217:10
special 126:14
 183:8
specialist 46:21
specific 146:22
 147:4 154:9 159:3
 185:2
specifically 24:20

27:2 102:4 119:7
 152:6 185:10
 223:11
specificity 34:16
specified 120:3
speech 25:13
speeches 25:20
speed 87:15
spend 65:2 93:16
 93:17 125:7
spent 38:5 200:4
spills 53:8,9
spin-off 102:14
spoke 50:6 173:20
 174:15
spoken 50:4 187:1
sponsor 8:7 18:20
 168:12 193:3
 209:10 225:6
spoofing 123:12
spot 104:14
spray 86:9
spread 99:21
spreadsheet 56:16
spring 5:10 64:13
 64:18 65:4,12
 68:10 69:5 70:1
 77:1 79:6 82:4
 116:17 202:10
 208:21
spurred 168:14
St 46:7 62:4 84:21
 143:12
stability 186:22
staff 55:17 58:9
 59:4 111:2 152:18
staffs 55:22
stage 40:16
Stallone 31:9
stance 95:6
stand 44:5 55:5
 58:12 64:2 67:12
 125:21 220:19
standalone 174:21
standard 38:16
 77:8,14 78:3 84:1
 85:13 86:5,8
 88:11 90:6 107:18

107:20 109:16
 115:7 125:4 127:8
 150:4 188:8
standardization
 226:20 227:9
standards 7:9
 18:15 19:12,21
 46:22 75:10 77:9
 77:13,16 78:8,13
 86:1 107:15
 109:19 114:9
 116:16 145:14
standing 29:2
 38:13
standpoint 29:5
 32:22 38:14 60:17
 115:19 162:4
stands 25:5 27:11
 27:21
standup 142:17
 143:8
star 55:8
start 14:9 35:4 55:6
 56:11 57:21 73:16
 111:14 123:19
 151:8,15 153:5
 162:16 169:14
 170:19 171:17
 172:10,20 173:4
 182:7 195:12
 199:18 212:9
 226:9 228:4,4
started 30:2 53:5
 72:15 74:18 76:18
 77:8,20 79:20
 125:5 128:13
 143:8 151:1
 170:19,20,20
 171:8 172:14
 178:6
starting 44:3 53:1
 68:18 74:1 137:8
starts 170:11
 171:15 172:3,5,9
state 9:12,19 38:15
 59:12 233:1
stated 129:6 169:10
 169:12,14

statement 9:3 57:3
 90:18 173:8,15
 177:15 183:1
 194:13,20 196:19
 207:8,13,17 208:5
 209:8 217:1
 220:21 226:1
statements 96:17
 226:7 231:16
states 1:1 26:12
 35:17 109:8
 159:10 169:13
 188:12
status 56:9 67:9
 72:11 112:7
statute 83:3
stay 87:22 158:13
 233:19
stayed 145:11
staying 35:21
STCW 146:5,9,10
 146:20 169:7,8
 171:9,16 201:8,9
STCWASK 146:20
Steersman 6:12
 199:9
steersmen 199:3
step 40:4 76:11
stepped 46:17
 88:16
steps 105:17
Steve 11:14 14:10
 15:4 20:21 139:10
 218:3 219:15
 221:7 227:16
 232:17 233:1
Steven 1:20 2:2,4
stewardship 33:1,9
 42:10
Stewart 4:2 47:19
 47:19
stick 214:17 216:7
sticking 216:15
stiffen 139:16
stone 53:21 134:2
stood 27:8 60:8
stop 91:12 94:14
store 132:16

story 35:19
straight 84:14,17
 93:3 132:11
straighten 20:18
straightforward
 75:20
strategies 28:20
strategy 27:17
 29:22 30:1,3 31:4
strawman 68:18,20
 70:12
streams 30:11
strength 29:15
strengthen 31:5
stretch 100:3
striving 33:13
strong 37:21
strongly 115:18
 170:6,17 171:7
structural 37:3
 51:16 114:2
structure 37:11
 40:2 143:15
 186:20
struggles 116:6
struggling 24:15
 26:20 78:7
study 98:6
stuff 8:2 19:2 74:12
 74:13 75:2,4,5,12
 75:15 76:17,20
 78:14,22 79:1,18
 79:19 80:8 81:5,8
 84:3 86:10,11,16
 87:14 88:7 89:7
 92:15 94:19 95:13
 96:5 97:13 99:10
 104:4,9 105:12
 107:21 108:1,3,20
 110:1,9 112:9
 113:16,20 114:2
 118:3,5 122:13
 123:14 124:3,4
 128:22 132:3,6,11
 133:20 140:17,21
 141:3 161:5
 189:16 227:9
Sub 191:3

Subchapter 5:19
 8:10,21 21:4
 22:10 33:5,11
 35:11 38:2,9
 40:20 41:13 50:7
 50:10,15 51:1,9
 53:22 54:6 57:7
 59:6 60:6 61:12
 64:9 100:17 120:4
 120:12,17,21
 128:6 160:22
 161:11,16 162:2
 167:19 178:9,14
 182:8 183:15,18
 184:1 186:16,17
 186:18 188:9
 197:4,19 198:12
 204:1,1 210:20
 211:8 216:5,10
 231:7
subcommittee 7:20
 10:21 18:9 66:11
 67:1,3,8 68:17
 69:22 70:4 72:12
 73:1 80:2 82:13
 85:20 87:7,21
 90:19 92:10 94:1
 101:12 102:1
 103:2 110:18
 113:3,22 117:8
 135:11 141:14
 183:4,22 184:14
 185:1 191:14
 194:2 197:4
 198:17,21 199:5
 207:1,14,16
 208:14 217:13,16
 218:7 221:6,9
subcommittee's
 102:11 191:22
subcommittees
 7:12,18 8:18
 12:12
subject 26:1 168:8
 217:2
subject-matter
 55:3 58:5
subjects 123:17

submission 185:15
submit 122:14
 134:11 164:4
 177:16
submitted 56:20
substance 129:22
substantial 27:19
 27:22
substantially 130:3
 130:8 175:16
substantive 224:21
succeed 42:9
success 34:10
 41:11
successful 214:11
suffice 224:7
suggest 120:1
suggestion 119:21
 193:20
suitable 87:5,6,10
 117:7
SULLIVAN 4:3
sum 191:12
summer 50:2 64:19
 65:5
supply 2:15 59:21
support 40:3
 108:22 223:8,19
supports 32:3
supposed 27:19
 76:22 193:5,13
sure 7:21 20:9 22:2
 35:5 37:8 49:2
 51:16 54:4,13
 55:4,9,18 57:11
 57:19 58:1 62:1,6
 63:14 100:22
 104:10,13 119:13
 128:22 130:7
 134:17 143:7
 148:3 149:7 165:9
 170:5 177:4 181:6
 191:6,8 195:20
 207:12 209:12
 227:20 228:17
 229:16
surely 192:12,18
surpasses 112:22

surprisingly 59:17
surveys 51:19
survive 34:12
sustain 29:7
swallow 97:7
 103:14
swap 111:18
switching 62:8
sword 173:13
 174:10 175:20
syllabus 201:14
Sylvester 31:8
synthetic 105:12
system 9:1 21:16
 21:18,18,20 54:15
 54:17 56:10 74:2
 74:4 78:18 82:16
 85:4 86:12,15
 87:3 88:17,21
 89:21 91:5,11
 92:13,18 93:5,6
 93:11,12 94:13
 96:13,20,20 97:9
 97:11,11 98:13,15
 102:8 104:15,16
 105:18 106:19,19
 106:22 107:1
 109:2,9 113:12,14
 116:11,12 117:13
 124:6 125:12,12
 126:7,22 127:4,11
 128:5 129:1
 130:22 131:4
 133:1,1,2,5
 138:10 139:2
 141:15 180:14,15
 195:10 203:12,12
 212:9 213:5,20
systematic 36:11
systems 5:14 21:13
 37:15 45:16 54:8
 72:2,13 73:22
 74:5 75:11,14,22
 76:6 77:5 78:20
 78:21 83:8 84:11
 85:2,17,19,21
 87:1 90:14,18
 91:15 93:7 96:11

97:12 101:5,10
 102:19 103:1
 105:3,10 109:15
 109:18,21 110:9
 110:16 113:5,5
 114:16 115:9,14
 115:15,17 116:19
 116:21 117:2,6,14
 117:15,18 118:4
 122:5,6 123:10
 124:19 125:5,6,17
 127:5 132:2,7,9
 132:10,12,22
 133:3 211:6

T

T-O-E 26:8
table 9:8 85:9 94:2
 124:2 202:3,4
tabled 139:22
 141:20
tables 185:11
taboo 123:18
tack 119:3 127:17
tackle 56:7 123:5
 230:9
tackled 82:17,18
Taft 2:5 15:12,13,13
 178:5,6,7 180:3
 185:19 186:4
 197:12,14
tag 183:7
take 10:6 12:13
 33:8 34:19 36:8
 40:15 43:16 49:3
 60:16 63:18,20
 64:3,11,16 66:8
 72:15 75:21 76:11
 77:2 79:12 95:12
 98:7 100:21 101:2
 104:7 106:13
 109:19 111:15
 112:12 113:16
 114:15 135:5
 148:10 152:17
 153:5 169:1 182:4
 194:10 201:20
 209:4,7 215:5
 217:3 221:14
 222:9,16 225:6,12
 226:13 230:11
taken 25:4 34:22
 40:6 95:6 148:22
 222:18
takes 37:6 57:1
 65:1 133:4 150:6
 177:2
talk 7:20 21:6 25:22
 57:2 76:13 81:5
 83:10 84:20 91:15
 95:19 107:17
 109:21 111:16
 145:16 146:2,11
 160:16,18 179:22
 181:4
talked 23:12 24:17
 116:20 117:1
 124:2 156:14
 173:11 187:15
 189:10 213:4
talking 22:10 24:19
 25:20 34:15,16
 69:17 83:7 86:21
 86:22 87:8 93:14
 96:12 119:16
 120:7 121:16
 122:6 124:4
 128:13 180:20
 185:19 211:5
 216:20 227:1
talks 132:22 133:2
 154:20 160:1
taller 35:18
tangent 113:18
tank 178:12,13
 205:8,10
tankerman 146:13
 182:5 204:19
 205:11
tankermen 170:12
 204:12,14,16
 205:8,9
tapped 137:21
targets 80:18 107:5
task 5:12,14,20
 6:13,17 9:3 57:3

- 64:10 66:19 67:7
67:10,15 68:7
69:15 72:3,14,17
73:13,21 75:8,15
76:14,16 90:18
96:17 99:3 117:8
117:14 123:5
135:12,14 168:4
181:15 183:1,3,16
183:19 184:8
187:15 194:13,20
196:19 197:20
198:14,17,20
199:4,10,13,14,15
200:3 207:12,17
208:2,4,20 209:8
215:6,12,13,14,15
215:16,20,22
216:13,18 217:1,3
217:6,11 218:19
219:10 220:4,7,18
220:21 221:3
222:16,16,17
223:4,6 225:2,7
226:1,6 227:20
231:16 232:4
tasked 68:6 96:6,9
tasking 67:14 75:7
76:9 79:16 102:14
116:9,16 183:8
194:1 207:8 209:7
215:3 222:5 226:2
229:8,15 230:6
taskings 121:7
tasks 8:1 64:3
67:16 72:19 157:6
167:12 208:15
219:8 230:12
taxi 219:20
taxicab 219:9
teach 213:20
team 40:7 64:10
198:13
technical 17:16
40:11 72:17,21
73:18 74:16,20
108:18 127:4
technologies 70:20
70:20
technology 23:5,20
72:7 105:7
technology's
104:19
teleconference
5:10 64:14,19
65:5,13
tell 12:17 14:13
26:4 61:17 67:12
92:13 106:6 107:1
133:10 151:9
156:20 181:18
telling 49:17 63:15
100:4 105:15
106:9 107:22
113:13
telling's 49:18
tells 126:9 172:2
ten 82:2 90:1
103:10 106:10
125:4 231:18
ten-minute 214:18
ten-year-old 103:18
tends 72:22
Tennessee 46:1
tens 125:7 127:10
180:20 191:6
202:19
Terence 3:11 44:22
term 70:6,13 71:5
187:12
Terminal 2:3,18
terminals 14:19
15:22
terminate 131:10
terminology 70:3,5
terms 8:20 31:21
34:19 50:4 51:2
52:10 53:11 55:9
69:20 129:7 131:1
168:6 186:15,16
186:18 222:12,19
222:20 223:1,11
Terral 2:16 15:20
15:21,21 121:21
121:22 138:10,11
138:11 139:7,12
139:15 224:1,1
test 85:16 90:6
testing 90:13
Texas 46:19
thank 7:14,15,16
11:12,17,20,21,22
12:1,11 13:8
17:21 18:2,18
19:8,17 20:10,12
20:14,18,19 22:4
22:5,14,16 23:1,2
23:3 42:20,21
43:3,3,4,13 48:4
49:12,20 50:21
58:16 59:7,9 61:2
63:21,22,22 64:12
66:3,12 71:6,20
71:22 72:16 73:3
73:4 114:19
127:11,12 134:5
135:9,18 136:15
136:19,21 137:16
140:14 143:3
149:6 157:14,15
160:3 178:3,4
180:3,5 182:18
191:14,18 192:22
193:1 197:1
198:19 199:11
202:13 207:21
210:1 214:7,8,16
216:19 221:5,9
231:12,21 232:1
233:9,20
thankful 50:18
thanking 22:12
thanks 43:1 46:14
183:11 208:22
209:19 225:19
Thanksgiving
130:11
theory 206:9
thing 9:17 13:11
14:7 23:11 36:4
37:13 71:18 80:4
85:18 87:11 89:5
90:10,17 96:7
98:10 102:19
107:4 123:15
128:9 147:9
153:19 161:16
189:9
things 11:15 21:14
37:8 53:3,14,17
54:19 60:9 61:12
61:15 70:1,2,14
77:15 80:1,12
89:22 96:5 108:13
160:11 165:10
183:2,4 188:13
195:1 204:5
206:14 210:6
221:14,15 222:2,7
225:11 230:8
think 20:1 21:2,21
23:20 24:14 25:7
26:9 29:17 31:16
33:3 34:7,11 35:7
35:7,9 36:16,19
37:12 38:3,16
39:3,19,19 40:5
40:12,13,17,22
42:16 49:16 51:11
52:6,12 53:18
56:10 59:19 60:22
61:5,21 62:19
63:3,5 66:4 72:8
87:19 91:19 92:3
92:12 94:5,10
99:13 100:9,14
102:8,9,10,18
111:11 116:12
117:9 118:5
123:21 127:22
128:4 130:4 131:2
133:4 134:8,22
135:12,14 136:4
138:12 142:19
152:7,15 155:18
158:20 159:13,22
161:11 162:18
175:11,12,20
176:15,20 179:20
182:12 184:20
189:17 193:6
194:4 200:5,10

201:4 203:13
 209:22 210:7,14
 211:20 214:5
 222:18 223:2
 225:8,14 226:5
 227:7,14,15 228:2
 228:15 230:17
thinking 128:21
 135:13 180:17
third 12:3 51:18
 57:12,13 172:18
 172:19 195:19
third-party 57:5
 206:4
thirdly 201:19
Thomas 136:14
 210:7
thoroughly 134:9
thought 23:6,14,17
 26:2,22 75:19
 85:20 86:13 97:6
 135:14 150:16,19
 190:2 223:8
thousands 32:4
 125:7 127:10
 180:21 191:6
threatens 29:1
threats 29:1
three 27:9 30:19
 67:15 178:17
 224:5
three-four 84:9
thrive 34:13
thriving 25:2
throw 88:19 227:9
 230:4
thrown 73:20
 125:20
thrust 36:3
thumb 132:3,4
THURSDAY 1:12
Thursdays 56:2
ties 26:17
tight 99:17 153:1
tilbury 8:22
time 7:19 9:18 10:8
 11:5 12:3 18:5
 20:11 24:5,14

26:21 28:5 29:13
 29:14 38:1,4
 40:15 41:4 48:19
 49:22 54:3,3,14
 57:1 58:3 62:8
 63:20,21 64:2
 65:2 66:6,10
 79:10 125:1 129:9
 131:6 134:13,18
 135:2,22 137:1
 138:14 141:19
 148:7,20,21 150:7
 152:17 157:1
 158:15,16,18,21
 159:5,12 160:2
 162:8 163:4,17
 165:20 169:18,19
 170:1,3,5,7,10,11
 172:4,5,9,10,18
 172:19 173:4,9,12
 173:16,17,22
 174:1,5 175:10
 176:1,3,4,10
 177:6 182:4
 196:10 197:7,22
 209:20 210:9,19
 226:16 230:11
timeline 50:13
 57:18 148:17
timeline's 149:16
times 39:5 126:5
 149:21
Tina 3:7 45:8
tiny 100:20
tipping 26:21
title 9:13,17,20 10:3
 23:7 44:6
TOAR 152:5 157:11
 166:18,21 167:2,5
 167:12 168:4
 177:6,6,11,12,13
 177:16
TOARs 152:10
 153:21 177:9
today 8:2 9:13 12:1
 13:9 20:2,6 21:2
 22:5,7,14 24:13
 25:11 27:20 31:6

31:15 33:2 35:17
 36:13 42:13 43:2
 43:15,19 44:2,2
 49:21 50:3 66:22
 70:16 73:4 90:12
 124:21 131:10
 140:14 141:2,4
 142:21 145:16
 180:12 181:3
 182:20 183:6
 193:2 202:12
 208:9 209:12
 210:5 212:14
 222:11 231:2,5,10
today's 25:16 231:6
toe 12:19 26:8
 212:13
told 21:16 26:3 50:9
 50:19 106:3
 127:20 181:6
Tom 3:17 4:3 47:3
 127:15 168:18
 171:12 180:7,9
Tone 4:3 46:20,20
tonnage 60:5,7
 158:7,18 159:16
 174:9 175:19
tons 32:13 185:9
top 89:1 93:9
 112:16 128:12
topic 184:8
topics 8:4 25:21
 44:1
TOPOCO 55:21
 56:1 57:2 63:17
 193:4
total 158:20 159:6
totally 171:4
touch 94:14 107:11
 141:16
tour 165:20
tours 165:21
tow 133:7,8,11,15
 133:18 205:8,10
towboat 32:1 33:13
 37:10 39:4 40:9
 89:11 103:22
 151:9 153:21

190:17
towboat/tugboat
 25:9
towboats 26:12
 38:15 39:2
towing 1:4 2:2,8,10
 2:11,13 3:6,20,22
 4:5 5:14,20 6:11
 6:12,16 9:5 14:11
 14:12 15:5,11,14
 15:18 16:18 18:15
 21:1 24:8,21 25:3
 26:14 31:6,20
 33:16 34:1 35:5
 36:22 38:6 39:20
 40:5,13 41:12
 42:16 43:13 45:4
 45:9 46:1,13 47:7
 47:9 51:3 52:7,10
 52:20 53:9,16
 55:20 59:21 60:1
 60:4,19 63:2 72:3
 72:14 88:16 94:16
 98:17 99:7,12
 100:16 101:9
 111:5 112:14
 143:10 146:13
 151:13 153:21
 167:11 168:7
 171:17 177:8,10
 177:10,19 178:8
 178:10,13,15
 180:18 181:10
 182:11 183:16,18
 185:8,13 187:18
 188:6 189:19
 190:1,13,16 193:6
 196:2 199:2,3,8,9
 205:7 211:1
 213:12 214:12
 215:11,19 218:20
 228:18,21 231:6
tows 39:8 62:7
 202:18 204:10,15
 204:15 229:9,10
TPO 57:4 193:18,21
 194:17 195:2,9
 196:6 198:15

TPOs 57:9,20
TRACI 4:2
track 36:19 42:17
 101:22 112:20
 179:9 194:5
tractor 227:2
 228:10 229:9,10
trade 27:2 28:3
trading 17:16 27:7
 27:12
traditionally 164:22
 167:18
traffic 37:20 100:10
train 30:15 76:6
trained 89:8
training 6:9 9:1
 10:13,14,17 37:13
 96:3,4,9,16,19
 97:1,1,2,5,16,18
 116:11,18 117:1,2
 117:4,13,17,19
 118:3 127:17
 128:2,6 137:4,8
 137:15 138:2,4
 151:6 165:8,9
 169:10,13,19
 170:3,5,7,10,16
 170:19 171:2,5,8
 171:14 172:10,14
 173:3 177:4 199:1
 199:6,14 201:9,14
 201:15,18,19,22
 202:1 203:2,6,7,9
 203:10,15,21
 204:21 205:2,5,18
 205:22 206:2,7,8
 207:5
transfer 192:18
transferred 169:22
transfers 189:19
transit 169:7
transition 41:11
 103:3 105:9
transitioning 151:3
transmit 136:13
transmittal 198:11
transnational 29:1
transparency 135:1

transparent 213:11
transportation 1:18
 3:6,8 15:10,18
 20:13 24:1 29:20
 29:22 30:5,7,12
 42:22 44:17 47:15
 47:17 52:9 53:2
 122:18
transporting 27:14
traveling 179:1
traversing 179:4
tread 173:14
trend 53:11,18
tried 148:6
trip 179:19,20
trips 178:16,17,20
 179:5,6
troops 29:13
truck 52:22
truckloads 52:14
 52:15
true 173:21
truly 12:20 31:16
 40:12
trust 113:10
truth 113:13
try 29:20 53:14 54:4
 58:2 71:3,10
 73:10 76:3 123:5
 129:21 152:19
 200:21 201:4
 211:14 213:18
 230:8
trying 24:3 53:17
 54:7 56:6 60:10
 72:5 76:5 88:7
 89:17 94:7 103:19
 104:9,12 105:2
 114:8 116:6
 128:12 150:1
 199:13 209:19
 210:9 211:10,21
 212:7 224:17
TSAC 1:4 5:6 6:19
 7:6 9:10,18 10:12
 11:6 14:6,11,20
 18:21 19:1,13
 20:19,22 40:11
 42:4 44:9,11
 49:20 50:15 57:3
 57:10 58:16 59:4
 61:4 64:21,22
 68:5 69:12 75:7
 114:1,22 121:20
 124:16 129:10
 130:8,13 134:7
 137:5 140:19
 145:3 149:9
 150:12 152:1
 157:18 160:7,11
 161:3 168:5
 179:15 182:21
 183:21,22 189:21
 191:20 192:2
 196:11 202:15
 204:6 206:17,18
 209:16 210:9,13
 217:15 221:5,10
 221:21 223:10
 224:1,16,17 225:2
 225:17 227:15
 229:5,7 230:14
 232:18 233:2
TSAC's 135:20
TSMS 51:17 195:10
 195:16,18 196:1
 196:15 201:20
 205:21,22 211:2
Tuesdays 56:2
tug 5:11 8:22 14:18
 15:2,6 16:14 23:5
 32:16 33:13 39:13
 40:9 59:20 66:17
 67:5 174:21 228:7
 228:10
tugboat 38:20
tugs 16:19 23:16
 26:12 38:15 39:2
 226:18,18 227:2
 227:18,22
turn 67:8 73:6
 101:21 119:5,15
 167:2 193:9 215:8
 215:13 231:9
turned 102:17
 135:15

turning 12:14
turns 191:5
tweaks 114:1
Twelve 39:20 182:9
 182:10
TWIC 180:21
 190:22
twice 56:2
two 18:1 24:5,18
 25:19 38:21 43:6
 49:10 51:9 60:9
 65:21 70:7,10,21
 80:3 82:16 90:20
 93:10,13 94:21
 95:14 100:1
 105:17 107:19
 112:2 122:9
 143:15 145:3,8
 150:1 158:4 159:1
 159:10,11 160:11
 163:5 180:8 181:9
 181:12 184:4
 202:1,19,19,21
 203:14 219:17
 221:21 222:7,10
two-page 19:9
two-pronged 156:4
 166:16,17
Twomey 4:4 46:12
 46:12
type 43:7 64:22
 126:22 164:1
 165:18 180:15
types 18:16 178:1
 188:6
typically 118:9
 211:11,16

U

U.S 1:18 23:9 26:20
 27:1,7,13,20 28:4
 28:9,14,15 29:5
 29:11,16 32:8
 33:4 44:19 45:1
 70:8 75:4 82:13
 88:1 126:6
Uber 219:9
ultimate 68:4

ultimately 42:15
umbrella 213:1
unbelievable 192:7
unclear 59:17
under-inspected
 190:1
underneath 144:1
understand 24:2
 130:11,16 157:4
 165:9 172:12,16
 173:13 174:10,21
 175:8 176:12,21
 177:4 197:6 201:5
 224:18
understanding
 164:10 169:5
 171:9 175:20
 176:16 222:22
 228:14
understood 134:4
 190:12 205:12
undertaken 167:16
undertaking 33:20
underwater 91:4
underway 68:1
unfortunately
 148:9 181:19
 209:11,21
uniform 188:11
uninterrupted 22:3
 214:3
unique 51:8
unit 158:4
United 1:1 26:12
 109:8 159:10
 188:12
units 122:2 126:18
 126:19 158:7
unlicensed 190:21
unlimited 158:18
 176:6,8,9
unprecedented
 33:21
unregulated 36:9
unusual 67:15
unwarranted
 224:13
up-to-date 77:19

update 132:5
 195:13 220:21
updated 5:11 66:16
 67:4 82:9 104:17
 113:6 140:12,15
updates 76:20
 132:14,15 141:8
upgrade 176:11
uploaded 148:4
Upper 3:19 46:6
 62:3
upriver 100:1
upwards 39:9 50:7
 54:21
urge 170:17 171:7
urgency 82:10
urgent 63:11
USCG 1:1 3:2,3,5
 3:10,11,12,13,14
 3:16,16 4:3,4,4
 5:8 49:14
use 51:18 57:3 76:4
 77:4,11,11 78:12
 79:15 89:22 90:1
 92:4 95:8 97:21
 98:9,14 99:14
 102:20 105:15
 112:9,10 113:5,14
 120:1 125:6
 126:15 130:14
 131:5,14 161:11
 193:4,5 205:9
 223:11 224:10
user 109:2 113:6
usually 135:19
 169:21 204:14
 207:9 211:16
 216:21
utilize 10:8
utilized 227:2

V

Valley 93:4
valuable 11:11
 43:19 135:1
 222:19
value 21:15 106:16
 162:11 210:5
 225:13 227:7
 228:15
values 213:2
variables 159:2
variety 84:16 158:5
various 158:17
 227:17,20,21
vast 32:10
VDR 123:15 124:12
vehemently 109:7
vehicle 63:13
vein 60:20
ventilation 203:10
verbiage 154:4
 156:6 216:4
 224:12
verge 123:18
Verne 3:2 22:6
 44:13 59:14
versa 165:21
versatile 30:11
version 83:3
versus 25:4 81:13
 101:12 120:8
 160:13
vessel 2:16 21:20
 35:5 36:22 39:17
 41:12 44:20 46:21
 51:12 52:7,20
 59:19,20,21,21
 60:1,3,6,14 62:18
 93:13 94:16
 123:12 150:6
 159:8 167:11
 168:7 175:1,2,4,5
 175:7 177:10,11
 178:8,13,15
 180:18 190:13
 203:8,9,18,19
 213:12
vessel's 117:16
vessels 2:8,10,12
 2:14 5:14,20 6:11
 6:12 27:8 28:2
 32:9 37:3 46:13
 49:9 51:3,6,7 52:3
 54:1,2 57:17,19
 57:22 58:2 72:3

72:14 76:2,6
 90:19 93:21 98:18
 98:20 99:6,7,7,12
 112:14 126:6
 146:13 158:5
 174:9 178:2
 183:16,19 185:8
 185:13 187:19
 188:6 189:20
 190:1,16 196:1,2
 199:2,4,8,9
 204:14 205:7
 211:1 214:13
vetted 9:4 56:10
vetting 76:10 207:7
 215:5 216:2,14
vibrant 32:3 37:22
vice 2:3 14:10,17
 14:20 15:5 20:21
 116:5 117:20
 119:20 120:16
 140:12 165:21
 215:21 218:15
vice-chair 220:7
 232:9
Vietnam 29:11
view 83:6 94:8
 131:16 228:12
viewed 56:10
views 114:13
violation 194:8
vision 18:7 130:4
 180:12
visit 11:8
vital 18:14 28:20
vitality 29:15 42:15
vitality 20:22
Vitt 2:7 14:21,22
 15:1 115:2,3
 151:21,22,22
 152:3 153:7,15,19
 156:4,8,12 157:4
 157:14 183:13,20
 183:21 191:19,21
 193:20 197:3,5,7
 198:8,9,16,19
 204:4,5,6,9,18
 205:12 220:5

223:6,7,10 224:4
229:3,4,5,10,14
229:20 230:1
233:7

voice 210:14

void 88:1

Volume 184:9

voluntary 38:11

volunteer 20:20

215:15 217:16,18
217:21

volunteering 7:17

220:3 224:18

volunteers 217:12

217:19,19 219:12
219:17,22

vote 65:13 135:22

141:19 197:21
215:17 218:21
220:6

voted 232:19 233:4

voyage 101:3,5,12

101:13,19 102:6
102:13 115:4,7,21
119:9 122:11,11
122:22 131:6,10
131:13 164:2

Voyager 88:20

voyages 86:8

vulnerabilities

28:21

W

wait 36:5,6 58:8

68:22 134:11
187:5 188:19
192:20

waiting 21:5 69:2

88:10 125:3

waived 76:7 98:21

waiver 99:4 106:14

wake 60:10

Wal-Mart 92:7 93:1

walk 112:13 113:11

walking 214:13

wall 92:1 134:2

Walter 4:4 45:15,15

Walters 72:16

want 9:11 11:7,7

19:22 20:12,13,18
20:19 21:8 22:5
23:22 25:7 34:12
42:1,3 54:8,10,13
54:16 55:14 57:19
57:22 58:3,20
69:9 71:4 72:15
72:17 81:6 91:3
92:7 97:15 98:9
99:11 102:22
105:14 108:2

110:6 113:18

118:10,14 120:15

123:4,13 127:16

128:8 131:15

135:10 151:19,19

155:16 161:6

162:10 165:16

169:6 170:9

172:11 179:21

180:5 199:17

201:3 209:12,22

210:1,5 225:12

227:22

wanted 46:15 87:7

94:2 95:17 97:17

128:7,21 160:11

193:16 204:21

210:18 213:11

214:6

wants 23:15 69:9

109:3 217:21

War 29:11

Warder 191:5

Washington 1:20

12:6 20:10 68:14

wasn't 55:4 61:17

77:19 79:3 87:6

88:9 141:4 173:20

water 26:14 31:13

38:16 91:2,3,3,17

113:7 163:8

165:15 167:7

171:10 181:2

185:21 212:13

waterborne 33:17

37:20

waterfront 49:9

waters 108:7

109:11 120:8

121:2 162:22

164:7,16,16,21

165:14 167:15

168:1 186:1,5

187:3 226:19

watertight 61:8

waterway 120:22

162:6

waterways 32:12

34:2 35:10 39:10

40:4 42:13 47:20

161:1,17,21,22

162:3 164:21

184:15

way 26:8 30:22

32:22 40:4 44:7

57:12 64:4 80:10

80:22 81:9 82:1

86:4 92:22 97:2

104:13 111:18

113:18,20 123:11

123:16 124:14

132:1 135:15

148:8 152:11

158:9 159:4

171:16,17 172:22

180:15 181:20

192:12,15,19

194:18 211:3,11

231:20

ways 25:3 90:20

157:9

we'll 9:2 10:10

11:16 14:4 40:15

43:21 44:7 48:9

51:7 63:16,18

64:7 66:1,7,12,22

69:13 71:9,17

73:6 81:5 105:19

106:4 107:17

113:19 124:17

136:8 140:10

141:10,19 142:10

149:8 152:15

153:5,12 168:1,15

170:4 196:14,18

200:12 201:11

202:6 207:20

214:17 218:8

220:21 221:8,14

221:16 226:13

229:18 230:15,22

231:11

we're 8:17 10:12,13

13:4 19:3 21:22

27:19 29:14,18,21

30:9,13 33:2

35:15 44:1 48:8

48:16 49:11 51:2

53:13,17 54:3,4

54:18,19,20 55:15

56:3,6,7 57:6,12

62:1,7,15,16 66:5

66:7,20 68:14

69:3,4 70:21 71:2

72:4 73:5,14,22

76:13 80:2 81:9

81:12 83:5,7 84:1

85:9 86:11,22

87:8 89:5 93:14

95:18 96:16,18

102:20 103:17

105:2,7 106:11

107:20 110:17,19

112:1 115:15

117:11 118:6

119:16 120:1

124:8,13 125:16

128:21 130:5

134:10 137:3

142:13,20 144:15

144:15 145:20,21

146:11,13 148:16

148:16 150:7

153:11 156:22

159:3,4 165:14

167:4,9 181:7,8

181:10,14,22

182:13,14,14,16

190:8 192:7 193:5

195:16 196:5,11

200:7,11,19 204:5

209:3,4,7 210:17

211:4,7,9 212:7
 213:12 214:10,11
 214:12,13,18
 215:4 222:1 224:7
 224:21 225:10
 228:14 232:2
 233:18
we've 8:2 21:4,5,13
 21:15 30:1,4,8
 50:3,10 54:2 56:5
 56:8 60:17 66:6
 67:13 69:2,7
 70:15 82:5,6
 83:16 84:3,7
 90:11,12 97:8,9
 97:18 100:21
 105:16,19 106:8
 108:8,22 110:11
 112:12,13,20
 125:3 136:10,11
 145:19 146:4
 148:6 149:14
 159:19 173:18
 175:9 180:6
 185:12 187:15
 195:17 196:4
 200:5 209:5 216:8
 221:11 222:18
weather 12:19
 39:10
web 189:16
website 55:2 56:14
 63:12 64:21 77:15
 77:20 128:20
websites 149:11
week 18:17 20:17
 21:9 25:19 35:14
 56:2 91:13 104:16
 107:10 124:4
 126:3 129:7
 132:10 193:16
 196:11 211:5
 214:15
weekend 24:17
weekly 82:9
weeks 68:15
 107:19
weight 201:1

225:17
welcome 5:2 7:3,6
 7:9 11:13 17:22
 18:3 22:17 24:1
 25:8 43:1 138:1
welcoming 23:2
 59:2
well-paying 32:4
Wells 4:5 47:10,10
 59:14,15 149:15
went 50:2 66:14,14
 77:15 79:7 83:13
 83:14 95:3 104:16
 120:9 128:17,20
 137:18,18 147:15
 147:16 154:1
 182:11 190:2
 214:21,21
Wepfer 3:14 46:8
weren't 12:16 95:16
 193:12
Wes 16:17
West 163:22
Wester 160:17
Western 17:1 62:14
 80:18 81:16 98:4
 103:22 120:10,11
 120:20 121:1
 152:6,9 160:21,22
 161:9,15 162:1,5
 162:12 167:19
 190:17 199:20
 204:11
whack 92:4 118:13
Whatever's 203:9
wheelhouse 88:5
 103:8 110:5 111:3
 111:10 113:11
 131:15,16 170:10
 170:14 171:1
 205:19
wheelhouses
 100:20 110:22
 111:5 112:4
 130:19
whichever 158:13
whisper 209:9
who've 179:16

wholeheartedly
 97:7
wide 84:15
widely 77:11 113:5
widest 13:6
Wilcox 2:13 16:6,7
 16:7 18:2
WILLIAM 3:4,5
willing 193:19
Wilmington 3:6
 47:8,9
wind 152:7,8
winding 39:10
window 87:20
windows 111:15
wise 124:9 129:1
 160:19
wish 12:1,13
 134:16,17 138:5
 153:16 217:12
 218:14 219:12
 222:3 230:4,8
wishes 183:5
 215:16 217:5,9
Wisneski 4:5 47:6
 47:6
wit 25:15
withstand 86:9
wondering 61:13
 95:5 134:11
word 30:1
wording 156:10
words 78:6 225:7
 231:20
work 7:7,13,18
 10:21 12:14,21,22
 18:8 19:1,8 20:20
 20:20 41:1,3 42:8
 42:11 67:17 68:9
 68:16,17 69:4,7
 69:22 71:8,11
 72:22 73:2 105:11
 105:19 108:1
 110:7 114:17
 127:5 128:10
 138:17 145:22
 149:18 150:1
 155:7,9 159:16

189:21 192:3
 195:18 196:5,12
 198:20 200:7,12
 200:16 202:8
 207:20 208:7
 209:14 210:4,10
 210:20 211:7
 214:9 217:10
 219:7 221:2 225:7
 231:13
workboats 130:22
worked 13:3 34:8,8
 34:9 79:8 143:15
 143:18,20 144:13
working 8:21 29:19
 51:21 54:18 59:5
 68:2,9,12 69:3
 71:13 105:11,13
 134:21 141:20
 143:9 144:5,19,21
 145:20,20,21,22
 146:12,14 148:16
 152:22 153:6
 159:4 178:6
 180:11 181:7,14
 196:6 200:5
 207:16 208:15
 210:18 231:16
works 37:16 55:13
 74:21 75:2 84:4
 85:1 88:17 92:10
 106:22 109:5
 145:14 172:13
 194:18
world 29:8 40:13
 109:7
worry 127:21
worth 78:1 95:21
worthwhile 131:2
 230:3
would've 76:20
wouldn't 104:15
 126:9 204:22
 232:22
wound 141:5
wrap 69:4 79:10
wrapped 71:18
wrapping 64:10

wrench 125:20
wringer 20:16
write 102:22 192:15
writer 25:13
writes 25:21
writing 145:13
written 14:5 82:2
 86:5
wrong 188:20,20
wrote 151:10

X

X 155:21,22
XYZ 188:22

Y

Y 155:21,22
year 19:13,14 20:11
 27:10 69:5 75:8
 95:21 116:17
 169:21 173:10
 174:17
years 13:3 27:6,13
 33:7,20 34:17
 36:10,15,19 39:20
 52:3 53:9,10
 74:17,17,17,17
 82:2 84:3 90:1,14
 97:19,22 98:8,17
 103:10 106:8,10
 112:20 121:8
 122:13 125:4
 163:18 175:17
 178:21 179:2,3,7
 179:20 182:6,8,11
 189:5 212:3 229:6
yesterday 7:11 9:5
 10:19 12:11 18:4
 30:16 31:3 43:19
 43:21 44:2 69:16
 70:15 72:7 73:3,8
 114:21 120:7
 130:18 134:21
 141:1,5 181:7
 184:18,20 200:3
 216:1 221:18
 222:11
yesterday's 12:15

231:10
yield 58:2
York 50:3
young 25:19
youngest 26:5

Z

Z 3:8 23:13,16
 47:21 91:13
 126:18 155:21,22
zero 33:14,15,16
ZF 126:18

0

01-16 79:14 80:5
 116:19
02-14 169:7
03-16 146:7 150:13
 166:17 169:12

1

1 5:12 61:14 63:12
 64:9 66:18 67:6
 68:6,7 126:12
 143:6 170:11
 183:14 184:10
 191:22 197:3,18
 216:13
1,000 32:11 50:9
1:00 10:11
1:04 137:19
10 112:20
10-05 103:22
10-232 160:4
10:00 66:9,10,12
10:02 66:15
100 26:13 27:9 50:8
 185:8
106 27:8
109 77:21 78:8,14
 78:22 80:9 83:8
 86:20 96:10
 107:12,13 115:8
 127:8
10900.6 78:4
11 5:4
11-217 159:22
11:23 137:18

11:30 10:7,11
11th 50:18
12 33:20 36:10,18
 38:22 62:19 63:4
 63:4,8 84:3 106:8
 112:20 128:3
 164:17 170:1
 171:22 176:1,1,4
 176:9 178:16,20
12-01 163:17 166:5
12,000 51:5
120 27:9
1200 1:19
13 5:5
1300 56:3 137:12
13th 185:17
14 5:6 23:1
140 52:14
142 5:15
15 119:3 175:17
 182:6
15-02 5:12 66:19
 67:7
15-03 5:14 72:3,14
 75:7 117:8 128:14
15-minute 209:4
15.535 178:9
155 52:22
15th 68:15
16 52:17
16-01 5:21 183:16
 183:19 197:20
 198:14
16-02 6:13 199:4,10
 199:15
16-03 6:17 215:12
 215:20 218:19
 220:4,8
164 99:2 100:20
164.70 99:5
164.72 99:9
16th 68:15
18 169:17 170:15
 171:19
183 5:18
1936 27:18
1978 187:21
199 6:8

1998 189:21
1999 143:11
1st 27:10

2

2 27:21 28:1 184:11
 194:6
2-81 5:12 66:18
 67:6 68:5
2:35 214:21
2:45 209:6
2:50 214:22
20 39:5 53:20,22
 54:1 57:18,21
 179:7
20-year-old 82:3
20,000 104:11
 112:14
200 50:8
2001 151:11
2003 35:12
2004 88:2 204:2
2004-2005 53:5
2005 53:7
2007 81:19 88:4,5
 125:3
2012 22:22
2014 22:20 81:22
 150:21 151:1,4
 168:22 169:11
2015 75:15
2016 1:8,13 53:20
 77:1,7 143:6
2017 53:22 57:18
 57:21 232:11
2018 54:1 232:9
205 61:5
211 159:22
215 6:15
21st 34:13
22 5:7 52:21
221 6:19
233 6:21
23rd 184:16
24 146:5
24/7 39:11
25 56:17 164:19
250 54:22 56:5,18

25th 22:20
26 38:19
27 1:13 27:11 203:5
 204:3 206:8

3

3 28:9 61:11,13
 183:1 185:18
 216:22 226:6
3,000 93:17 95:21
 191:7
3:13 233:22
30 39:9 53:6 148:19
 179:2
30-minute 10:16
300 93:18
30th 200:15 232:11
31 200:4
325 50:6
33 99:2,5 100:20

4

4 28:9 189:9 216:22
4,000 78:1 188:14
4,500 191:8
4.85 30:18
40 56:6,7,8 148:19
 212:3
40-45 133:7
40,000 28:2
46 5:19 52:17
 183:15,17 184:17
 203:5 204:3
46-136.100 120:11
46-4.05 119:3
49 5:8
4th 12:18 114:5,6
 129:14 140:6
 141:8

5

5 187:15
5,000 191:8
50 51:4,6 158:20
 173:9,12,16,17
 176:5
500 93:17
540,000 28:10

5PC 143:17
5PS 143:17 144:1

6

6 5:2,3
6,000 51:2 54:2
 112:14
6,700 26:12
64 5:9
66 5:11 87:15

7

70 52:14
72 5:13 100:19
78 27:11 28:3 50:21

8

8:30 1:20
8:37 7:2
80 77:17
80s 162:18
820-page 34:5

9

9:00 8:13
9:38 66:14
90-95 173:22
92 96:17 116:16
 117:14 128:18

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Towing Safety Advisory Committee
Fall 2016 Meeting

Before: United States Coast Guard

Date: 10-27-16

Place: Washington, DC

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



Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701