

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of: *

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FIRE ONBOARD *SPIRIT OF NORFOLK* *

NEAR NORFOLK NAVAL STATION, *

Accident No.: DCA22FM022

VIRGINIA ON JUNE 7, 2022 *

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Interview of: JACK KENNETH EDGAR

Donjon SMIT OPA-90 Salvage

Virginia Beach, Virginia

APPEARANCES:

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JACK KENNETH EDGAR, Senior Salvage Manager/Engineer
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I N T E R V I E W

(11:05 a.m.)

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2
3 CDR WADDINGTON: The time is 11:05. The hearing is now in
4 session.

5 MR. ABEL: Commander, before we start with Mr. Edgar, I have
6 one matter I'd like to just bring to the Board's attention if I
7 may, sir?

8 CDR WADDINGTON: And what's the nature of your comment?

9 MR. ABEL: I would -- on behalf of Bay Diesel, we are asking
10 the Board to strike from the record of the proceeding Exhibit 82,
11 the ATF written report. We've had testimony under oath from
12 SA Vaughn, its author, and I would ask the Board to rely on that
13 and not the written report.

14 The testimony that we had yesterday from -- or, actually,
15 Tuesday from Mr. Vaughn confirmed the report is a number of
16 factual errors and false assumptions. Leaving it in the public
17 record, misleads the public. ATF's testimony will still be there
18 and we know the testimony, frankly, was they still don't know how
19 the fire started. Its cause is unknown.

20 And despite what the report says, you know, or infers, ATF
21 can't say that the main diesel engine, for example, had anything
22 to do with the fire. In fact, after all of the evidence that
23 we've heard to-date, there's been absolutely no evidence of any
24 mechanical failure in the port main diesel engine or in any of its
25 components and thus no evidence that my client, Bay Diesel, did

1 anything wrong. Unfortunately, Exhibit 82 improperly suggests
2 otherwise. It's unreliable and --

3 CDR WADDINGTON: Are you testifying or can you make it
4 concise?

5 MR. ABEL: No, sir. I'm explain the reasons --

6 CDR WADDINGTON: Your objection is noted for the record.

7 MR. ABEL: -- it is unreliable and unnecessary given the live
8 testimony that we've had from SA Vaughn. It unfairly --

9 CDR WADDINGTON: Mr. Abel (ph.) --

10 MR. ABEL: It unfairly prejudices my client, Bay Diesel --

11 CDR WADDINGTON: Mr. Abel --

12 MR. ABEL: -- and so I ask that it be stricken from the
13 record and the testimony --

14 CDR WADDINGTON: Mr. Abel --

15 MR. ABEL: -- be relied upon --

16 CDR WADDINGTON: Mr. Abel --

17 MR. ABEL: Yes, sir.

18 CDR WADDINGTON: Your objection is noted and -- for the
19 record and will be considered when analyzing the weight and
20 credibility of the evidence.

21 MR. ABEL: Yes, sir. I ask that it be struck from the record
22 and it not be considered at all, and certainly not available to
23 the public because of its misleading nature, sir.

24 CDR WADDINGTON: As I previously stated, your objection is
25 noted for the record. We will move on now. Thank you.

1 MR. ABEL: Thank you, Commander.

2 CDR WADDINGTON: At this time, I call Mr. Ken Edgar. *Spirit*
3 *of Norfolk* Salvage Representative LT [REDACTED] will administer your
4 oath and ask you some preliminary questions. Thank you.

5 LCDR [REDACTED] Mr. Edgar, please stand and raise your right
6 hand. A false statement given to an agency of the United States
7 is punishable by fine and or imprisonment under 18 U.S.C. 1001.
8 Knowing this, do you solemnly swear that the testimony you're
9 about to give will be the truth, the whole truth, and nothing but
10 the truth, so help you God?

11 MR. EDGAR: So help me God, sir.

12 LCDR [REDACTED] Please be seated. Please state your full name
13 and spell your last name.

14 MR. EDGAR: Jack Kenneth Edgar, E-d-g-a-r.

15 LCDR [REDACTED] Please identify counsel or representative
16 present and have them state and spell their last name as well as
17 your firm or company relationship.

18 MR. SPILLER: John Spiller, Spiller, Clark Hill in Houston on
19 behalf of Mr. Edgar and Donjon-SMIT.

20 INTERVIEW OF JACK KENNETH EDGAR

21 BY LCDR [REDACTED]

22 Q. Please tell us what is your current employment and position?

23 A. I am self-employed. I am a senior salvage master and salvage
24 engineer.

25 Q. What are your general responsibilities in that job?

1 A. As such, I respond to casualties of all sorts in the nature
2 of fires, groundings, collisions. Also do work for -- in the way
3 of heavy lifts, moorings, and other like applications in the
4 marine industry.

5 Q. Can you very briefly tell us your relevant work history?

6 A. I joined the Navy in 1965. I attended the United States
7 Naval Academy, received a Bachelor of Science degree in naval
8 architecture and marine engineering. Had a couple tours of duty,
9 attended as an engineer. Attended graduate school, received a
10 master's degree in naval -- in marine engineering and a master's
11 degree in nuclear engineering from MIT.

12 Continued on in doing several tours of duty as in salvage and
13 diving. I first attended diving school, I think, in 1973. I left
14 active duty in 1978, entered the commercial sector in 1978, and
15 worked for a small company here in the harbor called American
16 Marine Salvage. We did light salvage and ship husbandry,
17 including the ship husbandry for El Paso Marine. A portion of our
18 company was acquired by Trake War Marine (ph.) and I went to work
19 for Trake War Marine under an employment contract for a period of
20 approximately two years managing the OCIMF facility for NAVFAC and
21 installing the moorings over a year's period in Diego Garcia.

22 Upon return from Diego Garcia, in, I want to say it was,
23 1980/'81, a couple of us decided to go out on our own and we've
24 been on our own ever since. At which time, my first job with
25 Donjon-SMIT occurred in December of 1981 and I've been working for

1 them ever since. My first job for SMIT was sometime in the early
2 2000s/late 1990s. Been working for them ever since and I've been
3 working for Donjon-SMIT since the joint venture stood up in 2004.

4 Q. Do you hold any professional licenses or certificates related
5 to your position?

6 A. I am an EITF PE licensure in the Commonwealth of Virginia. I
7 am in my certificate in several items. I'm a NREMT paramedic
8 certified at both ALS and hazmat. I'm a firefighter II. Let's
9 see. I've attended Incident Command Instruction over a series of
10 course -- years to the level of 400. I'm -- both in HAZWOPER and
11 in hazmat technician and supervisor. And then there's probably a
12 couple other items in there, Chief. Or, excuse me, did I promote
13 you?

14 Q. Thank you. LCDR [REDACTED] will now have follow-up questions for
15 you.

16 BY LCDR [REDACTED]

17 Q. Good morning, Mr. Edgar. Thank you for being here.

18 A. Good morning, ma'am.

19 Q. And as we ask you questions today, if you need to break at
20 any time, just let us -- all of my questions are related to the
21 period up to June 7th, 2022, unless I specifically ask you about a
22 later date. There's an exhibit binder in front of you. The
23 recorder, LT [REDACTED] will also put up exhibits on the displays
24 throughout the room for you as well. And to just -- the marine
25 industry, I know you're aware that they use many acronyms, so

1 please try to refrain from using acronyms. And if you need to,
2 please just describe for us what they are. We're going to break
3 your testimony into two main parts. The first one being your role
4 in general as the salvage expert and then we'll talk about your
5 activities related to the *Spirit of Norfolk*.

6 Mr. Edgar, can you talk to us about how many maritime fire
7 casualties that you have been a part of or in charge of as a
8 salver engineer, or salve master? An estimate's fine as well,
9 too.

10 A. Over the years, I've fought probably in the neighborhood of
11 35 to 40 major marine salvage fires and several lesser fires.

12 Q. For the salvage operations and the fires you've mentioned,
13 have there ever been any similar to the small passenger vessel,
14 *Spirit of Norfolk*?

15 A. From the period of the late '80s through early '90s, I worked
16 for Boots & Coots/Williams Firefighting and then Williams Fire &
17 Environmental. Participated in taught classes at their fire
18 academies and supported them in multiple marine fires and
19 non-marine fires. We've fought fires that included bulkers, car
20 carriers, colliers, tankers, tank barges, fish processing vessels,
21 but never a cruise ship or -- and this is probably the smallest of
22 the lot.

23 Q. Can you talk about the instances where you have been working
24 under the Incident Command System or the Unified Command?

25 A. Virtually, every operation we do in the United States and its

1 territories we do underneath an incident or unified command, and
2 that's into the hundreds. We operate globally, if you wish, and
3 including all the United States and its territories.

4 Q. In a salvage situation where fire and stability are affected,
5 what tools do you use to determine if there is a danger of loss of
6 stability leading to the possible capsizing of a vessel?

7 A. There's multiple. Some of it's staged. First is visual when
8 you're first on-scene and then you can look at drafts, free
9 boards, period of roll, reaction to the vessel to external
10 stimulation. And then you can, obviously, do detailed
11 calculations, which would, in our case now, include computer
12 modelization.

13 Q. Is there a rule of thumb or simple means of determining
14 dangerous stability for a vessel like the *Spirit of Norfolk*?

15 A. Yes.

16 Q. We're going to shift to the events of June 7th, 2022. Can
17 you, for us in your own words, describe what you did, what you
18 saw, who you interacted with after receiving word -- right around
19 the time you received word that you were being activated to
20 respond to the *Spirit of Norfolk* on June 7th, 2022? And you can
21 take a second to collect your thoughts.

22 A. I had returned to my residence from an operation in Gulf
23 Court (ph.) either the week before that weekend. The day of the
24 fire, I was spending most of the afternoon outside and in my shop,
25 taking care of some things locally that needed to be taken care of

1 there. I received both an email and a phone call approximately, I
2 want to say, 1537, but I'd have to go back and look at my notes
3 for my testimony. That call came in from Mr. Tim Williamson, who
4 is the vice president of Donjon Marine. He's the vice president
5 of Salvage for Donjon Marine. And you said that the *Spirit of*
6 *Norfolk* was on fire.

7 I went into the office, pulled up WAVY TV. They were
8 reporting on it. I pulled up the link to WAVY TV and I sent that
9 to Donjon-SMIT headquarters and several of the Donjon-SMIT and
10 Donjon personnel. And about the time I hit send, Mr. Guillermo
11 Hernandez, the general manager of Donjon-SMIT, called me up and
12 said I should proceed to Pier 4 off of naval. I grabbed my jump
13 bag, my computer, got in the truck and started driving.

14 En route, I made several phone calls. Quite a few back to
15 Mr. Hernandez knowing that he keeps a very detailed log in events
16 of this case, that, you know, hey, I'm on the road. Also, here's
17 my -- what I intend to do. We were being tasked solely to dewater
18 the vessel after the fire event, that I was going to reach out to
19 Chesapeake Bay Diving, arrange for personnel, pumps, and, you
20 know, might as well get the dive boat set and headed that way.
21 From experience, we know we might need it eventually.

22 Also, while enroute, I asked him to source a tank barge, so
23 that we could put the -- pump the fluid to. And as we proceeded
24 up the road, I was getting calls back from Chesapeake Bay Diving,
25 confirming that they were mobilizing their pumps. I tried to

1 reach the principal at Chesapeake Bay Diving and he was busy
2 cutting a line out of one of the propellers of one of the vessels
3 that had responded to the *Spirit of Norfolk*, so he was well aware
4 of it and he was going to -- when he finished that, he was going
5 to move that dive asset over to Pier 4.

6 En route, spoke a couple of times to Mr. Williamson. He was
7 working on mobilization of assets out of our facility in New
8 Jersey and he expanded that to include some additional summer
9 firefighting equipment because we realized we'd probably have to
10 make entry to get the pumps in and whatnot, and the environment
11 was not going to be probably suitable for, you know, entering
12 without being in SCBAs or other breathing apparatus.

13 The feedback from Mr. Hernandez said that he was having
14 trouble sourcing a barge. I recommended he try Vane Brothers,
15 which he had not yet done, and he was in hot pursuit of one from
16 CNM (ph.), which is I think Earl Edwards' (ph.) is firm. And I
17 also asked him what the status of the OSRO was. He indicated that
18 he was going to check with the owner and I asked him who the RP
19 was going to be and he was going to feedback information to me on
20 that.

21 Subsequent before I arrived at Pier 4, Mr. Hernandez
22 was -- got back to me and indicated that Ms. Price was going to be
23 the RP, representative. I'd find her out on the dock, that she
24 was someplace in the vicinity of the *Spirit of Norfolk*. I arrived
25 at the head of the dock about 1715. I could see when I pulled

1 into the parking space -- I can see the ship. I could see that it
2 had a little bit of port heel. The smoke was more intense than
3 when I had seen it on the WAVY video and it was a little darker in
4 color. I proceeded to walk down the pier and RRSA, Mr. Ken
5 Hendricks, was just then arriving at the head of the pier, so we
6 walked down the pier together.

7 Part of the way down the pier, we ran into one of the Norfolk
8 City fire officers. He was recognizable because he was wearing a
9 white helmet. Spoke briefly to him. He kind of gave us, yes, the
10 fire had taken a little bit of a turn. They had made an entry and
11 the door between the galley and the engine room had been opened,
12 and the vessel -- that's why we're seeing some -- perhaps why we
13 were seeing some heel on the vessel.

14 I tasked Mr. Hendricks, who was a marine surveyor, just
15 to -- because I was going to try to find somebody from owners
16 and -- to meet me wherever the command post was. So, I continued
17 on down the pier and, on the north side of the pier, I identified
18 him as Captain Ryan at the time because he had his pin on, but the
19 *Spirit of Norfolk's* master was sitting on the north side of the
20 pier. I spent a few minutes, approximately 15 minutes, talking to
21 him.

22 He explained kind of the nature of the casualty initially,
23 that it was the engine room. When I had seen the smoke coming out
24 on the video, I thought it might have been the galley that was on
25 fire because the vents are kind of close together there. He

1 corrected me and it was duly noted. I asked him about some
2 information about his liquid load and he was -- he really wasn't
3 in a condition at that point, in my medical opinion, to be pushed
4 on a lot of questions. I said, fine, I got some other things I
5 need to do but, when you get a chance, get back to me and so we
6 can talk liquid load. He acknowledged that.

7 And then I crossed the pier headed towards the *Spirit of*
8 *Norfolk* and I saw the *Spirit of Norfolk* for a few minutes. Got an
9 idea of free boards. Looked at the period of roll. I did not
10 time it at that point, but the vessel was not lolling. She had a
11 reasonably long period of roll.

12 I went over to the identifiable CP, command post, at that
13 time and that turned out to be the naval base firefighter's CP,
14 where they were having a discussion. I kind of peeked over
15 people's shoulders. One of the fire officers saw me and I could
16 identify them that they were naval base firefighters because they
17 had -- were wearing white polo shirts with that written blazingly
18 along -- on their chest. They were wearing vests and I did not
19 know at that time who was the incident commander, but he quickly
20 identified himself as the chief and he was in the process of
21 discussing a second attempt. I never initiated that discussion.
22 I just entered into it and with -- I'm here from -- we're from the
23 salver, you know, what can I do to help you? And that
24 was -- began my involvement.

25 I did not have much to offer up at the time. I offered to

1 arrange for the divers to bring over their boat and act as a
2 safety boat, and they even have people who could do -- offer to be
3 used as rescue swimmers if he felt that necessary. I did carry a
4 marine radio. He did not have communications directly with the
5 pilots and I said I'd be more than happy to interface if you want
6 me to. And I will be monitoring drafts, free boards, and I'm
7 going to be measuring the period of roll of the vessel.

8 And he went down in meticulous detail, which I recorded in my
9 notes, what his general plan was. Put two teams on board: one to
10 carry a 2.5 inch line with a cellar nozzle on it with the intent
11 of putting it into the escape trunk. That way they can control
12 the amount of flow from the dock and keep everybody off the
13 vessel. Plus, it would get a great expansion. All right.

14 He explained, you know, what he thought the route was and
15 they had the fire plan laying out there. And at that time, I did
16 not notice any annotations. I reached out with my pencil and put
17 two half circles around the escape trunk, pointed out to him, and
18 he asks, where is it? We're close to the vessel. I said, it's
19 behind that window over there. He talked through his route and
20 agreed that going through the aft door forward and upward to
21 starboard was the shortest route, and a few other details which I
22 have annotated within my notes.

23 At that point in time, Captain Stockwell came up and was
24 hearing the conversation and indicated that that the salvage
25 plan -- or, the firefighting plan, excuse me, it was a

1 firefighting plan, had to be written and that she wanted her staff
2 to review it. I showed her my notebook and she -- no, no, no, I
3 want something more than that, which was fine. And evidently that
4 got her focus on me as opposed to the fire chief from the base.
5 And she started asking me 20 questions and every other word seemed
6 to be stability. I tried to explain that the period of roll was
7 long, that there was over 2.5 ft of free board at that time on the
8 port quarter, that there -- in my opinion, there was not an
9 impending stability problem. But if the fire was going to be
10 extinguished, it needed to be extinguished pretty soon.

11 We broke away from that conversation. I talked to somebody
12 else on the pier and she said she wanted to re-huddle at the
13 command post and get some other people involved. I was still
14 trying to identify Ms. Thompson, but I attended the next meeting,
15 which include CPT Stevens and several other people. All right.
16 Again, the discussion was basically, I'm worried about stability
17 and the safety of the people, which everybody understood, but it
18 was also brought forward that, you know, the fire was not going to
19 get better, that there was perhaps an opportunity to get it down
20 and get it down now. And she's, no, we're not going to do it and
21 we're going to meet again at 2000.

22 In one of those conversations. She indicated that the vessel
23 was already a CTL and I -- which I am sometimes prone to
24 do -- made a snide remark that she -- asked her if she was
25 representing the underwriters, P&I club. And those of you who are

1 married, you know what the look is, and I got the look. At which
2 time I said, well, fine, then I go over and I will see you with
3 the 2000 meeting, and I needed to follow up on the barge and
4 mobilization and find Ms. Thompson. And I also wanted to go over
5 and sit down and measure the period of the roll of the vessel.

6 I accomplished most of that before the 2000 meeting, which
7 was actually held at 2020, but I never found Ms. Thompson until we
8 entered the meeting. She was in the meeting with Captain Ryan.
9 And at that point in time, the meeting occurred. I silenced
10 my -- oh, I did do one other thing.

11 At 1831, I put in a phone call to the SERT duty officer. She
12 did not answer. I left her a message to call back. And SERT is
13 the Salvage Emergency Response Team and that's what the -- works
14 out of the Coast Guard headquarters, the Marine Safety Office, and
15 is comprised of young junior officers, most of them who are fresh
16 out of graduate school. They're bright, they're great technicians
17 in their own right, and it's headed by Andy Lawrence. I did not
18 call Andy. I have his home phone number and cell number, but I
19 did not call him. I wanted to maintain the chain of command and
20 go through the duty officer.

21 At the 20:00 meeting, I had muted my phone, listened to the
22 discussion. We're going to stand up the unified command.
23 Questions about going back and making extinguishments were by that
24 by that time becoming moot because the command post, which had
25 just opened up, was the Port of Norfolk command post as opposed to

1 the Suburbans that were on the dock earlier. It is outfitted with
2 a FLIR system and we were able to watch the conflagration
3 increase. And by the end of the meeting, the vessel was nearly
4 fully engulfed, and by the time we walked down to the dock, it
5 was fully engulfed.

6 In the meeting, the discussion of stability come -- came back
7 up. I mentioned that I had timed the period of roll and the GM
8 was in excess of four feet, but peoples' focusing seemed to be
9 going elsewhere. And at no time while I was on the dock did I
10 represent myself as a representative of the responsible party. I
11 did not state that and I certainly did not intend to imply it if I
12 did. I represented myself as a salvage representative from
13 Donjon-SMIT.

14 Q. Thank you. I have follow-up questions. Just a few things.
15 Do you mind putting your mic down just a little bit more? Thank
16 you. And you had mentioned two acronyms during that. You said
17 RSA. Can you explain what RSA --

18 A. Response situation assessor. That's part of the Open 90
19 Response Network. And we have several here in Hampton Roads. We
20 at Donjon-SMIT have several here in Hampton Roads. One of them is
21 Aaron Addison from Chesapeake Bay Diving. But as I indicated
22 earlier, he was busy cutting a line out of a wheel. And
23 Mr. Hernandez mobilized Mr. Hendricks. Mr. Hendricks who'd served
24 us as the RSA in the past on the Dawn Hey (ph.) grounding off the
25 base, so he's a known entity to us and we've worked with him in

1 the past.

2 Q. Sorry. Can you move your mic just a little more closer?

3 We're having a hard time -- thank you. Appreciate it.

4 A. My apologies.

5 Q. And then you mentioned CTL?

6 A. Constructive total loss.

7 Q. Thank you. You had gone into some background information
8 with LT [REDACTED] when he was swearing you in and we talked about
9 your naval architect and your education and background. Can you
10 kind of give us a background into your firefighting background?

11 A. Yes, ma'am. Upon graduation from the Academy, I was sent on
12 board an aircraft carrier as the auxiliaries officer. I was on
13 board for approximately two years. And during that period of
14 time, I also was -- attended firefighting school, damage control
15 school, numerous ref-trays, refresher trainings. All right.

16 And that continued throughout both my active and reserve
17 period of time. Every time I was on board a ship, we ended in
18 ref-tray, or refresher training, of some sort. Throughout my
19 naval career I've been an engineer, primarily an operating
20 engineer, on board vessels for an engineering staff. I did have
21 command of a mobile diving and salvage unit in which time we did
22 firefighting training. I was the Atlantic Fleet salvage officer,
23 in which time we did salvage and firefighting training.

24 Upon entering the commercial sector, in 1981, I provided
25 engineering support and attended and participated in the Williams

1 School, including, like I said, as an instructor and I instructed
2 in things such as boom application rates, fire -- different fire
3 types, fuels, POLs, chemical, grain, coal, whatever. Material
4 strength, strength of materials, you know, impact of fire on
5 those. Vapor air explosions, oxygen start fires, technical
6 aspects.

7 I was mentored by Mr. Les Williams of Williams Firefighting.
8 And when he became of the age where he could no longer be out on
9 the fires, I took his place. And during that period of
10 time -- and these are all small six-to-eight-man teams, everybody
11 fights a fire. And we come back home. In my residence, I live in
12 a very rural area. If we didn't have volunteer firefighters and
13 medics, we wouldn't have. I spent 25 years in the volunteer
14 force.

15 Q. Going back to your testimony, what you just told us, I'll
16 just have some follow-up questions. Can you tell us how does
17 Donjon-SMIT determine who gets activated for events such as the
18 Spirit in Norfolk? How they activate you. How they determine
19 that.

20 A. It's situational and availability. In this case, I
21 wasn't -- Mr. Hernandez reached out to Mr. Addison to be the RSA
22 very quickly. Not to me first and -- I'm about 2.5 hours away.
23 And he quickly called up -- when they said they were going to be
24 wanting de-watering, he called me and says, hey, you can go -- get
25 it going, because he knew I was available. He called

1 Mr. Williamson, or Mr. Williamson was made aware, and
2 Mr. Williamson turned on people from New Jersey. That is our next
3 largest school of assets. We do have assets pre-staged down here
4 with Chesapeake Bay and we do have network assets here in the
5 Hampton Roads area, including foam, pumps, frac tanks, and those
6 are in -- west of Hampton Roads, some of them in Petersburg. But
7 the who gets chosen, like I said, is the nature of the casualty
8 and who happens to be available.

9 Q. Prior to arriving to Pier 4, can you explain if you decided
10 if you needed any additional help at the scene? And why did you
11 request those people or those agencies?

12 A. Having experience with de-watering, even if it's not after a
13 fire, you need pumps. But this being a marine casualty, fire
14 casualty, knew we're going to need some submersible pumps. I knew
15 that the Chesapeake Bay had a couple immediately available. Turns
16 out that the four-inch submersible pump was on the dock before I
17 arrived. The three-inch was staged in Portsmouth, ready to be
18 mobilized over.

19 I was informed of the approximate make-out of the
20 mobilization coming down from New Jersey. And in that group, I
21 think, where six additional Submersible pumps with hoses and power
22 units. All right. I also know that we need to put -- someplace
23 to put water. And given that it was a fire, I knew that the water
24 would be contaminated with both the AFFF, which we now know is a
25 carcinogenic; fuel; and the products of combustion. The fire is

1 going to produce its own waste streams. Yeah, so that's
2 where -- the reason I was requesting a tank barge.

3 Q. Were there any other Donjon-SMIT employees or marine salvage
4 engineers deployed for the *Spirit of Norfolk* incident?

5 A. Oh, yes. Mr. Williamson joined us either at the end of the
6 2020 unified command meeting -- and again, he's the vice president
7 of salvage for Donjon. And we had Mr. Paul Faran (ph.) come up
8 from Jacksonville after the 2020 meeting. As they were standing
9 up the unified Command that was identified that they needed -- or,
10 that Captain Stockwell wanted an op section chief.

11 Mr. Williamson was on the phone during the meeting and he
12 volunteered to take that position, which he's held in the past,
13 and identified Captain Faran, who has been a section chief,
14 planning chief in the past. He's stationed in Jacksonville. And
15 had him get on an airplane and get up the following morning. We
16 had a five-man salvage team enroute shortly after I was, coming
17 down from New Jersey.

18 We mobilized a -- or, Mr. Hernandez mobilized Bill
19 Sugerros (ph.). He's with marine firefighting, MFF. He was in
20 Newport News. He got on the dock sometime 1800 and 1830, or
21 around there. And his principal role we brought him on was delays
22 with the firefighters on there, because we were not fighting the
23 fire. We were there solely to de-water the vessel. And then
24 later, after the 2020 meeting, we realized it was going to go into
25 the night for a longer period of time, we mobilized several people

1 out of Houston and additional people from MFF.

2 Q. Can you kind of go a little more into how those roles were
3 divided amongst all those people? I know they came at different
4 times, but how was it divided up for who did what?

5 A. Since I was the first Donjon-SMIT person on-scene, I became
6 the lead man, or lead person, for Donjon-SMIT. So, basically,
7 gathering information and, as my function as the engineer, looking
8 at the vessel, ascertaining how the vessel was sitting.

9 Mr. Williamson, upon his arrival, he became the lead Donjon-SMIT
10 individual as well as the operational section chief.

11 Mr. Hendricks continued in his capacity as the survey and I
12 utilized him as his eyes on the vessel. He took most of the draft
13 readings on the 7th and the night of the 7th. Mr. Hendricks was
14 the liaison with the fire department. And then as we staffed up,
15 of course, we have a dive team from Chesapeake Bay and they were
16 able to provide 24/7 coverage for us. So, we had three or four
17 people from Chesapeake Bay, including either Mr. Addison or
18 Mr. Dorn, who is also a principle of Chesapeake Bay, on-hand at
19 all times to move pumps, set up pumps, get ready to de-water.

20 Q. Can you kind of talk about -- I know you mentioned yourself
21 since you were there first and then someone else that was a lead.
22 Who was in charge? Can you kind of talk about who was in charge
23 for Donjon-SMIT?

24 A. When?

25 Q. At the -- June 7?

1 A. Well, initially, I was and I'm, you know, literally a one-man
2 band with the RSA and Mr. Saugus and the Chesapeake Bay guy
3 divers. But as soon as Mr. Williamson arrived, he became in
4 charge of the Donjon-SMIT activities on-scene.

5 Q. We know pre-planning is important in these types of
6 situations. Was there a pre-arrival documentation or plans that
7 Donjon-SMIT already had for the *Spirit of Norfolk*?

8 A. We had -- we held the fire plan as required by regulation,
9 but we did not hold all the plans for the vessel. I asked for
10 those early on while I was enroute and Mr. Hernandez worked with
11 the owners of the vessel and they reached out as early as 1630, I
12 believe, to get some of the plans from the designer and builder of
13 the vessel.

14 Q. I'm going to ask LT [REDACTED] to display Coast Guard Exhibit
15 068, tack 1. That's a -- this is the vessel fire plan that was on
16 the vessel. Mr. Edgar, can you kind of talk about that and what
17 we're looking at for the benefit of the public? And is this the
18 fire plan you had?

19 A. This is not the fire plan that we actually had.

20 Q. Okay. Is it similar, or?

21 A. I would say it's similar and it's been annotated with
22 different colors and labels and whatnot. The plan that was on the
23 dock was not so annotated.

24 Q. The plan that was on the doc, did it have the colors
25 as -- like that of the red, the yellow, and the green?

1 A. Negative.

2 Q. Okay.

3 A. Not that I was aware of. The plan had been rolled back.
4 What I saw was basically the plan view and the upper corner view
5 where it shows emergency escape trump. The plan was a drawing, if
6 you wish, quite large and they had rolled back the upper decks of
7 it, so they weren't visible. And I think they even tucked in some
8 of the sides so it would fit on the tailgate where they were
9 working.

10 LCDR [REDACTED] You can take that down, thank you.

11 BY LCDR [REDACTED]

12 Q. In your prelim preliminary interview, you had stated that
13 Donjon-SMIT has varying amounts of documentation pre-stored for
14 certain vessels in their database. Some vessels have more. Some
15 vessels had less, such as the *Spirit of Norfolk*. In this
16 instance, as you mentioned, you only had the fire plan. Do you
17 know why that is? Why some vessels have more and some have less?

18 A. And in part, DDS. Some of our newer vessels actually have
19 less. Ship designers and shipbuilders are becoming more
20 secretive, if you wish, about releasing documentation,
21 particularly things like lines, drawings, and things that we would
22 really need. So, you almost have to wait till the casualty to pry
23 those loose. Other vessels owners, one company in particular I'll
24 name is Stolt Tankers. They are -- they flush their database and
25 we have direct access to just about every drawing on the

1 ships -- all of their ships. And some people/owners don't and
2 some owners it varies from ship to ship.

3 Q. So, do you know who determines, then, the plans and
4 schematics that go into the database for each vessel? Is it
5 Donjon or is it the vessel's owner and operator that puts those
6 documents in your database?

7 A. I know that Mr. Hernandez, who's the general manager for
8 Donjon-SMIT, encourages the owners to put as much as possible into
9 it. The database is quite large for -- as the Open 90 providers.
10 Donjon-SMIT is the largest. We have probably 60 percent of the
11 vessels that call in the United States and its territories. So,
12 the database is significant. I personally don't go into the
13 database very often unless there's a drill or a casualty to review
14 to see what is there. But I do have access to it.

15 Q. And prior to and after arriving at Pier 4, did you request
16 any documents from City Cruises or Hornblower to assist in your
17 work?

18 A. Yes, I did. I requested that Mr. Hernandez acquired those
19 while I was under way. And as I indicated in just a few seconds
20 ago, I do know that as early as 1630 that the owners had reached
21 out to the ship designer to get that information. And they
22 work -- I know that the owners worked very hard because when we
23 finished up, some of that information was coming into my email
24 before going into the 2000 meeting.

25 And when we got out of the 2000 meeting, it was pretty flush.

1 There was a lot of information that I was able to download,
2 including a ship model, which was very, very nice to have, that
3 the owner -- the designer, excuse me, had developed. And all that
4 information, all those references, one of the first things I did
5 after speaking with SERT -- evidently, LT Karen, I can't remember
6 her last name, the duty officer had called me back while I was in
7 the 2000 unified command meeting.

8 When I got out, I looked and I had -- obviously had a string
9 of phone calls that I had missed and I started working. And she
10 called back and I discussed the issue with her, what we had down
11 here. She had yet to hear from the sector. And glad for her
12 heads up. And our traditional relationship is with them, if we
13 get information, we share it with them. If they get references
14 and information, they share back. It's a very good working
15 relationship.

16 We do not go outside the Coast Guard chain of command. Her
17 boss is aware that we're talking and liaisoning. And I always let
18 the IC or the UC know, oh, by the way, I'm over here talking to
19 them, rather than them getting involved in nuts and bolts and
20 stuff that the engineers get involved in. They want to see the
21 finished product and the finished product is generally from SERT
22 down to the sector and concurrently from us up to the sector.

23 And what I did is I said, I got all this reference material
24 coming in and I saw an SAG (ph.) model in there. I'm going to
25 send you this all raw. And once I get sorted through usual

1 arrangement, I'll share my model, I'll share my run files.

2 I do work in general hydrostatics, GHS. So do they. And she was
3 obviously at home at that late in the evening and says, all right,
4 I'll check it tonight and see what I got tonight, and then I'll
5 talk to you first thing in the morning.

6 Q. So, you just mentioned that you received most of the
7 documents for that 2000 meeting --

8 A. They were coming in while I was going to the meeting, while I
9 was in the meeting, and later after there's a few documents that
10 we kind of wanted, structural documents that we wanted, and we
11 specifically asked for. And as I said, Hornblower was on it. We
12 got it and, within a half hour or so, those -- that drawing
13 appeared.

14 Q. Prior to and after arriving at Pier 4, did you request any
15 documents from the local Coast Guard unit?

16 A. Prior to arriving at Pier 4 at the navy base, I had no
17 discussions whatsoever with the Coast Guard.

18 Q. And after arriving to Pier 4, did you request any documents
19 from the local unit? Not from the salvage.

20 A. Not until we got into the unified command meeting. I was
21 expecting to see a ICS 2000/2002 form. I didn't see it and they
22 indicated they hadn't done it yet, and I said okay.

23 Q. Did you ever receive those forms?

24 A. They came out the following day and Mr. Williamson, by that
25 time, was on-point with that and he was following it.

1 Q. So, you -- I know you had gotten and talked about your
2 relationship and the interactions you had with the Salvage
3 Emergency Response Team. Was there -- was the assistance you
4 received from them timely and accurate? I know you had mentioned
5 that you had got a phone call later because you had left a
6 voicemail, but in your opinion.

7 A. Commander, I don't characterize our relationship with SERT as
8 getting assistance from them. It's a working together
9 relationship. We each have our own chain of command. But down at
10 that level, if you wish, we liaise very well together. They're
11 very encouraging. The people whose staff SERT, like I said, are
12 junior officers, lieutenants, maybe a lieutenant commander, mostly
13 out of graduate school it seems. You'll have to ask the Coast
14 Guard for more detail on that.

15 But these are bright young folks and -- but they don't have
16 experience, you know? We kind of encourage them to get out and
17 train with us or come out on an operation with us. And
18 occasionally they do. We had one up on the Ever Forward when we
19 refloated her. He got to spend some time not with me but with
20 the -- one of our other salvage engineers, Alex (ph.). So, yes,
21 it's not -- we don't go to them for assistance other than we do
22 share documentation.

23 Q. We had mentioned several folks that aided in your efforts and
24 that you worked with. Did we miss anyone that supported your
25 efforts on June 7th that we haven't discussed?

1 A. I know that Mr. Hernandez had a lot of things going on and he
2 was having a lot of discussions regarding the tank barge
3 situation. And I know he was interacting with the owner when the
4 rest of us couldn't. For example, I did call him back when I was
5 on the dock. I can't find Ms. Thompson. You know anything? He
6 says, she's supposed to be on the dock. Let me call you
7 right -- oh, hang on. He got on another line and called,
8 say -- they called her.

9 I didn't -- evidently, when I called her cell number, she
10 didn't recognize the number and didn't take my call. Right? And
11 so, as soon as we broke the ice, she's indicated she was on her
12 way up to the command post that was just established, the truck
13 that the Port Authority brought over. So, I started heading that
14 direction and met her there.

15 Q. And just to clarify for our timeline purposes, can you go
16 over again how long it took you once you were activated to get to
17 the scene and what time it was that you arrived on-scene?

18 A. I think I was notified at 1537. I probably left -- got
19 underway within 15 minutes. I keep a jump bag packed. All I had
20 to do was DC my computer from its docking station and grab the
21 jump bag, throw it in the truck, and head north. I got to the
22 dock approximately -- the head of the pier -- the parking lot at
23 1715. I got to the head of the pier approximately 1730 where I
24 met Mr. Hendricks. And it took us probably 15 minutes to walk the
25 length of that pier, including the time we talked to the fire

1 officer.

2 LCDR [REDACTED] LT [REDACTED] can you pull up Coast Guard
3 Exhibit 042, tack 1, which is a picture of -- some pictures
4 on-scene that day on the pier of the command post. Page 2. Okay.
5 Thank you.

6 BY LCDR [REDACTED]

7 Q. When you arrived at Pier 4, were you directed to some sort of
8 command post? And is that the command post when you arrived that
9 you saw?

10 A. When I arrived, I wasn't directed. I was in search of. I
11 walk the dock and I saw that Suburban, but it was not -- it did
12 not have its tailgate up at the time. The tailgate that was up
13 with the CP flag flying was closer to the end of the pier on the
14 south side of the pier after the stern of the *Spirit of Norfolk*.

15 Q. And this --

16 LCDR [REDACTED] Keep it up for one second LT [REDACTED]

17 BY LCDR [REDACTED]

18 Q. There are two people there that you can see wearing an
19 incident commander vest. Was that the case when you arrived?
20 There's one in the orange and one in the yellow there.

21 A. I did not see them. The people I saw wearing vests were the
22 firefighting department from the base and they were wearing white
23 vest. And I did not see what was on the back of them because I
24 approached them -- we're approaching face-on, like I said, when I
25 peeked my head over the crowd.

1 Q. Did you have an interaction with them any time after, with
2 the two incident commanders there?

3 A. I believe around 1845, 1850, the Norfolk Fire Department
4 chief may have been in attendance with the huddle at the Norfolk
5 Base Fire Department CP.

6 Q. Do you remember who -- the first person you reported to when
7 you arrived on-scene at Pier 4 on June 7th?

8 A. In addition to questioning the fire officer, I reported to
9 Captain Ryan, who was sitting on the north side of the pier at the
10 end.

11 Q. And upon your arrival at Pier 4, who did you believe was in
12 charge of the incident? Or were you told who was in charge of the
13 incident?

14 A. I was not told who was in charge. But at the scene of a
15 fire, generally, it's a fire chief. I sought out a fire chief.

16 Q. You had mentioned earlier and in your preliminary interview
17 that you briefly spoke with Captain Nadeau when you arrived on
18 Pier 4. In your opinion -- and I'm paraphrasing, but he was not
19 good to give a good indication of some of the information you were
20 looking for. Can you kind of talk about what he told you and why
21 you thought that?

22 A. He was sitting there by himself on the curb, if you wish,
23 when I walked up to him and -- I'm not an expert, just a medic.
24 When I looked at him, he kind of had that 100-yard stare look.
25 I'm sure he was thinking about the events of the day. He told me

1 about the casualty and, you know, I just said, dang, you know,
2 that was a hell of a great job, you know, to get all those people
3 off. And I was kind of interested in more in the details of the
4 vessel and not, you know -- other than it was an engine room fire
5 and whatnot.

6 And like I said, he was probably taking a deep breath at that
7 point and I said, let it ride, you know, but please come back and
8 talk to me, because he gave me two different fuel amounts and he
9 didn't -- it wasn't what I was looking for. I was looking for
10 something a little more concrete and I don't think he wasn't the
11 state of mind at that point in time to pony it up. But he did
12 seek me out during and after the 2000 meeting, and he was clear
13 and conversant and had the information that I wanted.

14 Q. What was the information that you had wanted in your first
15 meeting with him that you didn't get from him?

16 A. Liquid load.

17 Q. When you finally did meet Ms. Price Thompson after the
18 meeting or at the meeting, can you kind of talk about your
19 interaction with her and the assistance she provided?

20 A. When I got to talk to her, I think she had been talking with
21 her office and they were talking about sending an individual from
22 Michigan down to be the QI, if you wish. And she had -- obviously
23 had a lot on her plate. And by that time, Mr. Williamson was
24 about to walk in the door, so we did not have a long conversation
25 other than she was going to be available. And if I needed

1 anything that I wasn't getting, to let her know. And, you know,
2 where are you going to be? And she says, I will not go very far.
3 The command post was getting a little bit crowded and I was
4 looking for a flat spot. She says, I would not be very far. It'd
5 either be inside here with you or I will be outside the door. But
6 if you need anything, don't hesitate to reach out to her. By that
7 time, she recognized my cellphone number, so if I called her, she
8 was going to respond.

9 Q. Earlier, you had briefly mentioned that -- about your
10 interactions with Captain Stockwell, at the time, the deputy
11 sector commander. Can you kind of talk about your interactions
12 with her?

13 A. My first interaction occurred after I was listening -- had
14 been listening to the conversation with the fire chief from the
15 navy base and he was discussing his plan to make a second entry.
16 And she walked up to that group and, at some point in time, she
17 overheard the conversation and indicated that there was an issue
18 of stability. I probably preempted the fire chief and I said, I
19 don't think so. You know, I'm comfortable right now that we've
20 got stability and, she pretty much focused on me and not the fire
21 chief.

22 Unfortunately, I think if she had had a little longer
23 discussion with the fire chief, he may have instilled some
24 confidence in her and some -- that he had a practical -- perhaps
25 had a practical solution to the series of ongoing events. But she

1 was -- she pretty much focused on me and was arguing and
2 discussing stability and wanting a written fire plan. And I
3 pointed to the fire chief and he -- it was his plan to write. And
4 I had pulled up my tablet and pointed to the bullets that I had
5 written down there and this is not going to fly. She says, no, I
6 want my staff to review it.

7 And it was those words that made me a mental note to reach
8 out the SERT soon as I got off -- got an opportunity. And it was
9 at that time, I believe that she said, the vessel's already a CTL
10 and I'm worried about stability and I do not want to endanger any
11 of the firefighters. And I concurred. We're not trying to
12 endanger firefighters, but I do believe the vessel is stable.

13 And then she said, well -- she was -- the assistant captain
14 of the port or the captain of the port, and then we said, we
15 weren't going to make another attempt, which I says, okay, you
16 know? I wasn't in the position of being in charge of the salvage
17 nor the fire. There was somebody else already filling that
18 position. I didn't have a qualm with that, but I think she was
19 frustrated and I was a good source to vent on, which I'm fine. I
20 got shoulders. I can handle that. I've been there before.

21 Q. I just want to clarify because you said, second attempt. Was
22 that after the firefighting mayday this discussion happened?

23 A. The meeting that there was ongoing at that time was
24 initiated, being managed, or moderated by the Norfolk base fire
25 chief. And it was -- I would akin it to one of our toolbox talks.

1 There was a lot of give and take amongst the other fire officers.
2 The docking pilots were hovering around. Several of the folks,
3 the support people were hovering around. Chesapeake Bay was not
4 there. I made a note in my book to reach out to Aaron to make
5 sure that he knew what was going on as a result of that meeting.
6 If they did make another attempt, I wanted his small boat in the
7 vicinity. And there was just -- something was brought up about
8 radios and I said, I have a marine radio, so I can liaise with the
9 docking pilots to help you control the tugs.

10 Q. What was your plan? Did you propose a plan to Captain
11 Stockwell regarding the firefighting efforts or salvage efforts?

12 A. I never proposed a plan about the fire efforts. Never once.

13 Q. Can you kind of go a little more into detail about the
14 concerns expressed by Captain Stockwell, what she brought up to
15 you?

16 A. She and later several other people kept using the term,
17 stability. All right. The stability of the *Spirit of Norfolk*,
18 she was not lolling. She had 2.5 ft of free board. When I did
19 the back envelope calculation, if you wish, using the period of
20 roll, the GM, which is a measure of stability, was in excess of
21 four feet. To the north, the navy destroyers sitting across the
22 pier, when they're dressed out and they got their antennas covered
23 in they're doing maintenance work, their GM is close to one foot.
24 So, stability is a relative issue.

25 Also, in the other measure of stability, which when I did do

1 the formal calculation, it turns out that the GM was in larger
2 than the estimated GM, was upwards of five feet. But the righting
3 energy, in other words, the energy to keep the ship upright or to
4 re-right it after it rolls was almost 10-foot degrees, which by
5 Coast Guard regulation is the minimum requirement for a crane
6 barge, so the vessel was quite stable. And all this was sent to
7 SERT and SERT agreed with it.

8 Q. So then, would you agree that you had a plan of action based
9 on your naval architect field calculations that you performed?

10 A. Plan of action for what, ma'am?

11 Q. Just for how to alleviate the concerns from Captain
12 Stockwell.

13 A. I don't really think she understood. We got a GM in excess
14 of four feet. That's very good. By that time, we were in the
15 2020 incident command briefing. Everybody else was in there. And
16 at that time, she did go around the room, do we continue
17 firefighting? And you can look on the floor and see the vessel
18 was fully -- it was burning more intensely and everybody agreed,
19 nope. That moment has passed.

20 Q. So, prior to the conversation with Captain Stockwell, had you
21 received yet or were you able to review any stability diagrams or
22 reference drawings or set-up diagrams in connection with the
23 Salvage Emergency Response Team or any other source at that time?

24 A. My first encounter with Captain Stockwell was an hour after I
25 was on the dock -- less than an hour after I was on the dock. I

1 had not even meaningful the time the period of roll but looking at
2 it, like I said, it was -- no calculations were provided. You
3 know, SERT wasn't involved. They hadn't even been informed. We
4 were the first people to notify them. So, I don't know where I
5 would've gone other than request what I did while I was under way
6 enroute the pier that we get the rest of the documents,
7 specifically the Trim & Stability Booklet.

8 LCDR [REDACTED] I believe we're going to --

9 MR. EDGAR: Ma'am?

10 LCDR [REDACTED] Yeah?

11 MR. EDGAR: And I provided you -- or, during previous
12 testimony, all of my emails and other -- there's email trains
13 within that documentation that addresses the request for vessel
14 documentation and the times it was requested.

15 LCDR [REDACTED] Thank you, sir. We're, I think, going to go
16 into a break real quick.

17 CDR WADDINGTON: Yeah. The time is 1208. We'll take a
18 recess until 1220. Thank you.

19 (Off the record at 12:08 p.m.)

20 (On the record at 12:20 p.m.)

21 CDR WADDINGTON: The time is 12:20. This hearing is back in
22 session. LCDR [REDACTED] please continue.

23 BY LCDR [REDACTED]

24 Q. Mr. Edgar, I just want to go back for one second just to
25 revisit the timeline to ensure we're getting the accurate time of

1 events. 715-ish you pulled up. That's when you arrived. 730,
2 you were actually near the incident scene at the pier from the
3 time it took you to get to the pier. 1750. When was it that you
4 had these conversations that we've been discussing with Captain
5 Stockwell?

6 A. Somewhere in the neighborhood of about 1830 to 1850.

7 Q. Okay. So, those conversations you had had with her were
8 after the firefighting mayday and after the watertight door had
9 been opened.

10 A. Yes.

11 Q. Okay. I'm going to ask LT [REDACTED] to pull up Coast Guard
12 Exhibit 048, which are Mr. Edgar's field notes, and turn to
13 page 4. I'll give you a second to look at those on page 4. Under
14 the redaction there, it looks like there's several entries. They
15 look like they're referencing the captain of the port and the
16 assistant captain of the port. It's abbreviated. Is that
17 correct? My assumption.

18 A. Yes, sir.

19 Q. Okay. Can you kind of take us through those notes and
20 explain these entries?

21 A. Where it says COP/ACOP, I've got Nav fire chief plan a no-go.

22 Q. Yes, sir. And can you put your mic a little closer? Sorry.
23 Yes, sir. Kind of take us through those and what that means.

24 A. All right. The discussion with Captain Stockwell, at that
25 point, the naval base fire chief, the plan he had put together and

1 outlined, she said it wasn't going to be a go. It was not going
2 to be executed. So, I just wrote a note to myself, a no-go.
3 Below that, she wanted it in writing. My arrow over to it says,
4 no tablet. She wanted a staff review. I made a note to myself,
5 where is the staff? All right. Stability. I made a note to
6 myself, look, no lolling, free board. And off to the right is do
7 BOE, back of the envelope. Below that, per COP/ACOP, SON, *Spirit*
8 *of Norfolk*, is a CTL, constructive total lost. Must rep P&I,
9 referring to the P&I club, underwriters. I made a note to myself,
10 now miffed. All right. Somebody say something? All right.

11 Q. I'm sorry. Continue.

12 A. All right. Captain of the port, safer to let burn and maybe
13 sink than fight the fire. Below that is a note to myself, 1831,
14 call SERT.

15 Q. Thank you.

16 LCDR ██████ Can you turn to page 1, LT ██████ and we'll go
17 back a few.

18 BY LCDR ██████

19 Q. It looks like these are several calculations. Would that be
20 a fair statement? Can you kind of tell us about what these
21 calculations were?

22 A. I need to go explain the way I keep notes. It's kind of the
23 chaos theory. All right. I had made a note entry departure
24 condition, you know, so I need to find a departure condition. I
25 was trying to find that initially from Captain Nadeau, and

1 ultimately I got that. And the numbers you see there came out of
2 the inclining experiment, so these were the genesis of my
3 calculations. But I'll go back when I make a note. I need to do
4 something, sometimes I'll go back and make a subsequent note in
5 that placeholder, because these notes were never intended to be
6 previewed (indiscernible). They're my notes, my mind, my way of
7 thinking, you know? I hope that clears that up.

8 Q. Were any of these calculations in your notes -- and could be
9 on another page as well. Were they in reference to Captain
10 Stockwell's stability concerns? Did you ever show her these
11 notes? Did you ever show her any calculations or how you came up
12 with them? Did she ask for them?

13 A. I did not show her my notes. I did not show her any
14 calculations that I did it within here because they're notes. One
15 of the other things I do when I -- is I use my notebook as doodle
16 paper sometimes. So, you'll see lots of cross outs of this, that,
17 and the other thing going on. Again, they were my notes for my
18 purposes. But there is one specific calculation, if I can find
19 it. Yeah. On page -- the bottom page 3. Under the meeting from
20 the fire chief's -- the bullets on there from the fire chief's
21 meeting. I had made a note to myself, monitored drafts/periods
22 and that's where I did my back of the envelope calculation for
23 calculating the GM based on the period of roll.

24 Q. And did you ever explain that to Captain Stockwell or have a
25 conversation about that?

1 A. No. I just indicated in the 2000 meeting what the GM was.

2 Q. You had mentioned earlier and in your preliminary interview
3 that you stated that when you arrived at Pier 4, you noticed that
4 the *Spirit of Norfolk* had a port list down at the stern of the
5 vessel. Do you know why the *Spirit of Norfolk* had a port list at
6 the stern of the vessel?

7 A. She had a short list throughout the length of the vessel, not
8 just at the stern. But I do not -- why she had a port list,
9 ships, when they're built and operated, the transfer center of
10 gravity is never 0/0. It's never in the down the center line of
11 the vessel. It's always off one way or the other. It may not be
12 much, but it's off. In the case of *Spirit of Norfolk*, she did not
13 have very many tanks to begin with and a couple of them were port
14 and starboard, so a little bit of fuel out of the starboard fuel
15 tank and more than the port fuel tank, and she would have a little
16 tendency to heel one way or the other.

17 And once the water was on board, it's going to move to that
18 side and create that heel. And as time goes on both in a flooding
19 situation and certainly within a fire situation, heels and trims
20 tend to get worse because things tend to fall and gyrate or flow
21 to the lowest corner side, aft, whatever they're allowed to flow
22 to.

23 Q. So, if a vessel is listing more to one side than the other,
24 what can that tell you about a vessel?

25 A. It has an offset center of gravity, obviously, to the port

1 side. In this case, the vast majority of that was probably caused
2 by the fire water that was contained with inside the hull.

3 Q. So, were you concerned about the vessel's stability and
4 potential for capsizing due to those firefighting efforts and the
5 amount of water that was added to the inside of the vessel during
6 the first day of the incident on June 7th?

7 A. My concern was not stability, as I indicated, and proven that
8 the vessel had good stability throughout the entire process. At
9 no point in time was -- do I ever think that the stability was
10 below -- the geometric height was below two feet, and the
11 calculations support that. That was -- in my mind, that was not
12 the issue. The issue was the water, the amount of water she's
13 going to -- the possibility of down-flooding and losing the vessel
14 because of the added water. And there was no way to get the water
15 off other than pump it and we couldn't get a pump on until the
16 fire was out one way or the other.

17 Q. In your many years of experience, have you ever witnessed a
18 vessel in less than stable conditions suddenly capsize?

19 A. Three incidences, yes, ma'am.

20 Q. As a naval architect, do you know from a scientific
21 standpoint the conditions that lead to a sudden loss of stability
22 and vessel capsizing?

23 A. Rapid weight movement change. Crane vessels, for example,
24 is -- the classic is they become unstable because they pick too
25 much weight too high. I witnessed one of those. In this case,

1 it -- actually, the failure mode was a structural failure of
2 the -- of a guy and the weight shifted. Could be a weight shift
3 loss of a bulkhead. Could be a weight shift as a result of
4 additional ingress of water from outside the hull. But generally
5 rapid motions of the ship are a result of something -- a rapid
6 motion within the vessel or external to the vessel.

7 Q. Can you talk about the recording of the *Spirit of Norfolk*
8 draft marks and logging them periodically throughout the incident
9 on the first day of June 7th?

10 A. Yes, ma'am. Initially, I looked at the draft marks and did
11 not write them down when I first walked by them because I had an
12 objective to find Ms. Thompson and report in to her and to find
13 the incident commander and report in to the incident commander.
14 And then my intent was to go back and do a little more detailed
15 survey, if you wish, of both draft marks and period of roll. So,
16 I commenced taking draft reading sometime -- 2055 is when I took a
17 set, but I also had Mr. Hendricks recording draft readings every
18 30 minutes from the time that he got on the dock.

19 LCDR ██████ LT ██████ can you please pull up Coast Guard
20 Exhibit 048. Which again, I think you're there, but they're your
21 field notes, and scroll to pages 7, 8, and 9.

22 BY LCDR ██████

23 Q. Is that correct to say that's kind of where your draft marks
24 started, your draft recordings?

25 A. Yes. And again, I also had them from Mr. Hendricks.

1 Q. Can you kind of explain why you record draft markings and why
2 draft -- what draft markings can tell you about a vessel that's
3 taking on water?

4 A. The draft marks will give you trim, heel, overall
5 displacement. Change in draft marks will give you change in heel,
6 change in trim, change in displacement.

7 Q. We're going to kind of shift into the interactions with the
8 firefighting agencies just also to get an accurate timeline. I
9 know there were several there, so just to make sure we know who
10 was there, who you had interactions with. So, what firefighting
11 agencies or firefighting points of contact did you speak to
12 specifically after arrival to Pier 4 on June 7th?

13 A. Walking down the pier, I spoke to one fire officer and I
14 believe he was from the City of Norfolk. And then the next fire
15 officer that I spoke to was the group of fire officers led by the
16 Norfolk Base fire chief at the rear of their command post. And
17 then at the 2000 meeting, I do believe that fire officers present
18 were both the chiefs from both the City and the Base. And I did
19 not have long conversations with either one of them during the
20 meeting and did not have any conversations with them after the
21 meeting.

22 Q. Can you discuss and detail any conversations you had with any
23 firefighting agencies regarding the plan for firefighting re-entry
24 after the engine room watertight door had been opened on the
25 previous attempt?

1 A. Yes, ma'am. As I've indicated, I walked up to a meeting in
2 progress, was allowed to enter that meeting after I had introduced
3 myself. All right. And offered support. And I listened and
4 recorded the principal features of what the Norfolk Base fire
5 chief was planning to do and then, again, offered what limited
6 support I could to assist him in any way I could. And that
7 appears on page 3.

8 Q. And that was the Navy Mid-Atlantic Region Fire Department?

9 A. I just knew him as the navy base fire chief.

10 Q. Can you kind of talk about your role in the unified command?

11 A. My role briefly at the 2000 meeting -- or, the 2020, was to,
12 A, attend, comment when ask. Mr. Williamson by that time was on
13 the phone. I listened to what was being requested of us, made
14 notes. As I indicated, the command was looking for an operation
15 section chief. Mr. Williamson volunteered for that. They were
16 also looking for a planning chief. Came to mind that Paul Faran
17 would be -- Captain Faran would be a good choice.

18 At the command post meeting, there was a general discussion
19 about whether next meetings were going to be held. No water on
20 the vessels, passengers off. We nailed down the amount of fuel
21 that was on board. And you'll look -- there's a to-do with an
22 underline, test fluid. One of the issues with obtaining a barge
23 was just for us to pre-test the fluid to know exactly what we had.
24 A note for me to get up with the base XO to get Tim clearance to
25 get on the base.

1 Sup Sal (ph.). Since we were working on the Navy base and we
2 do hold the East Coast Navy Salvage contract, that's a courtesy
3 call. A heads up here. Here we are. We're down here working
4 just in case you get a call. Captain of the Port Order wanted to
5 get -- attain the captain of the Port Order. The note on planning
6 chief was to reach out to Mr. Faran and get him on an airplane as
7 soon as possible headed north. And we made a note to my 2155
8 telephone conversation with SERT.

9 Q. Can you help us understand, was it you, Norfolk Fire
10 Department, Navy Mid-Atlantic Fire Department, who was it that was
11 going to provide a written plan to the captain of the port before
12 any firefighting efforts would continue on board?

13 A. It wasn't going to be me or Donjon-SMIT. And it was my
14 understanding that if a written plan was presented, it would've
15 been presented and prepared by the Norfolk Base fire chief.

16 Q. The Navy?

17 A. Navy.

18 Q. Okay. Do you know if that plan was ever submitted to your
19 knowledge?

20 A. I don't know.

21 Q. Okay. Did you at any time during those unified command
22 meetings voice your opinions or concerns you had or anything on
23 the topic specifically as your role as the salvage master?

24 A. No, ma'am.

25 Q. Were your decisions throughout the incident and the following

1 days made in conjunction with the unified command once it was
2 formally established? And were there any suggestions that you
3 made based on your expertise that were discounted?

4 A. First part of the question. Yes. We work with the UC.
5 We're comfortable working under a unified command once it's
6 established. We know where to go within the UC to get things
7 done, where to go to planning, go to operations. Logistics? We
8 were pretty much on our own this time for logistics and there was
9 no logistics chief associated with the unified command that I'm
10 aware of.

11 Our plan submissions that -- we subsequently submitted a
12 couple of plans. One was the placement of de-watering pumps. One
13 was the diving plan to secure the hull opening, sea chests,
14 rudders, propellers, and doing a complete hull inspection. The
15 plan to overhaul the vessel after the fire was effectively
16 extinguished, knocked down. That did fall to Donjon-SMIT and we
17 were aided by the Norfolk Base Fire Department. They provided the
18 backup for the Donjon-SMIT people to make entry and put out fires.
19 But I wasn't on the dock when that was occurring, so any specific
20 questions to that need to be directed to somebody else. And of
21 course, the towing plan to move the vessel from Pier 4 to
22 Colonna's Shipyard.

23 LCDR [REDACTED] I'm going to ask LT [REDACTED] to display Coast
24 Guard Exhibit 067, which is a picture of the Spirit in Norfolk on
25 June 9th.

1 MR. EDGAR: Yes, ma'am.

2 BY LCDR [REDACTED]

3 Q. At approximately 3:00 a.m. on June 9th, did you get consulted
4 about the increased list and deck immersion on the *Spirit of*
5 *Norfolk* as shown in that picture?

6 A. Yes, I did. I got a call 2:15 or so in the morning from
7 Mr. Martin Dorn from Chesapeake Bay Diving, indicating -- excuse
8 me, from Mr. Hendricks, indicating the vessel had taken on a
9 significant yield to port and that the port deck aft was awash. I
10 hadn't put my feet on the floor yet and sat up in bed and Mr. Dorn
11 called me and said, hey, we had an increase in list and I'm
12 pumping.

13 So, whoa, how is that going? And he says, it's going good.
14 We're moving water and the vessels coming up. And I asked him, do
15 you need either myself or Mr. Williamson to come in? And he said,
16 no. Having worked with Mr. Dorn for numerous years in the past,
17 I'm very comfortable. And he says he has it under control, he has
18 it under control.

19 Q. So, from a layman's perspective, it looks pretty serious in
20 that picture. Can you explain what might have caused those
21 changes in the vessel's stability condition?

22 A. During a fire, a lot of things are going to happen. We just
23 had an intense fire. The vessel is basically burned out by this
24 time. The vessel was fully engulfed and burned out. In the
25 engine room, specifically, and other spaces where they were

1 impacted by the fire, different metals are going to react,
2 different materials and construction are going to react to heat
3 and temperature changes.

4 And one of the things that is going to occur in the fire is
5 basically all the gaskets are going to burn out of piping, any
6 flexible rubber connections are going to be destroyed. So, there
7 is a good possibility that water was coming in through the engine
8 room, perhaps through this stern, too. But there was water
9 underneath that. But something like that is going to occur.

10 Also, gaskets in deck hatches and scuttles and whatnot are
11 going to become compromised. Metal is going to take different
12 shape in a fire. You know, get to 1,300/1,400 degrees, steel goes
13 plastic. Yeah. So, we probably had temperatures well in excess
14 of that during the -- when the vessel was fully engulfed.

15 All right. I did not analyze it, but we found -- later found
16 water in both the lazarette and the steering gear, and I'm not
17 going to offer an opinion or surmise, but the water had to get
18 there from someplace. So, that would probably be someplace to
19 look to see if it came into there.

20 Q. Do you know if any water was pumped from the *Spirit of*
21 *Norfolk* entered the waterway at any point in time?

22 A. Absolutely no water that was pumped went into the waterway;
23 however, runoff from the firefighting effort did go into the
24 waterway. There were lots of foam clouds under the pier and
25 around the vessel during -- when I got to -- initially got to the

1 pier. And later when they were cooling, there were still some
2 foam and, of course, any water that's played on the side or the
3 deck is going to run off.

4 Q. At this point in time when they're pumping off, did you have
5 confidence that the vessel would not capsize given that there was
6 pumping/de-watering going on?

7 A. Once they got the deck above the water, yes, very
8 comfortable. And the barge arrived at midnight or right before.
9 Mr. Dorn and his crew were on night shift. They had laid the
10 hoses out and laid them up on deck like they were going to be
11 connected to the cargo block on the barge ahead of time, waiting
12 for the tankermen to arrive. So, it was just a quick matter for
13 Mr. Dorn to open a expansion trunk, put a hose in it, start up his
14 hydraulic power unit, and engage the pump, and start de-watering.

15 And that was all done ahead of time and was done by the
16 Donjon-SMIT staff that was on hand. There was no ability for the
17 tank barge to pump water off the *Spirit of Norfolk*. The pumps on
18 tank barges are designed to pump material off the tank barge to
19 some other recipient, so we couldn't use a pump on the tank barge
20 if we wanted to.

21 Q. So, did your de-watering plans go according to schedule? And
22 were there any setbacks?

23 A. Actually, moved forward faster than we originally thought.
24 We made some changes in some of the discharge hoses. We had
25 copious quantities of hard hose. Initially, we rigged the pumps

1 with soft house/collapsible hose and -- because of going around
2 obstacles on the pier and everything like that, that we were
3 getting losses in flow through those. So, periodically, we'd
4 replace a section of hose with hard hose and it increased the rate
5 of discharge.

6 Q. So, this is -- this investigation is gathering facts and I'd
7 like to offer you an opportunity to share any recommendations that
8 you might give that could help prevent another tragedy like this
9 fire and loss of the Spirit in Norfolk.

10 A. First of all, I want to take my hat off to Captain Nadeau.
11 He did a hell of a job. As far as what you could do different, I
12 think that as far as the fire responses, people who don't
13 regularly practice incident command need to be a little more
14 aware. People who don't regularly deal with marine casualties
15 need to be a little more attuned to the terminology it's using.

16 People have used the word, for example, stability, when it
17 doesn't apply to stability. Stability's very -- is very specific.
18 Draft are not stability. You know, they can be an indicator of
19 stability. So, when the draft changes, does stability change?
20 Maybe, maybe not.

21 So, the level of knowledge in some of the responding
22 activities needs to be -- perhaps be enhanced a little bit.
23 Better training, more familiarization with the emergency
24 responders and the things that they do.

25 LCDR [REDACTED] Commander, that's all my questions.

1 CDR WADDINGTON: CDR Roy, do you have questions for this
2 witness?

3 CDR ROY: I just have a couple, sir.

4 BY CDR ROY:

5 Q. Mr. Edgar, I just have a couple follow-on questions. Going
6 to be jumping around, just kind of follow-up some of the things
7 we've -- you've already talked about today.

8 A. Yes, sir.

9 Q. In your discussions with the navy fire chief, did he ever
10 mention that there was already two other attempts -- that they
11 attempted twice and they boarded the vessel?

12 A. He addressed one attempt, one prior other -- one prior
13 attempt. Not two that I'm -- I don't recall him mentioning two.

14 Q. Did he ever discuss the fact that they tried to locate the
15 escape hatch either one or two times before that?

16 A. He briefly discussed one attempt, in my memory, and that was
17 the attempt that resulted in the watertight door between the
18 galley and engine room being opened.

19 Q. Were you ever aware that it was possible that the engine room
20 doors open twice before the mayday call -- or, once before the
21 mayday call, so twice?

22 A. That the engine room door was open twice?

23 Q. Yes.

24 A. No, I had never heard that.

25 Q. Was it ever discussed -- or, did the fire chief ever talk

1 about Navy -- excuse me, Norfolk Fire Department saying their
2 members weren't going to go back on board that vessel? Was that
3 ever a discussion that you remember hearing or having with
4 anybody?

5 A. No.

6 Q. You testified earlier about showing the Navy fire chief the
7 escape hatch and bringing him over to the vessel and showing him
8 on the plans. Did he ever say that he was shown that before,
9 anybody prior to you had shown him where that was and brought him
10 over and showed him the location, both in the fire plan and
11 physically?

12 A. He didn't say that, but I got the impression he knew that it
13 was behind the window I was pointing at.

14 Q. Did you describe, like, to him, like, what a hatch would look
15 like, what the firefighters should be looking for? Did you kind
16 of describe it in any way as far as, like, what they need to be
17 looking for on the vessel?

18 A. Briefly, that it would be a circular hatch and it was
19 properly flush deck, but it may be raised. And I didn't know if
20 it had an internal T handle or not. That's not apparent from the
21 drawing. I didn't know. But I -- we discussed it had an internal
22 T handle, it would be in the center of the hatch itself. If not,
23 it'd would be somewhere on the bulkhead -- mounted on the bulkhead
24 to reach that. But he would -- even if he couldn't find that, you
25 know, we could use a, you know, one-inch socket driver. They fit

1 those very well.

2 Q. You mentioned earlier in your testimony about you fought a
3 lot of fires. You've had a lot of experience. Would it have
4 changed your description to the fire chief if you knew that there
5 was a piece of carpet over that hatch that made it different as
6 how you explained it to him?

7 A. No. One of the things I did discuss is, because the vessel
8 had been on fire, she was leaning to port, don't be surprised if
9 there's debris and other things around it.

10 Q. Again, part of your testimony, you mentioned seeing a lot of
11 foam on the water. Did you ever see any sheen or sludge or any
12 film from the firefighting efforts? Like, did you see sheen,
13 sludge, emulsion, anything that would indicate pollution?

14 A. I saw particulate matter, but I did not see a sheen.

15 Q. You said earlier about your interaction with SERT and they
16 had agreed with your stability as far as the vessel was stable.
17 How was that conveyed? Was that a phone call? Was it in writing?
18 And who did you speak to that agreed with the fact that the vessel
19 was stable?

20 Q. I only -- in this case, I was only speaking to the duty
21 officer/duty officers. Once they started getting into it, a
22 second officer came on board. He was a lieutenant commander, I
23 believe. I did not speak to Andy Lawrence about it. Our
24 conversations were email and phone call, primarily. And as I said
25 before, you know, any reporting that SERT does back to the sector

1 is going to go through their chain of command, but the informal
2 liaison continued at our level. So, when they said that our
3 calculations looked good, you know, if they wanted to pass that on
4 to the sector, they would do it via the sector, not via me.

5 Q. That was in writing or was it verbal conversation that
6 they --

7 A. That's verbal. So, our understanding -- and we've done -- we
8 do this on most jobs that we're on where SERT's involved. As I
9 indicated, the relationship is good, and it's not broken and we
10 don't plan on fixing it.

11 Q. No, I understand. Thank you, sir. The Exhibit 67, which was
12 the exhibit that you saw, referenced the vessel actually when it
13 was leaning hard port. What was -- what would be your evaluation
14 of this vessel? Is it in danger of capsizing? Is it -- as far as
15 stability goes? And what would your evaluation be if you saw this
16 and in the dramatic shift it took during the night?

17 A. The shift is obviously added weight because the amount of
18 trim and heel, not a shift in weight. So, where did the added
19 weight come from? In order to make a true evaluation, I would've
20 loved to have been out on the dock and look at the period of roll
21 or do a real quick calculation. And the result is they had to do
22 neither because, as I indicated, as soon as they engaged the
23 pumps, she started coming up. By the time I got in, in the
24 morning, she was way up.

25 Q. Based on your professional opinion, would you be concerned

1 about this -- you know, looking at this picture. Was that a
2 concern to you?

3 A. Just looking at the picture? Yeah, a little bit of a
4 concern. Knowing what the guys were doing out on board and
5 knowing the vessel? Okay. Where did the water go to cause that?
6 Where did it come from? And like I said, the first thing is, once
7 they got the pumps engaged, she started coming up immediately.
8 That tells you, you don't have a lot of ingress of water
9 continuing. So, that's a relief. So, again, there did not appear
10 to be any total loss of stability on the vessel. If it continued,
11 left unattended, if the pumps hadn't have been turned on, that
12 would've been another story in itself.

13 Q. All right. Thank you, sir.

14 CDR. ROY: That's all the questions I have.

15 CDR WADDINGTON: NTSB, do you have any questions of this
16 witness?

17 MR. KARR: Thank you, Commander.

18 BY MR. KARR:

19 Q. Mr. Edgar, I'm Mike Karr with the NTSB. And, you know, as
20 investigators, we're looking at the facts and we may come up with
21 some recommendations. And so, it took a long time for the
22 firefighting operations to begin after the stability was assessed.
23 So, let me delve more into your -- to the period of roll formula
24 that you were using. So, let me ask you some questions and then
25 maybe that'll lead into a discussion of the process that you would

1 use to assess, you know, the risk of the vessel capsizing. So,
2 this period of roll formula, did you use a calculator? Is it in
3 your head, in your notebook? Did you calculate it?

4 A. I carry a little cheap Texas Instrument calculator. It's
5 calculated in my notebook.

6 Q. All right. And what's the key result that you look for to
7 tell you that the vessel -- you know, the risk of capsizing? You
8 know, I'm looking at the process, so nothing specific to what we
9 did this -- that happened during the event.

10 A. You're looking at a measure of GM. So, (audio skips) we're
11 familiar with GM. All right. So, a one-foot GM in the case of
12 the *Spirit of Norfolk* would probably end up in a roll period
13 somewhere in the neighborhood about 15, 16, 17 seconds, something
14 like that.

15 Q. But the -- so, your result of positive GM, the more positive
16 the GM, the less the risk of capsizing or am I --

17 A. Yeah. The more stability you have.

18 Q. -- expressing that correctly?

19 A. There's always other factors but, yes, the higher the GM, the
20 more stable the vessel is generally, yes.

21 Q. All right. And as an event would unfold, how often would you
22 calculate this period of roll formula? Can I just ask -- could
23 you, for the public, talk about what GM means?

24 A. It's a measure between the center of gravity of the vessel,
25 the vertical center of gravity, and the metacentric height. And

1 if you wish, as a vessel heels and rolls back and forth, it's
2 actually on a radius, and the center of that radius of small
3 angles is the metacentric height, which is the M. The G is the
4 center of gravity. And these are generally always measured from
5 the baseline, or keel, of the vessel.

6 Q. Thank you for that. Thank you for explaining that. So, is
7 an event similar to this, the concern is the risk of the vessel
8 capsizing and we want to add more -- you know, we may want to add
9 more firefighting water. So, how would you, using this period of
10 roll formula, continually provide feedback to the Coast Guard, to
11 the firefighters and let them know that, okay, we can still put
12 water on board the vessel?

13 A. All right. The fact that we had a positive GM of such
14 magnitude as -- what'd they calculate? 4.9 feet. And actually,
15 it was more than that. That's a lot of GM, even for a normal
16 sailing vessel. There's a lot of vessels out there that wish they
17 had 4.9 feet of GM. So, that's one indication. How often would I
18 do it? In this case, I only needed to do it once because --

19 Q. Well, here, let me --

20 A. Go ahead.

21 Q. Let me rephrase the question. So, you know, let's say I'm
22 the captain of the port. I'm worried about the risk of vessel
23 capsizing. So, a half hour later, I know more water has been on
24 board, obviously, so the conditions have changed. So, I'm going
25 to look to you to tell me that -- you know, what's the risk of,

1 what's the risk of capsizing? And you would tell me?

2 A. If it changed, look at your drafts, look how much free board
3 you got. And in our case here, we had -- generally had 2, 2.5,
4 3 feet of free board at the port corner. Time the period of roll.
5 If you time, the period of roll, you can calculate or estimate
6 very closely the GM of the vessel. All right. If it changes, do
7 it again. Retime it. And one of the things -- and I hate to say
8 this, use this word, but assumption. In order to do this, you
9 have to assume a radius of gyration. And that is -- basically,
10 can be modeled or calculated, but there's rules of thumb that
11 relate the roll radius to the beam of the vessel. And it's
12 generally between .35 and .4 of the beam.

13 There's several papers on that. If you're familiar with the
14 BMT Shipmo seakeeping product, they use that range. GHS and the
15 new seakeeping, I'm not exactly sure what it is, but it's within
16 that range. So, that's a pretty good industry standard.
17 Someplace between 0.35 and 0.4 of the beam of the vessel will give
18 you that roll rate. And once you have that, it's just a matter of
19 going out and timing the period of roll. And you don't want to do
20 it once, you want to do it several times, so that you got a
21 reasonable average.

22 Q. All right. Well, Mr. Edgar, I did not want to get into all
23 the details of the formula, but what I'm looking at is, you know,
24 having that, you know, could we trust the formula to use it to
25 regularly stay on top of how much -- you know, the condition of

1 the vessel, so that you -- someone, you know -- the salvage expert
2 on scene could positively tell the captain of the port or other
3 incident commanders that, yes, you know, here's my assessment of
4 the risk of capsizing?

5 A. I think that's safe that they could do that. And I would
6 think that it could be checked by the marine inspectors because
7 this formula is used by the marine inspectors in their -- when
8 they look at an inclining experiment.

9 Q. Is there -- kind of related. Is there a Coast Guard standard
10 operating procedure that describes your role or the role of people
11 in providing stability information, how that process works? You
12 know, the interaction with the SERT?

13 A. I don't think there's a Coast Guard standard. I think the
14 major salvage companies in the United States realize that SERT is
15 a very valuable tool for the Coast Guard and that those of us that
16 are doing the engineering need to, you know, have a good
17 relationship with them and liaise through them. Again, the young
18 folks who are up there may not have a lot of field experience, but
19 they're bright. They're brilliant.

20 And if the relationship is good, you know, hey, we got a
21 question about X, Y, Z, which is a hint to you that you need to go
22 back and take a look and see what X, Y, Z -- is going on with
23 that. So, as long as the relationship is good, again, you know,
24 let's not muck it up with a lot of administrative procedures.

25 Q. All right. Thank you, Mr. Edgar.

1 CDR WADDINGTON: Bay Diesel, do you have any questions of
2 this witness?

3 MR. ABEL: No, sir.

4 CDR WADDINGTON: City Cruises? Do you have any questions of
5 this witness?

6 MR. DENLEY: I do, Commander. Just a couple.

7 BY MR. DENLEY:

8 Q. Good afternoon, Mr. Edgar. It's nice to see you again and I
9 appreciate the opportunity to ask you a couple questions.

10 A. Last time I saw you, you were on my computer.

11 Q. That's right. So, just kind of going back to the date of the
12 incident, when you arrived, from your perspective, who was in
13 charge?

14 A. I put it -- I was asked that question before and I said that
15 it was busy on the dock. Because I've got experience inside
16 incident command as a firefighter and as a salver, and this was a
17 fire event, I'm going to the most senior firefighter I can find.

18 Q. Yeah. I guess that was going to be my next question. In
19 your mind, who should've been in charge and why?

20 A. Well, certainly the senior fire officer on the fire field
21 should be in charge of the fire. I can't see getting around that.
22 I think that's the way it should be. And I'm not a professional
23 witness and I am not going to become one, so -- but as a salver
24 and a firefighter, senior fire person, he's the heavy, he's the
25 guy that's in charge -- or, gal that's in charge.

1 Q. Kind of going to the plan that was being developed by the two
2 fire chiefs that you were maybe -- I don't know if you were a
3 party to it, but you heard or you certainly were there when the
4 plan was being discussed. Do you know what that plan was for
5 that -- the plan was that that was being developed and discussed
6 by the two fire chiefs?

7 A. I don't think there was two fire chiefs there at the time.

8 Q. Okay.

9 A. I think this was purely a Norfolk Naval Base planning event,
10 toolbox talk, if you wish, skull session, and they were well into
11 the discussion when I got there. They actually stepped back and
12 repeated some things. And as I indicated before, from us that we
13 used toolbox talks, it was a very good toolbox talk because there
14 was a lot of interaction between, you know, the fire officers and
15 some of the periphery of people. And there didn't seem to be any
16 reluctance to question or input. It was a healthy effort that was
17 ongoing at that time.

18 And for my benefit, they kind of repeated some of the things
19 that they wanted to do. And then when I offered help and said,
20 this is basically the only thing that I got here to help you with,
21 they accepted that. The only question that they presented
22 directly to me was the location of the escape trunk and a few
23 details regarding the escape trunk.

24 Q. And did you answer --

25 A. And one other thing. They wanted to know if I wanted our

1 pump installed at that time. We didn't want it to burn up. We'll
2 just leave it where it is.

3 Q. So, what was the plan? What were the firefighters talking
4 about?

5 A. I've outlined it -- excuse me -- I've outlined it on page 3
6 of my notes. They planned on going into the escape trunk with a
7 cellar nozzle. And it was a 2.5-inch cellar nozzle, so that flows
8 roughly 250 gallons a minute. And it's a great tool because it
9 expands the foam well. Going through there, they talked about the
10 location of the escape trunk and where it was.

11 The tugs are good to go. They were doing a good job and they
12 continued a cooling stand by, and in the case of re-flash, they
13 would be there to knock down anything. I'd offered up two
14 swimmers on the boat. They thought that was good for safety wise.
15 Asked about the stability. I said it's not lolling and there's
16 free board. Good that they acknowledged that they were going to
17 control the flow of the water going on the vessel with the foam
18 from the pier and regressing a little bit.

19 The City of Chesapeake was present because they were the ones
20 that had the foam system. He indicated he was going to use to two
21 teams, two firefighting teams: one to back up the first one, one
22 was just going to carry the 2.5 inch. The other one was going to
23 be back up to it. They estimated at the time to do this whole
24 evolution was going to be about 15 minutes. Asked me about the
25 pumps. I told him not to put them in there. Please don't do

1 that. And he said, you know, they were going to minimize the
2 water flow, make some foam for a few minutes, shut it off, see
3 what the result was in the fire. And I said, great. Knowing
4 cellar nozzles, I said, you're going to get a lot of foam in
5 there. And Les Williams used to mentor me and cellar nozzles, as
6 he would say, put foam into a space, you know, butt deep to a tall
7 giraffe. And that's what they expected.

8 And again, controlling it from the pier and that he
9 appreciated for me to monitor the drafts and the roll stability of
10 the vessel. And if he needed coordination with the -- because we
11 weren't going to be far apart located. If he needed coordination
12 with the pilots and he couldn't raise him, that he'd yell at me to
13 get the tugs on phone and get the pilots on the radio.

14 Q. And about -- well, you said that they asked you some
15 questions. Do you feel like you provided the information that the
16 fire chief was requesting from you?

17 A. I do. Again, like I said, this was a great toolbox. It was
18 give and take and it was about to break up when the captain of the
19 port arrived.

20 Q. So, after this discussion is when you had the conversation
21 with the captain of the port and she directed that the
22 firefighting operations cease. Is that correct?

23 A. Yes.

24 Q. Okay. And you also indicated that she made a comment about
25 the vessel being a total constructive loss. Is that in the same

1 conversation?

2 A. By that time, we had drifted a few feet away. I kind of
3 backed away from the back of the van a little bit. And, yes, we'd
4 moved maybe five, six feet away from the stern of the van. And it
5 was during that initial conversation, the first one.

6 Q. In your experience, is that the Coast Guard's job to direct
7 firefighting operations?

8 A. No.

9 Q. In your experience, is it the Coast Guard's job to make a
10 determination about whether a private commercial vessel's a total
11 constructive loss?

12 A. No, that's not any of the purview of any of the responders,
13 including the Coast Guard.

14 Q. In your experience, is it normal for firefighters to develop
15 written plans and forward those plans back to their staffs for
16 review prior to taking firefighting action?

17 A. I've only been on board a couple fires and they've been cold
18 ship fires, and you can't say that there are fires. They're
19 thermal events, if you wish, where there's been a
20 written -- written plans put forward. And very unique situations.

21 Q. I believe you said you've been involved in was it
22 30 commercial fires?

23 A. Thirty-five or so, maybe 40.

24 Q. And I believe you made a comment, too, that this was maybe
25 the least complex or the --

1 A. It was certainly the smallest vessel that we -- I've been on.

2 Q. In your opinion, when was the unified command established?

3 A. During the 2000/2022 meeting.

4 Q. You also indicated that when you performed your stability
5 calculations and developed a GM, you indicated that it was a very
6 good GM, meaning the vessel had very -- well, the vessel had good
7 stability. Is that fair?

8 A. Yes, sir. If I remember correctly, in its undamaged free-
9 floating condition, the GM was upwards of 10 feet. All right.
10 And during the back of the envelope calculation, we're at
11 4.9 feet. And during the formal calculations, based on the amount
12 of water that was in the vessel at the time of the -- right after
13 the 2000 UC meeting, an excess of five feet of GM. And again, the
14 righting energy was almost 10-foot degrees.

15 Q. So, I believe you said that there were a lot of vessels sort
16 of navigating out there that wished they had a GM of 4.9 or 5. Is
17 that a fair assessment of your testimony?

18 A. Yes, sir. We've got a couple at Donjon.

19 Q. And so, it's also a fair assessment that before the fire and
20 before -- so, when the *Spirit of Norfolk* was operating in its
21 normal, you know, operating environment, it had good stability.

22 A. Yes. And, of course, something as a cruise ship, that's
23 something you want. You don't want your folks out there on the
24 dance floor slipping and sliding.

25 Q. Finally, I'm just going to ask you a series of questions kind

1 of about the salvage operations. And so, is it safe to say that
2 when you were performing your salvage calculations and performing
3 calculations related to stability, you were doing that work in
4 furtherance of salvaging the vessel and returning it to its owners
5 in a port where they could safely take possession of it. Is that
6 correct?

7 A. Yes, sir. The goal and objective and always was to de-water
8 the vessel.

9 Q. And then is it safe to say that when you were -- when you and
10 your teams were involved with in supervising and conducting fire
11 overhaul efforts, you were doing that in furtherance of your
12 efforts to salvage the vessel and return it back to its owners and
13 in a port where they can safely receive it?

14 A. Yes. That is true.

15 Q. Similar question related to de-watering. So, all of the
16 efforts that you and your teams did in relation to de-watering,
17 including removing firefighting water from the vessel, placing it
18 on barges, that was in furtherance of your role and salvaging the
19 vessel and returning it to its owners in a port where the owners
20 could safely receive it?

21 A. Yes, sir. And, of course, we will add in the de-watering
22 just like we saw in the evening on June 9th to save the vessel.
23 If left unattended, that vessel probably would've sunk.

24 Q. And then, finally, your role involved with the towing plan
25 and dive operations were directly related and in furtherance of

1 your job to salvage the vessel and return it to its owners and a
2 berth where they could safely receive it?

3 A. Yes, sir.

4 Q. Okay. I have no further questions. Thank you.

5 CDR WADDINGTON: LCDR [REDACTED] do you have any follow-up
6 questions?

7 LCDR [REDACTED] I just have a few, Commander.

8 BY LCDR [REDACTED]

9 Q. Mr. Edgar, can we clarify, you had mentioned fire chiefs.
10 You were speaking with the fire chiefs. Were you speaking with
11 fire chiefs or were you speaking with the fire department incident
12 commanders?

13 A. I was speaking with the fire chief from Norfolk and I believe
14 there was the -- Chesapeake had somebody there. I don't know if
15 he was a fire chief, but he was involved. And there was two other
16 fire officers that were in white polos that said Norfolk Fire Base
17 on them. Whether they were chiefs, captains, battalion leaders, I
18 don't know. But definitely the man who continued to represent
19 himself and had fire chief on his shirt was the principal point of
20 contact.

21 Q. So, they didn't have the incident commander vest that we had
22 seen in the picture?

23 A. They had vests on, but they were lightweight vest that you
24 could very easily see their identification.

25 Q. Okay. Would firefighting efforts that you had discussed the

1 plan to go on board, firefighters in gear, foam, cooling from the
2 tugs, could that have decreased the GM?

3 A. Yes. When you add more water, it's going to change the
4 center of gravity. And so, you got to change in gravity and
5 metrocentric height is a function of the water plane of the
6 vessel. So, as the water -- if she trims or heels, the water
7 plane would change a little bit, so it could change the
8 metacenter, but not significantly over a short period of time.

9 Q. And were you doing calculations to base that opinion on as
10 well?

11 A. Say again?

12 Q. Were you doing calculations to account for if firefighting
13 efforts did happen how much that GM would change?

14 A. Never had the opportunity to, ma'am.

15 Q. Was GM calculated on June 9th -- the picture we saw where the
16 portside was in the water, was GM calculated that day as well?

17 A. Earlier in the day and then after the event. I was not
18 physically on the dock or present to see what was going on nor to
19 do the calculations. And in this situation, like I said, it was
20 dynamic. The pumps went on and the vessel started coming up. So,
21 Mr. Dorn was right and he took care of it.

22 LCDR [REDACTED] That's all I have.

23 CDR WADDINGTON: CDR Roy, do you have any follow up?

24 CDR ROY: I just have a couple of quick questions, sir.

25 BY CDR ROY:

1 Q. You were discussing with Mr. Denley, who was asking some
2 questions about the firefighting plan with the Navy Fire
3 Department about going back on, this would've been a third time,
4 and trying to find the hatch again, sticking a cellar nozzle down
5 and applying foam. Was there any discussion about how that
6 would've worked because the engine room door was open? Was that a
7 discussion you had?

8 A. To my knowledge, they only indicated that there was one other
9 attempt, just to be clear. As far as the engine room door being
10 open, there was no going down into the galley to go through the
11 engineering door -- room door because the water had probably been
12 about waist deep, so that that was out. There was obviously the
13 discussion of, well, the door is open. But there was no
14 discussion about going down that route. It was just all about
15 going to the escape trunk, putting the cellar nozzles in the
16 escape trunk.

17 Q. At that time, do you remember -- recall if the fire was still
18 in the engine room or had it spread to the galley at that point?

19 A. I can only surmise that it had spread to the galley because
20 the door was open. So, any fuel -- because we know there was
21 diesel fuel, lube oil -- had flown out into the galley when the
22 door was open. And certainly, if it was burning in the engine
23 room, there would now -- that fuel source would continue to
24 provide for the fire and that would now be spread out into the
25 galley.

1 Q. I'm just trying to picture in my head. So, the door's open,
2 fire, again, possibly could be in the galley. So, when an attempt
3 to stick a cellar nozzle into the engine room, based on your
4 training experience -- you know, you said you've got a lot of
5 firefighting experience, especially on ships -- what would that
6 have done to fight -- to combat the fire in the galley?

7 Q. Cellar nozzles are great for expanding foam. I don't know if
8 you're familiar with a cellar nozzle, but it looks like a
9 miniature one of these lights you used to see when you went roller
10 skating with all the little reflectors on it, but it's got a
11 multitude of nozzles.

12 So, when you put it in, it does two things. One, it's
13 sending out the foam water solution through each one of these
14 nozzles, which allows for expansion, but it also rotates.
15 So, it flings, if you wish, the foam water solution, so you get
16 further expansion when it -- that foam water solution strikes
17 things. So, as a result, you get a large amount of expansion.
18 And foam flows very well on top of water. So, if that door is
19 open, that foam was going to get into the galley relatively
20 quickly.

21 Q. And when the flow spreads, it covers low, correct? It
22 doesn't help if there's, like, say, like, a fire in the ceiling?

23 A. No. It takes the fuel source out. But by that time -- so,
24 you're not really knocking down. In this particular case, that
25 fire in the overhead would've been a Class Alpha combustible

1 material as opposed to a bulk fuel floating on top of the water.

2 Q. So, it'd be fair to say that the foam wouldn't have helped
3 fight a fire if it was up in the ceiling?

4 A. The cellar nozzle was not going to go down on the surface of
5 water. It's going to just go a few inches below the overhead.
6 So, it's going to spray up and knock some of that down as well,
7 too.

8 Q. But if it's in the engine room, it wouldn't have any effect
9 on the galley, correct?

10 A. It had minimal effect. But I'm certain if they got the fuel
11 bed covered with foam that there had been a significant
12 improvement in the fire situation.

13 Q. And just one last question about your conversation with
14 Captain Stockwell. Was it to cease firefighter operations that
15 she was talking about, or was it to cease having people go back on
16 to do an interior firefighting operation?

17 A. You'll have to ask her about that. I don't know. I
18 understood it to be to cease putting people -- do not put people
19 back on board. And at that point in time, I don't believe that
20 they were putting foam again back down into the vents, which is a
21 somewhat inefficient way of delivering foam. But I believe that
22 she permitted the firefighters to put foam back in the starboard
23 vents to the engine room in the galley.

24 Q. Thank you.

25 CDR WADDINGTON: NTSB?

1 BY MR. KARR:

2 Q. Mike Karr with the NTSB. Captain Edgar (sic), do you recall
3 what GM was for the -- 3:00 in the morning on the 8th, you
4 mentioned that --

5 A. I never calculated it at 3:00 in the morning, sir.

6 Q. Did someone else do it?

7 A. No, sir.

8 Q. All right. Thanks. And do you -- I'm wondering was there
9 any penetrations of the hull while the vessel was still ward at
10 Pier 4? Do you have any information indicates that water may have
11 entered the hull?

12 A. Yes, sir. We found one. It was, if I'm not mistaken, the
13 ports sea chest. There was a one-inch line coming off with a
14 flexible fitting that a valve -- that flexible fitting had either
15 burnt up, been removed. It was -- water was coming through that
16 area. Probably burned out. All other fittings we did not see
17 were leaking but, by the time we got the engine room completely
18 dry, the divers had already sealed three sea chests, both rudders,
19 both propellers, and the main engine over boards and a couple
20 other small over boards.

21 Q. All right. During the salvage operation, did you suspect
22 that there was water coming in from outside?

23 A. Yes. And it was -- I actually calculated it and we were
24 making about 45 gallons a minute or something like that at one
25 point. But it wasn't a lot.

1 Q. All right. Thank you, sir.

2 A. Yes, sir.

3 CDR WADDINGTON: Mr. Edgar, you are now released as a witness
4 at this formal hearing. Thank you for your testimony and your
5 cooperation. If I later determine that this team needs additional
6 information from you, I will contact you. If you have any
7 questions about this investigation, you may contact the
8 investigation recorder, LT [REDACTED] [REDACTED]

9 At this time, I'd like to make one administrative remark
10 regarding testimony opposed to Mr. Brown, Coast Guard standards
11 and regulations on Tuesday, January 31st, 2023, in response to a
12 question for Mr. Karr. Mr. Karr asked if either Mr. Brown or his
13 office had viewed the 2020 Coast Guard Authorization Act prior to
14 implementation.

15 After review of his files after his testimony, Mr. Brown has
16 amended his response to include the following: Although he did not
17 have the ability to view the potential authorization, neither he
18 nor his office provided any comment prior to the enacting of that
19 legislation. This change will be noted on the record. Thank you.

20 We will now move to brief closing comments from the NTSB and
21 Coast Guard. NTSB, do you have any brief comments?

22 MR. KARR: Yeah, thank you, Commander. I'd like to thank
23 Commander Waddington and the Coast Guard for including us in these
24 hearings and for their cooperation throughout this investigation.
25 I would also like to thank the parties for their support during

1 the past eight months that we've been working on this
2 investigation.

3 The NTSB is an independent federal agency. We're charged with
4 investigating transportation accidents. We've joined in this
5 hearing to avoid duplicating the development of facts, but we will
6 analyze the facts of this accident and determine a probable cause
7 in the independently of the Coast Guard. At a future date, a
8 separate report of the NTSB findings will be issued, which will
9 include our official determination of the probable cause of the
10 accident. We will develop findings, will conduct analysis, and
11 will issue recommendations based on all the facts developed
12 throughout this investigation. Thanks.

13 CDR WADDINGTON: Thank you, Mr. Karr. Today, the Coast Guard
14 and NTSB investigators will begin reviewing all of the facts of
15 this hearing and transition into the analysis phase of the
16 investigation. There is always a possibility that a short hearing
17 session may be convened if any new relevant witness is identified.
18 I believe we have gathered a significant amount of evidence to
19 consider that will guide our analysis. The formal investigation
20 team will continue to collect and review any further evidence that
21 is discovered as appropriate.

22 I'd like to take this opportunity to sincerely thank the
23 parties in interest, Captain Nadeau, Bay Diesel, and City Cruises.
24 Each party has participated in the comprehensive and exhaustive
25 process of this investigation. The commitment of their time and

1 resources has been instrumental in establishing relevant facts
2 that will guide our ultimate goal of making sound conclusions and
3 preventative recommendation.

4 I would also like to thank the City of Virginia Beach,
5 Virginia, for the use of this outstanding facility. Additionally,
6 other federal agencies, company representatives, and the local
7 maritime community have provided support to the monumental
8 endeavor that it takes to conduct this type of formal proceeding.
9 The collective expertise of those involved in this process has
10 been invaluable.

11 I am thankful that this incident was not more serious. It is
12 never desirable outcome to lose a passenger vessel; however, due
13 to the skilled and swift response of professional mariners, this
14 incident did not result in any loss of life, which is too often
15 the case. This type of incident provides the Coast Guard and NTSB
16 a valuable moment in time to take lessons learned and develop
17 preventative measures that may minimize the risk of future
18 incidents like this one from occurring in the future. Thank you
19 to everyone for attending these hearings, whether in -- person or
20 virtually. The time is 1:30. The hearing is adjourned.

21 (Whereupon, at 1:30 p.m., the interview was concluded.)
22
23
24
25

CERTIFICATE


This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FIRE ONBOARD *SPIRIT OF NORFOLK*
NEAR NORFOLK NAVAL STATION, VIRGINIA
ON JUNE 7, 2022
Interview of Jack Kenneth Edgar

ACCIDENT NO.: DCA22FM022

PLACE: Virginia Beach, Virginia

was held according to the record, and that this is the original,
complete, true and accurate transcript which has been transcribed
to the best of my skill and ability.



Danielle C. Morgan
Transcriber