

UNITED STATES OF AMERICA
UNITED STATES COAST GUARD

* In the matter of: *
* * * * *
* THE MARINE BOARD OF INVESTIGATION *
* FOR THE CAPSIZING OF THE *
* LIFTBOAT *SEACOR POWER* IN *
* THE GULF OF MEXICO ON APRIL 13, 2021 *
* * * * *

HOUMA, LOUISIANA

MONDAY
AUGUST 9, 2021

8:00 a.m. – 4:39 p.m.

APPEARANCES

U.S. Coast Guard

CAPTAIN TRACY PHILLIPS, Presiding Officer

MR. ANDREW LAWRENCE

MR. ERIC VERDIN

LT SHARYL PELS, Legal Counsel

LT ANTHONY ALGER, Recorder

PAC ELIZABETH BORDELON, Media Liaison

CWO4 LAWRENCE BLEVINS, Family Liaison

National Transportation Safety Board

MR. ANDREW EHLERS, Investigator in Charge

MR. MICHAEL KUCHARSKI

MR. MARCEL MUISE

Parties in Interest

MS. ANTONIA APPS, Esq.

MR. GARY HEMPHILL, Esq.

MR. PETER TOMPKINS, Esq.

Seacor Marine, LLC and Falcon Global Offshore, LLC

MR. CRAIG BURCH, Esq.

MR. BRIAN EISENHOWER, Esq.

American Bureau of Shipping (ABS)

MR. PAUL STERBCOW, Esq.

First Mate Bryan Mires

Also Present:

MR. HUGH SCHRATWIESER, Esq.

(on behalf of Mr. Phillip Grigsby)

LCDR JAMES DAUGHERTY, U.S. Coast Guard

(on behalf of CDR Vince Taylor, U.S. Coast Guard);

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PROCEEDINGS

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2
3 **CAPT Phillips:** The time is now 0800 on August 9th, 2021, this hearing is now in
4 session. Good morning ladies and gentlemen I'm Captain Tracy Phillips, United States
5 Coast Guard, Eighth District Chief of Prevention and the Chair of the Marine Board of
6 Investigation and the Presiding Officer over these proceedings. The Commandant of
7 the Coast Guard has convened this board under the authority of Title 46 United States
8 Code, Section 6301 and Title 46 Code of Federal Regulations Part 4. The board was
9 convened to investigate the circumstances surrounding the capsizing of the SEACOR
10 POWER with the loss of 13 lives on April 13th, 2021 while transiting the Gulf of Mexico.
11 Our investigation will determine the factors that contributed to the accident. This
12 hearing will examine a variety of different topics including the incident, the events
13 leading up to the incident, weather, the search and rescue efforts, the condition of the
14 vessel, the owner, the charterer and the regulatory scheme which applied to the vessel.
15 Once we identify what contributed to the incident then we will make recommendations in
16 order to prevent similar casualties from occurring in the future. This may include
17 recommendations for new laws or regulations. Our Marine Board will determine
18 whether there's evidence that any act of misconduct, inattention to duty, negligence or
19 willful violation of the law on the part of any licensed or certificated person contributed to
20 the casualty. The board will also determine whether there's evidence that any Coast
21 Guard personnel or any representative or employee of any other Government agency or
22 any other person caused or contributed to the casualty. Upon completion of the
23 investigation the Marine Board will submit its report of findings, conclusions and

1 recommendations to the Commandant of the United States Coast Guard. I will now
2 review the hearing rules for all participants and observes. First we would like to
3 minimize any disruptions to the board and to witnesses. Please remain silent during
4 questioning. Any talking or loud noises that are distracting to the board or the witness
5 will result in a recess. And the audience member engaged in the distracting behavior
6 will received one warning. Please do not enter and exit the hearing room during witness
7 testimony unless absolutely necessary. Second, silence all cellphones. Please exit the
8 hearing room to make or receive phone calls. Third, treat the witnesses and all other
9 participants with respect. The witnesses are appearing before the board to provide
10 valuable information that will assist this investigation. Please be courteous to the
11 witnesses and respect their right to privacy, both inside and outside the hearing room.
12 Fourth, all media interviews must be conducted outside of the hearing venue. The
13 members of the press are welcome to attend the hearing and an area has been set
14 aside for the press during the proceedings. The news media may interview hearing
15 attendees or witnesses if they are agreeable, but these interviews shall be conducted
16 outside of the hotel building. Any witness interviews shall be conducted after I have
17 released the witness from these proceedings. Finally, hearing attendees shall remain
18 masked at all times and shall comply with other posted COVID protection measures.
19 Hearing participants may remove their mask during questioning and testimony. Any
20 failure to follow the hearing rules will result in one warning. If an individual continues to
21 engage in the same behavior after receiving a warning, that individual will be removed.
22 Warnings or removal of audience members can cause significant delays in the
23 proceedings, so we ask for your cooperation in following these rules throughout this

1 important event. I will start off today by informing you of one change to the schedule.
2 Our first witness Mr. Phillip Grigsby of the National Weather Service was scheduled to
3 appear in person, unfortunately he will not be able to and so we've changed his
4 testimony to be virtual. This morning there are new counsel members sitting at the
5 party in interest table for the American Bureau of Shipping. I would like you to officially
6 announce and spell your name for the record please.

7 **Counsel:** Craig Burch, B-U-R-C-H.

8 **Counsel:** Brian Eisenhower, E-I-S-E-N-H-O-W-E-R.

9 **CAPT Phillips:** Thank you. The next item I would like to talk about today is regarding
10 the survivors from the SEACOR POWER. I understand that our designated family
11 liaison Chief Warrant Officer Blevins has received several questions from interested
12 parties regarding the fact that our schedule does not include testimony from each of the
13 six survivors of the SEACOR POWER capsizing. I would like to explain on the record
14 that the Coast Guard has extended the opportunity for each survivor to testify during
15 these proceedings. While the Coast Guard does have subpoena authority under Title
16 46 United States Code Section 6304 to compel witness testimony, I've chosen not to
17 exercise this authority for the survivors. Instead I've extended the opportunity for each
18 survivor to tell their story and testify at these proceedings without compelling them to do
19 so. As you've seen on the hearing schedule two of the six survivors have chosen to do
20 so. All six of the survivors in this case have previously been interviewed by the National
21 Transportation Safety Board. The Coast Guard and other parties to the National
22 Transportation Safety Board investigation did join those interviews and had the
23 opportunity to ask questions. These interview transcripts will become part of the official

1 record of this hearing as an Exhibit. For the benefit of the public I would like to take
2 some time this morning to read certain portions of these transcripts into the record. I
3 will start this morning with a portion of the transcript from the interview with Mr. Brandon
4 Aucoin. Mr. Aucoin was asked to recount what he remembers from the day of the
5 incident and I'll read what he said.

6 I remember I was in a room with another cargo employee named Zachary
7 Louviere. He went to sleep approximately around 1:30 in the afternoon. I went to sleep
8 approximately 2:30 in the afternoon, and when I woke up, the boat was already
9 capsizing. It was turning over. The sudden shift woke me up, and we hit the water.
10 When it hit the water, the locker that was in the room shifted violently to the other side of
11 the room and smashed a hole in the wall. Zachary and myself were able to move the
12 locker out of the way, and he was able to climb through the wall with a lifejacket. I was
13 too big to climb through the hole in the wall, but I, myself, grabbed a life jacket. I
14 grabbed a fire extinguisher in the room, climbed through his bed and smashed out the
15 window. I climbed out the window, and I have cuts -- some cuts on my hand from that.
16 I climbed around the side of the railing, and I met up with Zachary Louviere, Jay
17 Guevara (ph.), also of Cardinal Coil Tubing, and I'm assuming people who worked for
18 the boat, SEACOR, itself. I'm not sure. I know that we were holding onto the dock
19 railing and we kept getting pummeled by waves and rain. There was a big piece of
20 wood. I don't know what it was attached to, but it was floating in the water. The waves
21 were throwing it around and eventually it threw that piece of wood into my foot, injuring
22 my foot. Eventually, I was swept off the hand railing and onto the crane railing where I
23 tried to hold on, and I was trying to get back to the people I was just with, and I got

1 swept away again into the water, and that's the last I saw of them. I would surmise --
2 and this is just a guess on my part. I would guess I was in the water for 30 to 40 minutes
3 before what seemed like a crew boat found me. Mr. Aucoin was later asked if he had
4 any concerns with going out that day. And he answered, for me personally, no.
5 Later in the interview Mr. Aucoin was asked I'm kind of curious, what was your feeling
6 about your training? Did it help prepare you? I know there's no comparison to what you
7 actually experienced versus what you were trained, but having gone through the
8 training, what's your thought on that? He provided this following answer: Well, I feel
9 that training helped save my life. I really do. Once I was able to calm myself and
10 remember the training of being in the water, pulling in, trying to keep my body warm,
11 just trying to stay afloat, trying to keep my head above water. I know all of that
12 contributed.

13 I would now like to read a portion of the interview with Mr. James Gracien. He
14 provided some additional details so this will be a bit longer. But I think it's valuable for
15 everybody to hear. Mr. Gracien was asked, when you say get on the regular rotation,
16 so that was going to be as Master? And he provided the following answer: I mean, I'm
17 riding -- I'm riding a vessel as an extra Captain. Mr. Gracien was asked to recount what
18 he remembers from the day of the incident. And this was the narrative he provided. I
19 want to say it was around 2:30, 2:40, something like that, maybe 2:45. I want to say I
20 looked at my phone, and I saw that's around the time, you know. And I'm going to be up
21 on the tower at 6 o'clock. So I'm laying there, and it wasn't long I was laying there in the
22 bed, very shortly after I got in the bed. I was laying there, and I heard the motors -- he
23 had pulled back on the motors, you know, the engines. And I thought well, the

1 weather's got him or something. He can't see because it's raining and whatever and,
2 you know, he probably had to slow down because I did notice that we were near some
3 platforms. And when the squalls come up like that, a lot of times it takes the visibility
4 right away from you. So I figured he was slowing down. And I'm laying there, and then it
5 seemed like I want to say he was making a maneuver with the engines. It felt like he
6 was -- he put one in reverse and one in forward. And so I'm laying there, I said wow,
7 man. It feels like the boat's listing to starboard. And very quickly I said no, no, no, it's
8 not. And then all of a sudden I said yeah, it is. We're listing to starboard. I got out of
9 bed, and I stood up, and it flipped over. And as it was going over, I grabbed the top
10 bunk. I was facing the bunk. I grabbed the bunk, and I rode the boat over holding onto
11 the framework of the top bunk. And it was a tremendous crashing. I'm hanging there,
12 and I let loose. And my bags apparently, you know, they flew right down there by me.
13 They were on the water, wherever they were because it seemed like something got
14 ripped off the top of the ceiling in my room, and it was allowing some light to come in
15 which was good because I spotted my backpack. I had a flashlight in there. And I
16 grabbed it immediately and started looking around for my bag, my other bag that had
17 clothes in it. I thought I got to get dressed. I found my jeans. I put on a pair of jeans. I
18 found my work shirt. I put it on, and I buttoned it up and grabbed my slippers, and I put
19 them on. I didn't feel like I had time to lace up my boots. I didn't know where they were
20 anyway. But I thought of my slippers because they were right there with my clothes. And
21 I knew I had to get out of there, so I needed to have something on my feet. My first
22 thought was to break out the window of my room, and with my flashlight I located my
23 steel-toe boot, I grabbed it, and I slung it against that window. And it was like hitting

1 steel. It was just a thudding. It really wasn't something good to hammer on a window
2 with, and I wasn't in a position to try and kick it out. So I thought, maybe I should try to
3 open my door, and try and climb out that door and I was explaining to you I went out,
4 when I went out to go have those cigarettes, outside my cabin. So I opened my door,
5 and I flung it open. And the door -- you know, I tried to push the door, but I couldn't do it.
6 I couldn't open it. About that time, the doorway across from me opened up. It was the
7 company representative that was on board. His room was right across from me. And his
8 door flapped open, and it was Steve, and he says, what is happening? I said, we have
9 flipped. We need to try -- and I saw his window over there, and you know, I said, Steve,
10 we need to get out. We need to bust that window out. He went over there, and he's
11 trying to kick it out, and it's not doing anything. And so from where I was at I had to get
12 over to him I would have had to crawl over the hallway which was already filling up with
13 water. I mean, it was already up high, getting close to us, I'd say probably six feet from
14 getting to the room, you know. That's when I noticed that fire extinguisher that was
15 against the wall outside his doorway. And I said, Steve, I said, come over here. Come
16 over here. I reached over there, and I said, you hold onto it. I'm going to disconnect it. I
17 said, don't drop it. And he grabbed the nozzle, and I got -- I finagled that thing out of its
18 rack, and he got it. And I said, go start banging on that window. I'm coming over. So
19 that's when I started crawling over, you know, making sure I had a good handhold. I
20 crawled over in the other room with him, and he had already been beating on the
21 window, but it wasn't breaking. He was out of breath. So I took it. I started beating on
22 the window with it. And it wasn't doing nothing, and I ran out of breath. And then he
23 started beating on it again. He ran out of breath and that's -- when I got it again from

1 him the second time. I couldn't believe it. We couldn't believe it. We're hitting this thing
2 with a fire extinguisher, and it's not breaking. And you know, we were probably very,
3 very panicked, and I know that I was running out of breath very fast, trying to do this. I
4 thinking each time we try one more time and the third time, and when I did it that third
5 time, that's when it broke. And it shattered into a million pieces. And so I kicked it out. I
6 told Steve, I was breaking the glass out and everything. And I said, Steve, we need to
7 stay with the boat as long as possible. I said, we're not that far from port. You know,
8 they're coming, but we need to stay here as long as we can. And so we were both right
9 by the window, and I couldn't believe how rough it was outside, or anything else that
10 was happening, first of all. But it was really, really rough. And all of a sudden, a wave
11 came and hit that window and blew us both back at least six feet all the way to the dang
12 near end of that hallway. And at that point, that's when I knew I was getting out of that
13 vessel. We both scrambled up because we both got knocked back together at the
14 same time, and we both got up. And I said, Steve, I'm getting out of here. And he
15 handed me the lifejackets – we hadn't put our lifejackets on yet. I said – I grabbed -- he
16 handed me one. I grabbed it and put it on, and I said, put yours on. I said, I'm going.
17 And once I tightened it up, I tried to duck out that window. I put my leg out, and I
18 ducked my head out the window. That's when I hit the top of that glass and cut my
19 head. And I was bleeding all over the place. And that's when I went out the window.
20 And once I got out the window and was floating away, my legs got tangled up in some
21 rope. And so I reached down, I grabbed that rope, and I started seeing, what it was to.
22 And it was connected to a life ring, and it was all the way over in the corner of the cabin
23 in like a deck that I could see. I was thinking, man, I need to get that life ring. So I

1 started pulling myself over there to it. And the seas are so big and very, very big seas.
2 The closer I got to where the life ring was all tangled up to is a sling rack. I was like
3 man, I'm going to get myself killed over here, you know, getting, you know, smashed up
4 into the steel that was poking out of the sling rack, the slings and stuff. And so I just
5 said I abandoned that and let go of it. And I noticed that as soon as I let go I floated off,
6 and there was a firehose hanging from the fire station coming off the leg tower. It was
7 hanging down and I floated pretty much right by it. I grabbed it, and I hung onto that
8 thing. And I could see Steve. He was still in the window over there in his room with his
9 lifejacket on. And I'm hanging on for dear life this firehose it seemed like forever. I
10 mean, a long time I was holding on to this thing and getting thrashed around. And I
11 didn't want to get -- I didn't want to leave the vessel. You know, so I was trying to dig
12 around. And in between the time that I was holding on to that thing, I saw Steve finally
13 give it up and get out because the water now was pouring into the window. You know, it
14 was longer below it. The water was coming in the window. So off he went, and that's
15 the last I saw him. He floated off.

16 And I'm hanging there and hanging on and hanging on. And I noticed, you know,
17 somebody on the cabin over there. And I yelled out, Charlie. And it was Charlie. He
18 was like -- he said, hang on, Jim. And it was really hard to hear. I mean, that's the only
19 time I think I really screamed but I thought it was just him. Come to find out it was four
20 guys up there, I want to say I was told, either three or four. But anyway, while I'm out
21 there holding on to that hose, I had it wrapped around my legs and stuff like Tarzan. I
22 was just kind of going all over the place. And I was getting a lot of water in my mouth
23 and fuel. There was fuel in the water. So I hung on until I just didn't have any strength

1 anymore to hold on. I was completely done, and I let go, and I floated off. And as I'm
2 floating away from the vessel you could still see some of the white of the cabin and
3 everything but, not a whole lot. The wheelhouse was completely under water the whole
4 time. I was floating away, and the seas were big, and I'm bobbing up and down. And
5 very quickly I noticed, just real pieces of debris like, I don't know. I can't really say it was
6 anything in particular, but I'm just floating away and floating away and floating away.
7 And finally I'm looking around and I see platforms and stuff. And I'm thinking God, I wish
8 I could float into one of those, you know. And a board floated up. It was probably about
9 five feet long and about maybe that wide. It floated up, and I grabbed onto it and then
10 hung onto that. And some time went by. I don't know how long, but I saw a bed
11 mattress, and it was coming towards me. It was obviously saturated but still floating.
12 And so it got close enough to where I got it. Man, I got a hold of that mattress, and I let
13 go of that board. And I'm floating around, holding that thing and trying to hang on
14 because it was rough, and it was raining and hard rain. And I don't know how long I
15 floated around, probably a couple hours. I just – the waves, they just never seemed to
16 want to calm down. They were bobbing up and down, up and down. I'm looking around.
17 Finally I saw a crew boat, but he was a little bit far away, and they didn't see me. I lost
18 track of where they even went. I go well, they're out here looking. They're out here. So
19 again I don't know how much time was gone by and all things. But I spotted another
20 boat. It was a red hull boat, a big one, a big supply boat, one of those frac boats. But it
21 was way too far away. They were never going to see me. So every time I'd come up on
22 a big swell, I'd look around best I could. And I was starting to get cold now you know
23 what I mean. I was starting to shiver a little bit in the water. But I was thinking man, I'm

1 going to get found because there were boats out here, I just hope they find me. And so
2 I spotted a Swiss supply boat, and he was coming right towards me, but he was a good
3 ways away, and so I'm floating around and every time I come up and go down and
4 come up and go down, I'm looking, and there he is coming. He's coming right at me.
5 So when he started getting close enough to where I thought that he could see me, I
6 would -- well, back to when that mattress floated up, one of those little bitty lights that go
7 on your lifejacket, one of them floated by me. I grabbed it, so I had put it in my pocket. I
8 took it out of my pocket, and when that supply boat got closer I pushed myself up on
9 that mattress as best I could, and I waved that light. Then I'd go down into a swell, and I
10 couldn't see the boat. And then when I'd come up on a new swell, I'd push myself up on
11 that mattress and wave that light. I kept doing that. And you know, they got closer and
12 closer, and I kept doing it. And every time we'd come up on a swell, or come up on a
13 swell, I did that. And they got so close I seen a guy come out of the pilothouse door,
14 and he pointed right at me. And I knew I was going to get rescued. So they
15 maneuvered the boat over to me. They got close enough to throw a life ring out to me,
16 and I got a hold of it. And somebody jumped in, and he said, Man, we got you. And so
17 they pulled us into the boat, and the boat was huge. I was looking up at least 15 feet to
18 where they were standing it seemed like, bobbing up and down. Was like man, I hope
19 we don't end up getting knocked out, here at the last part of it, from the boat. But the
20 guy -- they pulled us -- they pulled me and the guy that was with me that jumped in
21 closer to the boat, and they threw over a Jacob's ladder. I was like man, fixing to get out
22 of here. I tried to crawl up. I didn't have the strength. Couldn't do it. I had zero strength.
23 So the guy that jumped in said throw him down a rope, and they knew what that meant -

1 - they knew – he knew, them guys up there knew. They threw a rope down, he got it up
2 underneath my arms, I hung on. I was hoping I wouldn't slip through, but I hung on with
3 everything I had. And they pulled me out. They pulled me up on the deck.

4 And as soon as I got on deck, I was on my hands and knees, and other guy climbed up
5 the Jacob's ladder. Come to find out he was the Chief Engineer.

6 Later in the interview Mr. Gracien was asked what other unique sounds do you
7 remember? Anything you can add to what you just told us if you think back? Anything
8 that sort of made you say I hear something else going on? Mr. Gracien responded: No.
9 It was very quick. I mean, like I said when I felt that feeling from a starboard list while I
10 was laying in the boat, within 15, 20 seconds, I said okay, yeah we're really listing. And I
11 stood up out of bed, and as I'm standing there, she flipped over. I mean, that fast, I
12 mean it was that's how it happened. And that crane that you see right there, when the
13 boat flipped over, I thought that thing was coming through my cabin. It sounded so loud,
14 I don't know what it tore off, you know, when it -- when the boat flipped, but maybe one
15 of the air conditioners or something up there that's welded onto the top right above my
16 cabin, that's what ripped a hole open in my ceiling and allowed me to be able to see a
17 little bit enough to find my backpack to grab my flashlight. So yeah, it was all very quick.
18 Mr. Gracien was asked, you've had a lot of lift boat experience, years and years. How
19 did this boat handle compared to other lift boats? Mr. Gracien responded, I thought she
20 handled very well. You know, it's a big boat, so everything's in slow motion, but she had
21 the power, you know? I mean, to move the vessel safely at any time except in high
22 winds, you know? I mean, generally them lift boats you don't move around in high winds
23 anyway because, they're not like a regular boat, but she handled good. The bow

1 thruster was very adequate in its power, and you could walk the vessel from port to
2 starboard -- so yeah I felt she handled very well. Mr. Gracien was then asked, were
3 you the Captain on the SEACOR POWER before they changed the legs? Were you the
4 captain on there at the time? He asked before they lengthened them? The response
5 was yes. He said yes. Then Mr. Gracien was asked did the vessel react any differently
6 when they lengthened the legs? Did it feel like it heeled more in winds? Did it handle
7 any differently? Did it feel any different? Mr. Gracien responded I don't think it did. I
8 really don't think it did. At the conclusion of his interview Mr. Gracien asked -- was
9 asked if he had any insight, or anything he'd like to add to the interview? Mr. Gracien
10 responded, not really. Just, you know, I mean it's three weeks ago to the day that it
11 happened, I was floating around somewhere three weeks ago out there, and it was a
12 rough deal but, it's kind of good that I just recently went through water survival. That
13 really kicked in and I stayed calm and got through it the best I could and if I could get
14 out.

15 Now I would like to read some excerpts from the interview with Mr. Zachary
16 Louviere. Mr. Louviere was asked to recount what he remembers from the incident. He
17 responded, he said I got up about 1 o'clock to just go outside and smoke, because we
18 were still traveling. And it was almost in the jetties like, right out the jetties. And I went
19 back in my room. And probably about, I don't know, 40 minutes almost -- like, right
20 around 2 o'clock -- right before 2 o'clock it started to rock left and right. And that's kind
21 of like whoa. Small waves right at the side hitting us. Like, we're riding over them, and
22 then there was one wave where I was in my bed and I felt it go over the balance point.
23 So I jumped up, went in a bed -- one with a window and watched it and just watched it

1 fall fast into the water. The lockers fell off the wall, the beds came apart. I mean,
2 mattresses everywhere. Climbed out of that, went to my locker to try to find a life jacket
3 but it wasn't in the life jacket. Apparently it was under the beds. But at this time I wasn't
4 trying to look for it. I figured, you know, there's life jackets outside. I'll get one when I get
5 outside. I didn't think about breaking a window to climb out because I thought I could
6 open the door. Well, the lockers had everything jammed up on the door. So I climbed in
7 the ceiling -- in the attic -- the little crawl space to the wall -- corner of the wall to the
8 hallway and looked down and the water was halfway through the boat already. So then I
9 opened up the door -- there was a door and there was an outside door. Opened up the
10 first door and locked it open. And then I opened -- I went up to open the top and there
11 was another guy -- one of the boat guys, I do not know his name. But he said -- he
12 worked with me on the deck before while we was loading the boats. He was taking all
13 the weights. Well, he opened the door. And once then I could see I could get out right
14 there I talked to my other guy in the room and told him I would try to break the window
15 and climb out the window to find a life jacket. So I hear him breaking it with the fire
16 extinguisher and I said let me know when you get out. So he hollers I'm out. So once he
17 got out then I climbed out the rest of the way. At this time, I'm just wearing jogging
18 pants and a pullover, a hoodie shirt. But when I open up my locker I had everything right
19 there. Looking for the life jacket there was my keys, wallet, phone, so I grabbed all that.
20 But now I just climbed out and there's multiple people right here on the side of the
21 building and it's completely at the top of the wheelhouse. And the other two levels were
22 completely submerged where the water levels right below the first living quarter area.
23 So we're standing right here and it was two of my guys -- a guy named Jay Guevara and

1 Brandon Aucoin. Brandon was in the room with me. And there was two boat-hands, I
2 didn't know their names. But I knew people by faces from just working with them on the
3 boat and it was the night cook. And I knew it was the night cook because when I was
4 eating lunch he asked me how long is this job going to take? And I told him probably
5 Sunday. So I was talking to him prior. Well, it was him, the night cook, two boat-hands,
6 and my two guys -- two of my guys and me. So six of us. Well, initially, I'd seen the
7 company man floating by in a life jacket. So he's moving around. So I have a boat-hand,
8 I say can you cut that water hose? So he cuts the water hose and we try fishing him
9 with the water hose, trying to pull him to the boat. Because at the time that's what I
10 thought that was the best thing to do. Get him to the boat -- some solid structure instead
11 of just floating in abyss, you know. Well, we couldn't reach him. When this boat gets
12 pulled out you'll see that the first level the water hose is still screwed in but it had been
13 cut. Then it starts getting rough, waves are crashing over, we're getting wet. We're
14 standing on this little stool, a square, long stool capped off because it's slippery with the
15 water and then diesel started pouring out the vent above us. So now we're slipping,
16 we're using the stool as a standing on. The water started -- the water gets lower so it
17 starts getting higher in the hallway. I'm just looking in the hallway every now and then to
18 see if somebody's came out of their rooms or floating in there, if they're alive or
19 something. But there's a life jacket in there. So I try fishing the life jacket out with the
20 water hose but it's caught on something. So the same boat-hand that cut -- that cut the
21 water hose, he cut the life jacket free from a bag it was hooked on. Somebody's work
22 bag. And I pull it up and it ends up being the strap that you strap it onto with. So now
23 I've got this life jacket just kind of -- I put it on around my neck and my other two guys

1 have life jackets. But the other three -- the boat-hands and the cook don't. So then the
2 water starts coming up a little higher and this stool that we were using -- this became a
3 battering ram because it started floating. I know they have reports saying it was 4:43
4 when the beacons went out and stuff, but it was earlier than that because we were not
5 on there a good while. So this bench starts floating and it hit one of my guys, Brandon. I
6 think it broke his ankle. I heard him say something, I was trying to pay attention to what
7 we was on -- what was going on because we're slipping and sliding on diesel. So me
8 and Jay take this bench and throw it over the boat in the water. Then it hits the crane
9 pedestal, this bench explodes, like somebody would throw it off of a truck going a
10 hundred miles an hour. So that made me decide I didn't want to get in the water
11 because I can't stop myself from getting busted up by this crane podium or dying in the
12 water. We were there for another 20 minutes and then a big wave hits and takes
13 Brandon into the water. We all talked about if we go in the water we're all going and
14 we'll stick together. But when it happened one of the guys -- Brandon goes into the
15 water and he goes through the, underneath the water and pops out and he's waving his
16 hands so he's fine. I looked behind him and there's a boat coming, a work grade -- a
17 gray work boat. So I'm figuring they're going to pick him up. And I'm watching as far as I
18 could until he was out of sight. And then that boat turns so that tells me they were going
19 to pick him up. And then right at -- I mean five minutes later here comes a Coast Guard
20 boat around the corner. So they deployed their little boat. And before they can get to us
21 everybody started climbing higher and higher. There's some exhaust stacks and an
22 engine room that was at the top. The two boat hands and the cook had climbed up to
23 where they got way up there and me and Jay were still on that first level. The water got

1 so low -- so high when I was standing in it waist deep. And it kind of -- the current was
2 pulling us and washed us into the water. And then we kind of washed back and I
3 grabbed the hand rail, pulled myself up, and I'm sitting on the sides of the hand rail like
4 you would use to go up to the first level. And I'm sitting there and Jay's trying to get up
5 and I see he's got a big gash on his forehead -- about an inch and a half all the way
6 across and he's struggling. So I pull him up by the life jacket -- I tried pulling his arm first
7 but everything's slippery with the diesel. So I pulled him by the life jacket. I pulled him
8 up and he wants to climb to the top. I can't climb when I don't have any shoes and I
9 keep slipping. I fell three times trying to move around. So he ends up getting up and
10 climbing all the way to the top with the boat-hand -- the two boat-hands and the cook.
11 At this time I still have the life jacket in my hands because I grabbed -- I caught it the
12 water and threw it on top of the hand rails and then I ended up hooking it on this pipe --
13 or this light fixture right by me. So if I needed it I have it but I can't really hook it because
14 every time a wave would hit it jerked me back. Jay gets up to the top and one of the
15 boat-hands -- the waves start getting worse and one of the boat-hands slips and falls.
16 And I caught him by his shirt and it tore his shirt. I don't remember his name. I knew him
17 because he worked with me on the deck, he was taking down the weights. But he gets
18 back in this little, it's a side wall but he's in this hole. I said man, I wouldn't -- if water
19 comes up I wouldn't stand there, you know, you get beat up. So he climbs up and
20 maybe an hour later -- 45 minutes later the waters getting lower because the boat's
21 sinking -- I mean the water is getting higher because the boat's sinking a little more. And
22 a wave hits and knocks my life jacket past me into the water behind me. So then when I
23 turned around and the wave hits me I got pulled off into the water. I'm underneath the

1 current under the water. I went to the handrails on this little podium that they used to
2 pick up the zodiac in and out the water. Get the pedestal, went around it, went through
3 the handrails and I caught the handrails that run on the base of the jack of the boat, the
4 bottom floor all the way around it. I hit that and then kind of floated up and went through
5 it, grabbed it. So when I popped up I didn't have a life jacket or nothing. There was
6 nothing close by to grab. So then when I turned -- probably about three football fields to
7 a quarter mile away was the Coast Guard boat. Now prior to that, Coast Guard had
8 backed out the little boat and tried to come to get close. But the whole boat was rocking
9 up and down, it was beating that little boat up. They couldn't really get on and I mean
10 there was really now where's to climb onto the boat to help out. So once I looked up --
11 when I came out the water and I looked up all four guys were still up there. And they
12 hollered and I just kind of like I'm good. I mean I'm not going to try to climb back on in
13 the waves. I could hear them and talk to them and then when I just turned around and
14 I just started swimming towards the Coast Guard boat. Probably about 30 to 45 minutes
15 to the boat in ten-foot seas, no life jacket, and then got there. They dropped a ladder
16 down and then I climbed up about three or four -- two or three steps and then they
17 pulled me up.

18 I would now like to read some of the interview of Mr. Charles Scallan. Mr.
19 Scallan was asked to recount what he remembers from the incident. Here's his recount.
20 After we finished loading up that job, we quickly went to bed, we lay down, we started
21 heading out. After that, we went out towards the jetty. That's when the weather got --
22 started getting bad quick. That's when everything started happening right there. I don't
23 have a whole lot as far as that. Up and down people were getting situated, trying to get

1 settled in as we were leaving out. I was in and out of the wheelhouse and I left the
2 wheelhouse and that's when the weather was getting -- it was getting pretty rough.
3 Somebody called, I don't know who, called and wanted to find out -- somebody called
4 about -- something about the water or something. Something about in a gallon --
5 pumping out water in a gallon. I'm not exactly sure y. He asked me to go down there
6 and check it out and see what was going on. So on the way down the weather had
7 gotten, I guess, really bad, and I heard noise on the first level. So I stuck my nose in the
8 first level to see what's going on there and the next thing you know, the boat's going
9 over. I heard Captain Dave say everyone grab a life jacket. And we were on the side,
10 kneeling over. Later in the interview Mr. Scallan was asked a series of questions
11 pertaining to the incident. I will note each question by saying question ahead of time, I
12 will note his answer by saying answer ahead of time. Question, the mate sent you
13 below, I understand, to check on some water? Do you know -- do you have any other
14 details on what the problem was? Answer, no I don't. Question, did he send you alone
15 down below? Answer, he asked me to go down there. That's all he asked me. I don't
16 know who else. Question, okay. And how far did you make it? Answer, first level.
17 Question, what happened when you were on the first deck after that? How did you get -
18 - what happened when you were there, and how did you get out? Answer, bad. I heard
19 a lot of noise so I opened the door to find out what was going on with the boat real
20 quick. And that's when I heard Captain Dave tell everyone to get life jackets -- everyone
21 grab life jackets. Then I was thrown into the room. And I got out of there and we was
22 going side -- it was on the side. It rolled over. Question, so you were in a state room
23 and then how did you get out from there? Answer, I crawled out of there. Question,

1 you crawled into the passageway? Or through a window? Answer, no, sir. Through a
2 passageway. Question, then how did you get out of the passageway to outside?
3 Answer, I put my feet into the ceiling and worked my way up. Question, that was up to
4 the door on the portside? Answer, yes. Question, so when you went through the two --
5 there's two doors, I understand, you have to go through. You made your way through
6 both those doors? Answer, no, sir. They were open by the time I got there. Question,
7 was there anybody else in that passageway? Answer, not in the passageway. They
8 were in a room and they managed to get the doors open. Question, do you know if
9 those were the two Cardinal hands? Answer, I don't know who they were. Question,
10 and then how did you guys get outside from there? Answer, the doors were already
11 open when I got there. I don't know. Question, once you got outside, where did you
12 wind up and who was with you? Answer, we was on the outside by the door. Mr. James
13 Wallingsford was there. He was the one that helped pull me out to the outside.
14 Question, do you remember anybody else that was out there with you? Answer, yeah
15 they -- I don't know their names. There were people out there. Question, you mentioned
16 your roommate Chaz, and you said he was on duty at that time. But was he on duty at
17 that time? Was he on tour with you? Answer, yes, sir. I think that's it. Question, and
18 where was he at this time? Answer, I don't know. Question, so when you're outside,
19 did you manage to grab a life jacket at any point? Answer, say that again? Question,
20 did you manage to grab a life jacket at any time during this time? A life jacket? Answer,
21 no, sir. Question, and I understand that you either fell off or slipped off into the water; is
22 that correct? Answer, yes. Once before and managed to get back. Question, and then

1 you fell off for the last time, or did you jump into the water? Answer, I don't remember. I
2 don't -- I just know I was in the water.

3 That concludes the information that we wanted to read from the interviews with the
4 survivors. At this time we're going to take a recess to get set up for our first virtual
5 testimony today. We will reconvene at 0855. The time is now 0843. This is hearing is
6 now in recess.

7 *The hearing recessed at 0843, 9 August 2021*

8 *The hearing was called to order at 0857, 9 August 2021.*

9 **CAPT Phillips:** The time is 0857, this hearing is now in session. We will now hear
10 testimony from Mr. Phillip Grigsby with the National Weather Service. Lieutenant Alger
11 can you please administer the oath.

12 **WIT:** Can you hear me?

13 **Recorder:** Yes, sir. Can you hear us?

14 **CAPT Phillips:** We'll take a short recess to get --

15 **WIT:** [in audible].

16 **CAPT Phillips:** Say that again.

17 **WIT:** [in audible]. I got a blue screen and it's not letting -----

18 **CAPT Phillips:** We're going to take a short recess to get our virtual witness set up.
19 This hearing, the time is 0859. This hearing is now in recess.

20 *The hearing recessed at 0859, 9 August 2021*

21 *The hearing was called to order at 0912, 9 August 2021.*

1 **CAPT Phillips:** The time is 0912, this hearing is now in session. We will now hear
2 testimony from Mr. Phillip Grigsby. Lieutenant Alger can you please administer the
3 oath.

4 **Recorder:** Good morning Mr. Grigsby. Could you please stand and raise your right
5 hand. A false statement given to an agency of the United States is punishable by a fine
6 and or imprisonment under 18 U.S. Code 1001. Knowing this do you solemnly swear
7 that the testimony you're about to give will be the truth, the whole truth and nothing but
8 the truth, so help you God?

9 **WIT:** I do.

10 **Recorder:** You can go ahead and have a seat. And Sir for the record if you could state
11 your full name and spell your last?

12 **WIT:** Okay. My name is Phillip Grigsby, and my last name is spelled G-R-I-G-S-B-Y.

13 **Recorder:** Thank you, sir. And if you could identify your counsel if present to confirm
14 representation.

15 **WIT:** It is Mr. Hugh Schratwieser I hope I said that right.

16 **Recorder:** And sir, if you could spell, sorry state your full name and spell your last
17 please, sir? Sir, it looks like you are still muted.

18 **CAPT Phillips:** We cannot hear you. Mr. Grigsby would you be willing to spell Mr.
19 Schratwieser's name for us?

20 **WIT:** Yeah, S-C-H-R-A-T-W-I-E-S-E-R.

21 **CAPT Phillips:** Thank you. Mr. Grigsby I'm going to ask you, I'm going to start off I
22 would like to ask you a couple background questions. Get to know some of your

1 background and where you work and what you've been doing. So could you start off by
2 telling us where you currently work?

3 **WIT:** Yeah I work at the weather forecast office, part of the National Weather Service
4 here in Slidell, Louisiana, it's the New Orleans, Baton Rouge area weather forecast
5 office.

6 **CAPT Phillips:** And how long have you worked there?

7 **WIT:** I have worked there since August 2004.

8 **CAPT Phillips:** And what is your title?

9 **WIT:** I am a lead forecaster.

10 **CAPT Phillips:** And what are the general, can you just tell us a little bit about what the
11 general responsibilities are associated with a lead forecaster?

12 **WIT:** Yeah. The lead forecaster is basically a shift supervisor. We are the ones that
13 are in charge of making sure that all the products go out in a timely and accurate
14 fashion. That includes any forecast products, any warning products, any climate
15 products. Basically any weather or meteorologically related products that we issue at
16 the office. I'm also in charge of making sure that the, you know staffing situation is
17 appropriate for whatever situation we're in. You know on regular or normal weather
18 days we typically have two to three people on staff. If we do have an inclement weather
19 event coming in then we'll increase staffing as appropriate and it depends on the level
20 of activity that we're expecting. And in addition obviously if there's anybody that calls in
21 sick or there's any type of injury or anything like that that occurs on the job it's my duty
22 to, A, make sure that position is filled, but also inform my immediate supervisor who is
23 the meteorologist in charge that if we have an incident or anything like that occurred.

1 Such as an injury or even say an argument or fight or anything like that, that might be
2 disruptive to operation or maybe in violation of any you know codes within the Federal
3 service. You know those are kind of the main duties as the shift supervisor. And then,
4 of course, I have my duties as well as a forecaster where I do have to myself issue
5 forecast [in audible] and stuff like that and as a part of the forecast team.

6 **CAPT Phillips:** Thank you. Can you just say the last two sentences, it was getting a
7 little fast there.

8 **WIT:** I'm sorry, I'm a fast talker, yeah sorry. Yeah like I said I have to make sure that,
9 you know if there's any type of incidents or if there's any injuries or any type of things
10 that violate anything that the supervisor would need to know I would forward those up to
11 him. Obviously like I said if there's an illness or if I have to have a vacant shift covered
12 it is my duty to make sure that shift is covered by calling somebody else in. We do have
13 supernumerary shifts those are on call and so we can task those people to come in.
14 You know the main goal there is I'm the shift supervisor I'm the one to make sure that
15 everything gets out, that we have the staffing in place and make sure that everything
16 goes smoothly as possible on the shift and if there are any issues that I'm the one that
17 would bring them up to my immediate supervisor.

18 **CAPT Phillips:** Thank you. What kind of training do you need to become a lead
19 forecaster?

20 **WIT:** So it's more actually based on experience. So I was actually, I just got promoted
21 to lead forecaster in January. And I've been what we call a general forecaster from the
22 time I started here in New Orleans in August 2004 until January. So you know there are
23 people who have less experience that become lead forecasters, some have had more.

1 Basically it depends on whenever you're ready to move up. You have to go through an
2 application process, interview process and all that. The training is really the same for all
3 meteorologists as far as meteorology goes, we all have our degrees, Bachelors or
4 Master's degrees. Some even have their doctorates, but most people are Bachelors or
5 Master's in the weather service. So we all have the same baseline of meteorological
6 knowledge. Then it's just experience in the field beyond that. Working systems and
7 also doing research, getting papers published and stuff like that. Working on projects in
8 the office. Those are all things that, you know the supervisor should look at for
9 somebody that wants to become a lead forecaster.

10 **CAPT Phillips:** Thank you. Before you started working at the office in Slidell did you
11 also work for the weather service before that?

12 **WIT:** That's correct. I was what we call a forecaster intern. It's kind of like the starting
13 position, or at least it was. The workloads changed a little bit since I started, but at that
14 time I started at the Atlanta office. And I worked there from March 2003 until August
15 2004. That's basically where I took my radar training course. Got my upper air,
16 basically the balloon that we launch in the air every day to get measurements of the
17 atmosphere. I got my certification in that, most of my certifications I got while I was in
18 that internship phase in Atlanta.

19 **CAPT Phillips:** Okay. What's the highest level of education that you completed?

20 **WIT:** I got my Bachelor's degree.

21 **CAPT Phillips:** Do you have any professional licenses or certificates?

22 **WIT:** Just the stuff that's in house. You know the radar certification saying that I'm a
23 certified radar operator, the upper air certification which is like hand launching a weather

1 balloon. And you know lots of other smaller certifications, I can't think of them all off the
2 top of my head. Those are kind of two of the two biggest ones. I know one that we
3 have to get is for aviation forecasting. We do have to get a certification for that. I do
4 have that as well.

5 **CAPT Phillips:** Great. I would like to ask you to give us kind of a broad big picture
6 overview of the services that the National Weather Service provides. Not too detailed,
7 but just, you know maybe in three or four or five sentences. A quick overview.

8 **WIT:** Okay. Yeah the National Weather Service, our main mission statement is
9 basically the protection of life and property. And we issue a full gambit of weather
10 products. We issue a public weather forecast, or a seven day weather forecast. We
11 issue fire weather forecasts, aviation forecasts and marine forecasts. We also issue
12 warnings for both land and our marine areas. And we also issue advisories and
13 statements for the various weather impacts such as for fog, high winds, and drought
14 statements. All the different types of things you think of. Basically any type of weather
15 product that goes out to the public more than likely it's coming from the weather service.

16 **CAPT Phillips:** Thank you. And does the New Orleans, Baton Rouge office provide all
17 of those services? Is there anything different about the New Orleans, Baton Rouge
18 office mission from the National Weather Service mission?

19 **WIT:** No there's no difference at all. We provide all the same services as every other
20 weather forecast office out there and we actually, because we are a marine office, we
21 do have the marine zone forecast and warnings and all the coastal offices we call it
22 have those. More interior office or inland office obviously don't have those products.

1 So in that case we actually do have a little bit of an extra workload as compared to
2 some of the inland offices.

3 **CAPT Phillips:** How big is the New Orleans, Baton Rouge office?

4 **WIT:** We have about 20 people on staff. We have 5 lead forecasters. We have 9
5 general forecasters. And we have our manager the meteorologist in charge. We also
6 have a science and operations officer. And a warning coordination meteorologist, those
7 are kind of like midlevel management people. We have an information and technology
8 officer. And then we have some electronic technicians that service our equipment.

9 **CAPT Phillips:** I didn't hear. What was the total number?

10 **WIT:** It's around 20 people all together.

11 **CAPT Phillips:** And what is the geographical area that the New Orleans, Baton Rouge
12 office covers?

13 **WIT:** Yeah so our area stretches from the Atchafalaya River all the way to the
14 Mississippi, Alabama border just to the East of Pascagoula. It also extends all the way
15 North to McComb, Mississippi. And then extends 60 nautical miles offshore of the coast
16 of Louisiana and Mississippi. Between the Mississippi, Alabama line and the
17 Atchafalaya River.

18 **CAPT Phillips:** North to where you said?

19 **WIT:** To McComb, Mississippi.

20 **CAPT Phillips:** McComb. And out how far off shore? How many miles?

21 **WIT:** 60 nautical miles.

22 **CAPT Phillips:** Were you working in the New Orleans, Baton Rouge office on April
23 13th, 2021?

1 **WIT:** Yes I was.

2 **CAPT Phillips:** What were you assigned to do that day?

3 **WIT:** I was on what we would call a day shift or an I shift. And it was me and my
4 coworker Megan. We would be the two main people on. And then we also had our
5 service hydrologist in the office that day. And our science and operations officer were in
6 the office. So that was the staffing profile. We did have several people that were
7 actually on leave at the time so the staffing was a little tighter than normal as far as the
8 availability to call people in. But that's the people that were on staff that day.

9 **CAPT Phillips:** Okay.

10 **WIT:** We were also in COVID protocol so we couldn't have more than 5 people in the
11 office at any time.

12 **CAPT Phillips:** I'm sorry I didn't hear that.

13 **WIT:** So we were on COVID protocol at that time so we couldn't have more than 5
14 people in the office at any given time. At that time.

15 **CAPT Phillips:** Thank you. I would like to have you walk through what you remember
16 from that day starting in the morning when you arrived at the office all the way up
17 through when you left. And just give us as many details as you remember.

18 **WIT:** Yeah. I can absolutely do that. So I walked in, I got in about 7:45 to get my
19 briefing from the outgoing midnight shift. And they told me that the risk of severe
20 weather had increased across the area. It was a marginal risk of severe weather and it
21 had been raised to a slight risk of severe thunderstorms. And the main area that was
22 highlighted was generally from the Baton Rouge area extending to the Southeast across
23 to the across Metropolitan New Orleans and then into the coastal waters South of New

1 Orleans and West of the Mississippi River. And the marginal risk had been extended to
2 include areas along the Mississippi coast as well. The thunderstorms actually started
3 developing fairly quickly. As far as I recall I was already beginning to issue statements,
4 special weather statements for strong thunderstorms and some severe thunderstorm
5 warnings for hail as early as 9 O'clock in the morning. Especially in the Baton Rouge
6 Metropolitan area. And I had also done some analysis before the storms formed and
7 you could see this was a boundary that was in place extending basically from just East
8 of Baton Rouge down through the river Parishes if you're familiar with that term. And
9 across the, from across portions of Metropolitan New Orleans and down, basically right
10 along Plaquemines Parish and out across the mouth of the river. And there was a
11 pretty sharp gradient, or difference between temperature and humidity profiles on each
12 side of that boundary. It was very warm moist air prime for thunderstorm development
13 to the South and West of that boundary. So the areas basically from New Orleans and
14 Baton Rouge West and South. Areas to the East and North were much drier, much
15 more stable and were much less likely to see thunderstorm activity throughout the day.
16 So my main focus was really on stuff that was firing up there in Baton Rouge and stuff
17 that later fired just bit further to the South in the river parishes region through the
18 morning hours. And it was mostly a hail event during that time. But it transitioned right
19 around 11:30 to noon into more of a wind event. We had a what we call a, I don't want
20 to get too technical here but a bow echo that developed. Basically it's an area of
21 stronger wind that forms from a thunderstorm on the Northern side of Baton Rouge and
22 it started to follow that boundary down into Western portions of Saint Tammany Parish.
23 And we do have some wind damage reports from that and I had a severe thunderstorm

1 warning out for that system as it moved across portions of Saint Helena, Tangipahoa,
2 and Saint Tammany Parishes. That storm weakened as it began moving to that drier,
3 more stable air mass in portions of Saint Tammany Parish. But it left behind a broad
4 area of low pressure on the Northern side of the bow echo. The bow echo has two
5 areas of low pressure, there's one on the North and one on the South. The Southern
6 one weakened, but the Northern one stayed and I was keeping an eye on it and it
7 began to turn South over Lake Pontchartrain, basically following the boundary. And I
8 noticed, we have another radar that we use it's called the terminal Doppler radar that is
9 located next to Louis Armstrong New Orleans International Airport and it gives us a
10 really good look over Lake Pontchartrain. We have what we call a lower elevation cut
11 and I could see ducting occurring, that's a meteorological term. Basically you could see
12 where there was stronger winds from aloft that were beginning to work their way down
13 towards the surface. And so I put out a special marine warning for Lake Pontchartrain
14 for winds of Gale force or higher and I also put out a special weather statement for
15 Metropolitan New Orleans saying hey we're going to potentially see winds of around 50
16 miles per hour impact the city. And that is exactly what occurred. It begin to move in
17 and, it was interesting because as the low seem to be tapping into some stronger winds
18 aloft it begin to strengthen. It also fired off a line of stronger thunderstorms. Basically
19 from Marrero area West across the river Parishes. And that line started also push to the
20 South. And that line is the one that ultimately impacted the SEACOR site. So as the
21 low continued to strengthen over Metropolitan New Orleans, basically became
22 stationary over the West Bank by about say the 2 O'clock timeframe. It continued to
23 wrap this dryer air and this really strong what we call River Flow Jet down to the South.

1 And so you know in that 2 to 3 O'clock timeframe the storm began to, the line that was
2 over the river Parishes and the West Bank began to accelerate to the South. So I
3 started putting out statements for winds of you know 40 to 50 miles per hour still. That's
4 what I, those were the reports that I was getting you know for areas South in Lafourche
5 and Terrebone Parishes. And I also started to issue special marine warnings in that
6 timeframe, you know 1:30, 2:30 timeframe for the coastal waters there in Terrebone,
7 Lafourche, Jefferson Parish. Basically West of the river as I've seen this line of
8 thunderstorms push to the South. And it had become more of a wind issue. We hadn't
9 had any reports. Like I said I got one report of 43 knots from Galliano Airport as this
10 storm went through. I said okay it seems like everything is tracking along fine. And
11 then I updated my warning for the marine zones as my shift ended at 4 p.m. and as I
12 was briefing you know the oncoming shift. I said I'll get an updated warning out for you
13 guys. So I issued that shortly before my shift ended just extending the marine warning
14 in time and area to account for the storm as it was beginning to push off shore. We did
15 see an area of stronger winds as well further to the East over more towards Grand Isle.
16 So we did issue a severe thunderstorm warning specifically for Grand Isle itself for
17 winds of 50 knots in that area. Because there was some indication that there was some
18 wind in that area. But the caveat is when you're looking out that far, we're looking at
19 about 7 to 8000 feet off the ground with our radar at that time. So a lot of the stuff you
20 have to infer based off radar imaginary and you have to, and you're kind of relying on
21 observational data at that point and we have not have any reports of damage or any
22 reports of any severe wind until after my shift had come to an end. That's when I
23 became aware of it. So that's kind of the gist of everything there. That I can recall.

1 **CAPT Phillips:** Thank you very much. And you said your shifted ended about 4?

2 **WIT:** That's right. My shift ended at 4. And then the oncoming shift came on and took
3 over. And Megan did stay over a little bit to assist as well. She was my other coworker.
4 So she was the one, she agreed to go ahead and assist for a little bit longer you know
5 as they needed her.

6 **CAPT Phillips:** So if your shift ended at 4, what time would you say you left the office
7 that day?

8 **WIT:** I was out of the office by about 4:05.

9 **CAPT Phillips:** Okay. That was a lot of information. A lot of detail there. I'm going to
10 go back and -----

11 **WIT:** Yeah, sorry.

12 **CAPT Phillips:** That's good. That's what we need. I'm just going to go back though
13 and try to fill in and ask some additional questions.

14 **WIT:** Umm huh.

15 **CAPT Phillips:** So when you're doing a day shift like that what's your current, what's
16 your typical schedule?

17 **WIT:** So normally on just a regular day the first thing you do when walk in after you get
18 your brief from the outgoing shift is you sit down you start doing your own analysis of
19 the situation. You start looking at model data, your upper level data, your upper air data
20 basically, any radar data. Basically It's data accusation and going through figuring out
21 what the state of the atmosphere is. So that's usually about the first half an hour of my
22 shift just to kind see, you know put in place what the briefing from the outgoing shift said
23 and kind of get your own idea of what you may think is going to happen. And then at 9

1 O'clock we usually have a SITREP, an office wide SITREP. We just usually do it
2 through like a conference call since a lot of people are teleworking now. And just kind
3 of say this is the situation of day, this is what we expect and obviously before that if I
4 need to have people come in, like I said we had people that are on call, then I will give
5 them a heads up call before the SITREP. I will be like hey we're going to have to have
6 you come in. You know can you be in by X amount of time. Now fortunately staffing
7 that day like I said we had Jared, our SOO, and our service hydrologist Jen to assist.
8 So, but on a typical day after 9 O'clock the SITREP is done and then we get into
9 actually producing forecasts. The first forecast that we have to put out is the coastal
10 water forecast, that's our marine forecast product. And the times vary. In the winter
11 months it due by 9:30, in the summer months it's due by 10:30. And it's based all on
12 the change from, you know standard to daylight time, that's it. So in April obviously we
13 were working on the coastal water forecast and trying to get it out by 10:30. That's
14 where you're looking at and saying hey do we have any type of small craft advisory,
15 Gale warnings or that. Basically updating the status of the marine conditions out there,
16 what's the wind, what's the sea, what's the period going to be. Those are the main
17 things that we forecast in our marine waters. And then around 11 O'clock will start
18 working on aviation forecast. That has to be out by about noon in the winter months
19 and by 1 O'clock in the summer months. Technically 40 after the hour is when it really
20 needs to be done. So by 12:40 or 11:40. And then after that we begin to work on the
21 what we call our full forecast suite because we get an updated round of model data that
22 comes in, it's our 12Z data, 12 Zula data. And that's going, we'll the European model,
23 we'll have the GFS, we'll have the UK data, we'll have all these different model suites.

1 We'll also have ensembles. All those different data that we kind of start to pour over or
2 look at. So we'll do model analysis. Basically in that 1 to 2 O'clock timeframe. And
3 we'll collaborate with our neighbors, our neighboring offices in Mobile, Lake Charles,
4 and Jackson to kind of come to an agreement between all of the offices on what we
5 think the pattern is going to be like. And then we'll begin to produce our forecast. So
6 that process usually takes say, it's all ongoing basically between 1 and 3 O'clock we're
7 working on the full forecasting suite -----

8 **CAPT Phillips:** I'm going to stop you there. You're starting to get a little too fast. I'm
9 having trouble following you. So after -----

10 **WIT:** Okay, I'm sorry. I talk too fast.

11 **CAPT Phillips:** After the aviation forecast what's the forecast you work on next?

12 **WIT:** So after that then we work on the full forecast suite so that's going to be fire
13 weather, marine, public that go out. Those are all, they all have to be issued by 4:30
14 p.m. And so we'll work on all three of those and we'll look at all the new model data
15 that's coming in, you know in that, it's usually in, fully in by about 1 O'clock in the
16 afternoon. And then we'll collaborate with our neighboring offices, come to an
17 agreement and begin to actually produce the forecast. And we'll get all of that done,
18 and usually we have those forecasts out before you know the shift ends at 4 O'clock.
19 And we'll also work on what we call an area forecast discussion. At that time where we
20 put our thoughts onto paper what we think is happening meteorologically, why we're
21 forecasting what we're forecasting. And that's, we're usually all done by 4 O'clock so
22 then the oncoming shift is set up, you know the evening shift. They don't, they don't

1 have to worry about anything. Sometimes we'll have to stay over to 4:30 if there's a lot
2 of detailed forecast. A lot of uncertainty but that doesn't happen very often.

3 **CAPT Phillips:** Okay. And so it sounds like you do about an 8 hour shift. Is it three 8
4 hour shifts each day that the office has?

5 **WIT:** That's correct. Yep.

6 **CAPT Phillips:** How much sleep would you estimate that you got the night before this
7 watch?

8 **WIT:** I would say I got a good 7 to 8 hours of sleep, which is pretty normal.

9 **CAPT Phillips:** And when you arrived that day were there any problems with any of the
10 equipment in the office?

11 **WIT:** No. No equipment issues at all. Everything was running perfectly.

12 **CAPT Phillips:** Okay. And I think you said, at 9 O'clock every morning is the SITREP
13 call? When you talk about what you're expecting.

14 **WIT:** That's correct.

15 **CAPT Phillips:** Do you remember -----

16 **WIT:** That's right, yeah.

17 **CAPT Phillips:** Do you remember what was discussed?

18 **WIT:** Yeah, yeah. We just discussed potential for severe weather that day. You know
19 that there was a slight risk for severe weather across a portion of the area. And we had
20 adequate staffing since we did have Jared and Julie there as well, so we had four
21 people on. Basically double what our normal day time staffing is. At least during that
22 time with COVID protocols in place. So we felt secure that we had enough people in
23 place. I said I was going to be working radar that day. Megan would be doing the

1 forecast package. And then Jared would be serving as a meso analyst. Basically
2 taking a constant look at the atmosphere kind of giving me a heads up on where he was
3 seeing things possibly developing, where storms may develop in the future. And also
4 acquiring observation, observational reports from stations and from the public and stuff
5 like that. And then Julie was handling, we did have rivers in flood from previous rain
6 events. And so she was handling all of the hydrological aspects. She put out all the
7 river flood warnings. And she's a senior service hydrologist so typically on a day shift
8 she's there to do that anyway. It just depends on if there's anything in flood water or
9 not. If there's not anything in flood then she'll be teleworking. But that day she was in
10 because we had rivers in flood.

11 **CAPT Phillips:** Was anything that you discussed at that 9 O'clock phone call unusual?

12 **WIT:** No. It was a pretty normal phone call. It took about 5 minutes. Typically so I'll
13 talk about what we have going on and then the MIC will also wrap up the call and
14 discuss anything more on an office wide level, you know or any updates regionally or
15 nationally that he thinks are important to pass on that he hears from the regional
16 directors or national directors. And a lot of times, especially, I can't remember exactly
17 that day of course, but generally a lot of it had to deal with just you know COVID
18 updates and things like that at that time. If we were going to be moving into different
19 phases or anything. Which at that time we weren't, he said they were no changes. So
20 that's basically it. It's pretty short, pretty sweet, quick little just update. And the
21 electronic staff usually comes on and says if they have any equipment problems, things
22 they're working on. There were none that day. Everything was working properly.

1 **CAPT Phillips:** whose responsibility was it to decide where everybody was going to
2 work that day?

3 **WIT:** That's mine – that's one of the jobs of the lead forecaster and shift supervisor.
4 We put, we are the one that decide which desk or which area people are going to work
5 at. And I looked at who I had on my staff and I was like okay I think that these people
6 will be able to excel in these positons. Obviously I knew we had a service hydrologist,
7 her role was pretty much well defined with the river flooding aspect. With Megan she's
8 a newer forecaster, she's been in about 3 years. And I was like you know what I'm
9 going to have you do the forecast package today and you know she's really, really
10 strong with that. So I put her there. And Jared was very new. He had, he actually
11 started only 1 week beforehand. But I knew that he's a seasoned meteorologist, he's
12 been in the weather service for a very long time. And he's actually one level above me
13 and he had just come from New York. But meso analysis you can pretty much do
14 anywhere in the country if you're a good meteorologist [in audible] you're going to be
15 good at that. You know observational acquisition and stuff you can pretty much do that
16 from anywhere. So I was like that's where you'll succeed. I'm the most familiar with the
17 area as far as radar products of where impacts are most likely. So I went ahead and
18 stuck to the radar site.

19 **CAPT Phillips:** Okay. How far away is your phone right now? Is it close to you or is it
20 far away?

21 **WIT:** My phone? Right here.

22 **CAPT Phillips:** Can you try and put it just a little bit closer and let's see if that helps us.

23 **WIT:** Okay.

1 **CAPT Phillips:** Hearing.

2 **WIT:** Yeah. I can move my keyboard. So now it's literally right in front of me. It was
3 just off to the side, like a foot away or so. Is that much better now?

4 **CAPT Phillips:** Maybe halfway between where it was before and where it is now. Let's
5 try that.

6 **WIT:** Okay. How's that?

7 **CAPT Phillips:** Okay. That seems good. Thank you.

8 **WIT:** Alright.

9 **CAPT Phillips:** And when you had your morning discussion about the weather did you
10 personally have any concerns about the weather that day?

11 **WIT:** Oh yeah, absolutely. You know my, the outgoing shift he gave me a very detailed
12 briefing he was like you've got a situation it looks like there's potential for both hail and
13 high winds you know these severe thunderstorms that developed. So we basically were
14 rolling right immediately what we call our severe weather operations mode. Making
15 sure that everybody was ready to go and I immediately pulled up all of my radar
16 products that I typically use. You know two screens right in front of us. And all I had
17 pulled up was radar data, radar products with a couple of displays for just upper air
18 sounding which is the upper air profile to get an idea of how unstable the air mass was.
19 How likely it was to produce winds and some high resolution model data that would give
20 me an idea exactly probably where the storms were most likely to form initially. And so I
21 had those up, but pretty much everything else was radar data looking at different
22 elevation cuts, looking at velocity products, looking at hail products, rain fall products, all
23 – anything that you could think of. We have to have strong situational awareness

1 whenever we're working radar. Since you're typically looking at multiple different cells
2 at any given time. It's a pretty intense job. And radar updates every 1 to 2 minutes. So
3 it's a constant surveillance.

4 **CAPT Phillips:** Thank you. And I think at some point you said you started getting
5 some reports from the public that day. Can you tell us more about that?

6 **WIT:** Yeah. So we get reports from the public. We actually have like an online
7 reporting system on our website so we'll get those. Those were mostly hail reports that
8 we were getting over in the Baton Rouge area and then down through the river
9 Parishes. A lot of hail that was in the dime to a quarter size range. Which is actually
10 pretty decent hail for this area. And then we also got some social media, because we
11 do monitor Twitter and Facebook and Jared was doing that. So there were some
12 Tweets that came from the public and also from the broadcast media. Typically public
13 that related to the broadcast media but the broadcast media put it out on Twitter. You
14 know of damage, wind damage. Like the wind damage report we got from Tangipahoa
15 Parish was through social media. That was all on the North Shore and to the West of
16 Lake Pontchartrain. And then when basically what we like to call the wake low, the
17 infamous wake low, but that's what it was that formed over Metropolitan New Orleans
18 and then the resultant line of thunderstorms, the severe thunderstorms that kind of
19 pushed South associated with that system we started to get broadcast media reports. It
20 wasn't too much public from the wind damage that occurred in New Orleans where we
21 had some trees that were knocked over and stuff like that.

22 **CAPT Phillips:** Did you get any reports that day of anything South of the New Orleans
23 Metropolitan area?

1 **WIT:** We did not during my shift. Like I said, the strongest wind report that I saw and
2 that was actually from an automated sensor that is at the Galliano Airport was 43 knot
3 wind gust. And that was in the 3 O'clock timeframe. And then we started seeing
4 indications on the radar of stronger winds in the Grand Isle area that's why we put out a
5 severe thunderstorm warning out for the Island itself. But we had not gotten any reports
6 during my shift. You know of strong winds or wind damage. But it was right after my
7 shift ended that I was made aware that there was, I believe it was a 76 mile per hour
8 wind gust that was reported at another automated site in Grand Isle and there was
9 some damage that was from wind in Grand Isle. But that was after my shift ended that I
10 heard all of that.

11 **CAPT Phillips:** Okay. I know that you said there were not a lot of people available if
12 you needed extras. Did you feel like you had enough people to handle everything that
13 day?

14 **WIT:** Oh yeah absolutely we did. Four people was enough. You know and with Jared
15 there you know he's very strong radar wise as well. So anytime that I did need to take a
16 break, like I did need a break for lunch and obviously for personal use and he would
17 take over the radar at those times. Typically it was for only maybe 15 minutes. I think
18 he did that about three times. And I usually set him up, I would make sure that I had
19 products out already like if I had any statements or warnings I would get them out. I
20 was like okay. I think I got you set up nicely so keep an eye on things because I need
21 to eat or do other things. So he would do that. Then after about 10 or 15 minutes I
22 would come back and take over. Because you do need those breaks every once in a
23 while. But he was there so that was not a problem. And if it had become a larger event

1 where say it covered a much larger scale geographically like if we did have storms in
2 Mississippi on the coast over there or something, then we probably would have had to
3 have somebody else come in. You know I would have looked at that and tried to call in
4 either one of the other managers or somebody that was off duty or just have Jared take
5 over radar duties more and we just wouldn't have had as much meso analysis going on.
6 You know Julie may have been able to help out with some of the observational data,
7 she probably could have. Because most of the river flooding products are out typically
8 by midday. So in the afternoon she would have had a little more time on her hands as
9 well. In fact she was fielding phone calls for people more or less that afternoon. She
10 was kind of our phone person in the afternoon. She took all the public phone calls. We
11 have a lot of people that call if there's storms around, you know they get worried. And
12 so we try to reassure them, tell them the information, so they can take appropriate
13 action.

14 **CAPT Phillips:** Thank you.

15 **WIT:** Umm huh.

16 **CAPT Phillips:** You described a couple of meteorological terms. I just want to get a
17 brief description of those if you can, in just a couple of sentences for those folks who
18 might not be familiar with these types of things. You said the term bow echo.

19 **WIT:** Yeah. So a bow echo is a form of severe thunderstorm and basically it's a region
20 of very strong winds. What you'll have is winds descending down from aloft say from 5
21 to 10 thousand feet up and they're typically stronger winds up there. They'll start to
22 descend down on what we, I don't want to get too technical, but basically it descends
23 down as like a Jetstream towards the ground and that causes the leading edge of the

1 storm to literally bow out or push out ahead and it creates a region of strong winds on
2 the leading edge of that line of thunderstorms and you get, actually areas of low
3 pressure that form on the Northern and Southern side of that descending Jetstream as
4 well and that just helps to amplify and maintain that what we call rear inflow jet basically
5 into the storm. And high wind is going to be the concern with that. And that's what
6 happened on the North Shore and that is what hit Grand Isle and ultimately pushed
7 across the, you know the waters there West of the Mississippi River. And then – this is
8 a common severe weather event that we have both here and across the country.

9 **CAPT Phillips:** What was the last sentence, sorry?

10 **WIT:** I said it's a common severe weather event that you have both here and across
11 the country.

12 **CAPT Phillips:** So a bow echo is a normal thing to see in this area?

13 **WIT:** Yeah. We get those quite often, several times a year. You know typically a lot of
14 times they'll occur in the spring or the fall. Those are our peak severe weather seasons.
15 It's not unusual.

16 **CAPT Phillips:** I also hear you use the term wake low. Can you slowly – slowly give
17 us a brief description of that please?

18 **WIT:** I will try as slow as possible. Okay so a wake low actually forms behind, or in the
19 wake of a strong thunderstorm system and that could be a bow echo. It could be a
20 larger scale system as well. What we call, we call it a derecho. It's just a much broader
21 larger bow echo system. Those aren't as common here. Those happen more in the
22 Midwest. But we do get wake lows here behind these bow echos every once in a while.
23 Most of the time, basically what a wake low is, it's a broad midlevel, say in that like 5 to

1 10 thousand foot area of rotation or area of low pressure and it's a counter clockwise
2 rotation and obviously with low pressure that forms. And it can typically last for about 3
3 to 4 hours after a severe line of thunderstorms moves through. In our area we'll see it
4 maybe about 2 to 3 times a year. And typically they'll have a period of winds in that 30
5 to 40 knot range that occur with that. This wake low that we had on April 13th was very
6 unusual. It was much stronger and much longer lasting than what we typically see. We
7 had strong, you know 30, 40, even 50 knot winds that persisted across the area from
8 basically 3 O'clock in the afternoon until 3 O'clock in the morning. So it was almost a 12
9 hour event. We were seeing 60 mile per hour wind gusts, 50 knot wind gusts in
10 Waveland, Mississippi, with you know Southeast and an offshore wind at 7 p.m., that's
11 unheard of. And I know that we were having reports of you know 40 to 50 knot winds
12 continuing you know off shore of Louisiana at the Loop, Louisiana Offshore Oil Platform
13 as well all the way through you know 2 to 3 O'clock in the morning. So that was, this
14 was a very strong wake low. And there's actually – it's unusual and it's something that
15 we're doing an after action review on here even locally to figure out why that happened.
16 Why did this wake low stay in, you know stay in place for so much longer. And you
17 know we think that it contributed to the strengthening of the bow echo, and what made it
18 so strong as it began to push offshore of Louisiana. They had to work in tandem. So
19 we're still looking at that as far as research goes.

20 **CAPT Phillips:** Thank you that was very helpful. Earlier in this hearing we've heard
21 some testimony that indicates the winds near Port Fourchon that day were around 80
22 knots. And then we've also heard testimony about gusts up to 90, 100, or even 112 that
23 day. Does that surprise you?

1 **WIT:** A little bit but not entirely. You know obviously if there was an area where you
2 had really, really strong winds from aloft that were able to work their way down to the
3 surface you know on the leading edge of a bow and the fact that it was generally over
4 water so there's less frictional effect, it's not entirely surprising that you could get some
5 80 knot winds. 112 knots, that's – that's on the higher end of what I would have
6 expected out of the system that day. But you know an 80 knot wind is not entirely out of
7 the realm of possibility. So since we did get 60 plus knots there at Grand Isle, you know
8 that's not entirely surprising to see something that would be potentially up to 80 knots.

9 **CAPT Phillips:** And if the winds are measured at 80 knots, approximately 35 feet
10 above the surface of the water, what would the winds be if you got up to 200 or 250 feet
11 above the water?

12 **WIT:** They would be probably more in the 100 to 110 knot range there. You would see
13 an order of magnitude increase in wind speeds. It's quite impressive how much of
14 difference you can have going a couple hundred feet off the ground.

15 **CAPT Phillips:** Is there a calculation or a rule of thumb that you can use to measure
16 that?

17 **WIT:** There's not really a calculation. Just kind of a rule of thumb that you know in
18 general like a lot of times when we have a tropical system coming in you we'll tell
19 people if you're in a high rise building and you're up 20 floors off the ground you can
20 expect a category higher wind and that's going to be at least 15 to 20 knots higher. And
21 so that's kind of how I would – that's what we usually use. So the same applies for a
22 severe thunderstorm event that you know if you have 70 or 80 knots at 10 meters off the

1 ground or 30 feet off the ground, then easily you could have you know 90, 100 knots if
2 you're a couple hundred feet up.

3 **CAPT Phillips:** Thank you. Does the weather service have guidance or policy about
4 how you should handle a wake low situation?

5 **WIT:** Not really. Since its kind of an uncommon event, except like I said we have about
6 2 to 3 times a year so it's not extremely common. The way that we handle it, since it is
7 kind of a broader, more larger scale event is we'll typically issue like a small craft
8 advisory or a Gale warning for the marine zones. And over land we would issue like a
9 wind advisory or essentially a high wind warning for areas depending on how strong the
10 winds are occurring or expected to develop. So I know we had a small craft advisory in
11 place that day for the marine zones because of the wake low. Because we were
12 thinking well maybe we'll get some winds you know up around 30 knots or so out of it.
13 That's what we were initially thinking. And then obviously once we started getting some
14 reports in that were showing the stronger winds it was increased to Gale warning. But
15 that was after my shift had ended.

16 **CAPT Phillips:** In your experience are wake lows becoming more common?

17 **WIT:** No. They don't seem to be more common to me. They seem to happen pretty
18 much in that you know 2 to 3 times per year from what I've seen during my time down in
19 New Orleans. In fact we had one, another weaker wake low event that happened after
20 this April 13th one, but it was much more typical where it lasted for a couple of hours.
21 You know we 30 knot winds and then it was over with. So it's not completely unheard
22 of. We just put a small craft advisory and say hey some stronger winds are expected.

23 **CAPT Phillips:** Do you remember when that next wake low happened?

1 **WIT:** Gosh, no. I don't remember exactly the date, sorry. There's many, many events
2 that we have. April 13th sticks in my mind just because it was such an unusual one.

3 **CAPT Phillips:** We have some video from the day of the incident. Weather video.

4 **WIT:** Okay.

5 **CAPT Phillips:** And I would like to play it for you and then ask you to show me what
6 you're seeing in these different videos. Lieutenant Alger can you bring up Exhibit 112
7 please. This video is from a camera with Port Fourchon. Leave it paused for a second.
8 Mr. Verdin can you tell us the orientation of this video? What direction are we looking
9 when we're looking this way?

10 **Mr. Verdin:** Yes Captain. Need my camera on. This video is taken from the Hausport
11 dock in Port Fourchon. This is the most North Western corner of Port Fourchon. The
12 waterway you see in the far background off to the left, top left corner is Bayou LaFouche
13 heading facing North. Or heading North. This camera is facing North. It is right on the
14 corner of the intersection between Bayou LaFouche and the Canal we normally call
15 Flotation Canal. This is on a tower up above Hausport dock in Port Fourchon.

16 **CAPT Phillips:** Thank you Mr. Verdin. And would you say that the vessel that we're
17 seeing in this camera is pointed with their bow towards the West?

18 **Mr. Verdin:** Yes, ma'am. And the vessel that you're looking at is approximately 310
19 feet long.

20 **CAPT Phillips:** Thank you Mr. Verdin. Lieutenant Alger if you could forward the video
21 to minute 17:30. That's good. So we're just going to let this video play for the next 8
22 minutes or so. I'm going to ask you some questions as we go. What can you see here
23 as far as winds and clouds and visibility?

1 **WIT:** Yeah so I can see that there's a what we call a shelf cloud that's approaching,
2 that's usually on the leading edge of a line of thunderstorms. And you can actually see
3 the, that kind of whitish there, that's the rain, heavier rain that's moving in. Typically we
4 will see some winds that will increase as the shelf cloud moves through. That's when
5 you're going to have your leading edge of your strong winds move through here.

6 **CAPT Phillips:** Sorry what was the term you used? What is this called?

7 **WIT:** It's a shelf cloud. It's very typical and that's what you're going to see basically
8 every time that you see a line of storms moving in. It's the low clouds on the leading
9 edge of the storm front.

10 **CAPT Phillips:** Can you tell what direction the winds are going at this point?

11 **WIT:** Oh yeah, the winds they're moving from the North to the South. Depending on
12 the orientation of the camera here if that's pointing due North.

13 **CAPT Phillips:** So the bow of the boat is pointing directly West.

14 **WIT:** Okay, alright. So we're looking North to Northwest. It may be more of a
15 Northwesterly wind. It's hard to say exactly because we're looking at it from a camera
16 and not actually there so. You can't say definitively, but I would say generally from the
17 North to the South is the direction that the winds would be blowing.

18 **CAPT Phillips:** Okay. And next to the boats you can start to see some whitecaps
19 forming in that channel there.

20 **WIT:** Yeah. And this makes sense because we had a shelf cloud move through, now
21 we're in the area of rain and this is when you're going to have, you're basically where
22 the strongest winds are occurring or developing. This is all tied in with that, you know

1 like I said that rear inflow jet. Basically those winds descending down from aloft and
2 reaching the surface. And you're going to have that with the rain shaft.

3 **CAPT Phillips:** I'm going to have to ask you to slow down as you're speaking please.

4 **WIT:** Okay, I'm sorry. I'm sorry.

5 **Mr. Verdin:** Captain may I state that the orientation of the camera that we're seeing is
6 facing the Northwest.

7 **CAPT Phillips:** Thank you.

8 **WIT:** Okay. And obviously it's quite windy now. But as far as the actual wind speed I
9 could not tell you based off this image. There's a, I mean I see rain sheets and like I
10 said wave action. But it's hard to say exactly how strong the winds would be at this
11 point based off this video.

12 **CAPT Phillips:** Okay. Can you get a sense for the direction the winds are going
13 based on what looks like some spray moving, or some rain moving through the picture?

14 **WIT:** Yeah it's kind of grainy but I can see kind of like rain sheets. You know I was
15 basing it more on the movement of the shelf clouds because the wind direction will
16 usually correspond with that. So it still would most likely be from the North, or
17 Northwest or something like that. I would doubt that the wind direction would actually
18 be changing. Since this is more of what we call a straight line. You've got it to where
19 it's all moving in the same direction. It's just tough to say how strong the winds are at
20 this point. They're definitely strong, but I couldn't hazard a guess exactly what, you
21 know what range it would be in.

22 **CAPT Phillips:** Now the camera has been oriented to face directly to the North. What
23 do you see now?

1 **WIT:** Yeah. Yeah it looks to me like – you can even see how the wind is blowing
2 across the water there, it's due North to South there. You can see the wave action. It's
3 a North, South wind 100 percent. And that was obviously a stronger wind gust that was
4 coming in there, you know again I can't really say exactly how strong based off of the
5 video, but it was definitely a more impressive wind gust that developed. This is all
6 associated still with the initial line of convection that was moving through. It's not
7 uncommon in a bow echo or a straight line type of wind event to have winds that last for
8 10 to 15 minutes and then they'll die off. So this is pretty classic for a bow echo. At this
9 point at least I would say we are you know getting into Gale force winds at a minimum.
10 It's just tough to say exactly how strong they are they are basically solid objects and you
11 can't really tell.

12 **CAPT Phillips:** Can you see the crane that's sitting next to the boat?

13 **WIT:** Yeah I can see, it's very fuzzy. I'm not sure. It looks like it is being moved by the
14 wind. And honestly if the crane is not locked in place and it's basically just there to
15 swing, then that's not unusual either. You know we would probably see that with any
16 type of tropical storm force wind. We've seen that a lot with tower cranes and stuff here
17 in New Orleans. So it's not entirely surprising that it moves. Those move – those move
18 fairly easy. But as far as the actual wind speed, again I could not actually say how
19 strong it is. I mean it looks strong. Obviously I would think that we're probably over 50
20 knots at this point. But I don't, which is a decent storm. But I don't exactly how strong.
21 I couldn't say exactly. It's a very strong wind. I definitely wouldn't want to be outside in
22 it. Hopefully everybody was taking shelter at this point. And the crane has like a wind
23 sock or a wind vane so it's not surprising that it pointed in the same direction as the

1 wind is blowing. So that helps show that it is North winds, the crane's oriented pretty
2 much directly with the wind direction now.

3 **CAPT Phillips:** Okay. What's our mark of time Lieutenant Alger.

4 **Recorder:** Buras.

5 **CAPT Phillips:** So we've been watching for about 8 ½ minutes. Does it surprise you
6 that the conditions changed so quickly?

7 **WIT:** No it does not. I mean like I said in a bow echo situation like this you could have
8 strong wind events like this that could last for you know 10 to 15 minutes. And then
9 they'll start to relax. Now I know that day based off of some of the observational data
10 that we've been reviewing that, obviously that was tied in with the wake low. Which like
11 I said we're still researching. We just think it helped maintain the winds for a longer
12 duration of time than what you would typically see with a with a normal bow echo.

13 **CAPT Phillips:** Thank you. Thank you Lieutenant Alger. You can close the video.
14 We're going to take a short recess. We'll reconvene at 1035. The time is now 1022.
15 This hearing is now in recess. Thank you.

16 *The hearing recessed at 10223, 9 August 2021*

17 *The hearing was called to order at 1035, 9 August 2021.*

18 **CAPT Phillips:** The time is 1035, this hearing is now in session. Thank you Mr.
19 Grigsby. We're going to continue to ask some additional questions. I think you've
20 already touched on this a little bit. But can you go over what kind of equipment the New
21 Orleans, Baton Rouge office uses to provide the weather services? Just kind of list of
22 what you have.

1 **WIT:** Yeah. Okay. So we have our WSR 88 radar, it's a Doppler radar system. That's
2 the main radar system that we use to issue our warnings with. And what we call
3 reflectivity or basically you can see the rain drops in the air and we see how it's moving
4 which gives us velocity. Those are the main products that we use. There's a few others
5 as well, other type of that, but I don't want to get into a full radar dissertation. We also
6 have our automated weather observing equipment. And we have those at airports in
7 the area. And the list that we maintain are only at the New Orleans International Airport,
8 Baton Rouge Airport, Lakefront Airport, Slidell Airport, Gulfport Airport, Pascagoula
9 Airport and McComb Airport. So those are the only ones that are under our purview at
10 the National Weather Service. All the other automated stations are maintained through
11 the FAA so we don't really have any control over those at all. And then you know we
12 have our advanced weather radar active processing system our AWIPS, that's what we
13 use in the office itself. That's where we can see our products displayed for us. And so
14 that's where we see our radar products. That's where we can see the observational
15 data. Where we can see the satellite data. We have our GEO stationary satellite as
16 well. There's one that's called Goat's East and one that's Goat's West. And those
17 allow us to see what's going on. You know on a small scale and on a larger scale just
18 looking at how topical the patterns re going. And we have our model data. And the
19 Weather Service does do the GFS which is the global forecast system model. That's
20 the one the National Weather Service produces. And there's also some smaller scale,
21 or meso scale models, one that I know is run by the storm prediction center which is
22 part of the Weather Service is the high resolution rapid refresh model and that was
23 something that we were looking at you know that day as well as to see how storm

1 structure and storm development would evolve. So but that's all, we can see all of that
2 through our AWIPS system at work. And it's three displays in total. There's one that's
3 just for text products which are basically when we issue our warnings and stuff, that's
4 where we see the text version of it and then send it out. And then there's the two
5 displays that show the radar data and forecast data, whatever we need to look at.

6 **CAPT Phillips:** Okay. The very first radar you mentioned was there an acronym
7 associated with that?

8 **WIT:** Yeah it's the weather service radar, WSR and it's a 88 year. That's the year that
9 it was implemented in the weather service, 1988 and the Doppler. So that's what that
10 all was, so. And that's co-located with our office here in Slidell.

11 **CAPT Phillips:** Okay. And I think I heard you when you were describing the events of
12 April 13th, I think you talked about down near Grand Isle and that there was maybe
13 some limitations with what you can see down there. Can you tell us more about those
14 limitations?

15 **WIT:** That's correct. So basically the radar beam, we have a .5 degree elevation cut
16 and so that shoots out from the radar and obviously, unfortunately the earth is round
17 and so there's curvature. And the further you get away from radar, the beam is going to
18 get a higher elevation and there's also going to be beams spreading that happens. And
19 so those are two of the limitations that we see, so. When we're down there along the
20 coast of Louisiana, in lower LaFouche, lower Jefferson Parish and even into the
21 offshore waters you're starting to get up you know 7 to 8 thousand feet, you know the
22 further off you go and once you get out into the marine zone you're getting even up in
23 the 10,000 fee up above ground level. And the beam is spreading as well. The

1 resolution decreases a bit of the storm. I mean we still have a good look at it, but it's
2 not quite as detailed as what you would get say within you know say 20, 20 to 40 miles
3 of the radar. And that's just something that we learn to deal with. We know what to
4 look at. There's certain midlevel, because that's in the midlevel of the atmosphere.
5 Midlevel signatures that we look for. And one thing that we look for is what we call mid-
6 altitude radial convergence. And like this system had that. It had a strong convergence
7 signature. Which basically means that there's air that's converging together and that's
8 indicating a strong updraft or a strong thunderstorm of that area. And a lot of times
9 when you see that you're likely going to have some type of wind or hail that's going to
10 occur with the system.

11 **CAPT Phillips:** And so if you can only see above a certain height, I think you said 7 or
12 8 thousand feet when you're down at the coast. How does that impact your ability to
13 forecast what's going to happen there?

14 **WIT:** So that's the thing with radar based warnings it's all inferred on what we're
15 seeing. And then we rely on the ground truth observations as well to help us verify what
16 we think is occurring based on what we're seeing on the radar. So that's why a lot of
17 times when you see a warning go out whether it's a severe thunderstorm warning or a
18 special marine warning they'll say Doppler radar indicated it initially in the statement.
19 That you know these winds or this hail or something could occur because that's what it
20 is. But then if we do get ground truth verification from either an automated observing
21 site or from the public or from local officials say police department, fire department,
22 emergency manager, or somebody like that then we can say okay, this, you know this,
23 the public has reported or law enforcement has reported these winds or this hail or a

1 tornado or something, a water spout or something like that. So we rely on ground truth
2 observation to help us confirm what we think is happening on the radar when we're out
3 that far. And if we don't have any observational data then we just kind of have to go
4 with what are, you know our training has told us is what we should expect.

5 **CAPT Phillips:** Okay. And you said you can get ground truthing information from a
6 site that automatically feeds you information?

7 **WIT:** Yeah. The automated weather observing sites like I was talking about.

8 Unfortunately in that area the only one, the FAA site in in Galliano, the Galliano Airport.
9 There used to be one until about a couple years ago at Port Fourchon. But we haven't
10 had any data from that site in a long, long time. So it's sorely missed honestly. And we
11 do have a National Ocean Service site that's located in Grand Isle. But there's always
12 an hour delay on data we get from that. As like I mentioned earlier we got the report of
13 76 mile per hour wind gust from that site in Grand Isle but that was after my shift had
14 ended. We didn't get that report until after, you know an hour after it had occurred. It
15 just reports hourly to us, so. That's it. That's the only data that we have. The next
16 closest one is the Louisiana Offshore Oil Port. And that's I would hazard about 15
17 nautical miles offshore of Port Fourchon. And that's the only data that we have in that
18 area that's automated.

19 **CAPT Phillips:** And you said you were talking about that site in Galliano, that's an
20 automated site, so it sends the information to you automatically?

21 **WIT:** That's right. If there's any significant changes, routinely we would get it every
22 hour and it comes through like within a minute of the data going out. But if there is
23 something significant happening then obviously it will update and that's when we saw

1 the report of the – and we saw the line of storms coming in, I was monitoring it, let's see
2 how strong the wind gust is when it rolls through here. And it had 42 knots as the peak
3 wind that occurred with that. And so I was like okay, this fits in line with what we were
4 expecting, you know those 40 to 50 knot winds with the storm. And I had already
5 issued a special weather statement for winds of 40 miles per hour or greater. And in
6 Lower LaFouche and Lower Jefferson at that time. And then I had a special marine
7 warning out already at that point for the coastal waters. Because I believe we got that
8 report around 3 O'clock if I'm remembering right. And that was the last report that I had
9 to go off of until my shift ended.

10 **CAPT Phillips:** And so if you have an automated weather observation station is that
11 something that the weather service makes a request to get that data? Or is it that a
12 certain site that says you have this available we'll send it to you?

13 **WIT:** Not that's all, that all actually just comes in automatically to us. It's per an
14 agreement with the FAA because we do aviation forecasting. They just feed us any of
15 their FAA automated flight data to us. So and I like I say we used to have a site there at
16 Port Fourchon, but we haven't had data from that in a while. I'm not sure if it got
17 decommissioned or what happened. That's what happened to a lot of those sites, it
18 would be FAA but it's local funding that helps to maintain them and keep them in
19 operation, so. It is what it is.

20 **CAPT Phillips:** If you were going to set up sites to get information from the Port
21 Fourchon or the coastal area how many sites would you like to see in that area?

22 **WIT:** Realistically as many as possible. The more data that we have the better, that's
23 what we always say in the weather industry. You know right now even having one

1 additional site or two additional sites down there would be a God send. We used to in
2 the past, not only did we have Port Fourchon, but way back when I first started here we
3 had some of the buoy data as well. But those have not reported in a long, long time. I
4 don't think they're being funded any more either. And we had a couple of those sites in
5 Terrebonne Bay. And that would have been useful data, but again – those have not
6 reported since maybe Hurricane Isaac. It's been a long time.

7 **CAPT Phillips:** Can vessels or platforms send weather information to the weather
8 service?

9 **WIT:** We get very, very few ship reports. They do come in once in a blue moon. But
10 they're not very common. We, unfortunately there are no NOAA buoys off to the West
11 of the River. We do have one to the East, but to the West there's no NOAA buoys. We
12 do have some of the, again the automated weather observing sites that are FAA
13 maintained and regulated, it's in an agreement with the oil industry that are on some of
14 the platforms. The LOOP is the closest one to the Port Fourchon area. And there are a
15 couple of other platforms that we have a little further off shore in that area. And there's
16 also a couple of sites that we have that I believe are also National Ocean Service sites.
17 One is at the Southwest Pass, of the Mississippi River. And there's another one just
18 upstream at the pilot station. That's about it. That's the extent of our data out there.

19 **CAPT Phillips:** Can you tell me about the process for a vessel to send in a report?
20 Does that go directly to your office or does it go somewhere else?

21 **WIT:** If a, I don't know the exact process or how like all the behind the scene stuff. I
22 just know if we get a ship report it shows up. We have an observational display and it
23 will show up as a moving ship report on my observational display. So I will be able to

1 see the wind bar with the knots, and the direction, if they have any temperature data or
2 anything like that. Pressure data, that'll show up. If they've sent the report in. But I
3 don't know exactly how that process works. I would say that's above my paygrade at
4 this point. That's probably something more like our ITO or maybe like our port leader
5 watch officer or something like that might know. But not myself, sorry.

6 **CAPT Phillips:** Okay. Shifting gears a little bit I would like to ask you some questions
7 about warnings. I know you've really, you kind of hit on it right at the beginning. But
8 can you just list for me the different kind of warnings that the weather service would
9 provide from your office?

10 **WIT:** Yeah of course. So if we're on inner marine zone the main warning product that
11 we have is a special marine warning. And that is equivalent to the severe thunderstorm
12 warning that we would issue over land. And also a tornado warning that we would issue
13 on land. Those are three primary say thunderstorm based warning products that we
14 issue. We also have what we call a marine weather statement which is for a weaker
15 thunderstorm that could produce winds up to 33 knots, or just below Gale force. So
16 we'll occasionally put those out as well. And then we also have an equivalent over land
17 for storms get wind speeds, get up 50 knots but not above, and those are called special
18 weather statements. But our primary warning mechanisms are the special marine
19 warning covering the marine zones and the severe and tornado warnings over land.
20 Now there is a difference in the criteria between them as far as wind speeds go. Over
21 land the severe thunderstorm warning and the tornado warning would require winds in
22 excess of 50 knots. Over water the special marine warning criteria is winds in excess of
23 34 knots. So basically once we get into that Gale force range. That's when we're

1 concerned about impact to the crafts, higher waves and potential capsizing and stuff like
2 that. So that's why we issue a special marine warning with that lower criteria.

3 **CAPT Phillips:** Thank you. And so when you issue a thunderstorm warning which is
4 only for over land you said that's when it's potential for greater than 50 knots?

5 **WIT:** That's correct, yes. And I think that's based off of damage surveys and structural
6 analysis and stuff. That's typically when we can see potential for damage to occur over
7 land, which is 50 knots. That's typically when you will have trees you know snap, and
8 power lines to be broken. You know potential damage or a threat to people as well

9 **CAPT Phillips:** Okay. And then aviation warnings would be separate from all the
10 things that you just discussed, right?

11 **WIT:** Yeah. That's depending on the office. We actually don't do aviation weather
12 warnings here. That's typically only if requested by the local airport. So we have not.
13 But I know some of the others office do, do that. But we do not do that here locally.

14 **CAPT Phillips:** Okay. And then special marine warnings that also applies for off shore
15 areas and then near coast areas?

16 **WIT:** That's correct. So we have several what we call marine zones. And so West of
17 the Mississippi River we have 4 marine zones. And there are marine zones that extend
18 out 20 nautical miles. One goes from the Southwest Pass of the Mississippi River to
19 Port Fourchon and the other marine zone goes from Port Fourchon to Lower
20 Atchafalaya River. And then there's two adjacent sets of marine zones South of those
21 for the same area but it's from 20 to 60 nautical miles out. And we have a similar set up
22 to the East of the River. And we also separate out, we have Breton Sound, Chandeleur

1 Sound, Mississippi Sound, as their own marine zones. Lake Borgne, Lake Ponchartrain,
2 and Lake Maurepas are all marine zones as well.

3 **CAPT Phillips:** Separate from those four coastal zones that you described?

4 **WIT:** That's right. So when we issue like our routine forecast products those will all be,
5 you could have a forecast for each different zone that way. And whenever we issue a
6 special marine warning if you look at the text product when we issue that it will say a
7 special marine warning and it will list out each specific zone or area that warning is
8 from. So for instance if I put a warning out for the area around Grand Isle and Port
9 Fourchon it would say special marine warning for that specific marine zone between
10 Port Fourchon and Southwest pass out to 20 nautical miles. And then typically we have
11 some marine statement like including Barataria Bay or something like that. Because
12 that's all actually included into that larger marine zone. There's been discussion of
13 separating that out, but we haven't gone that route yet, so.

14 **CAPT Phillips:** Say that last sentence again. There was some discussion about
15 separating.

16 **WIT:** There been discussion of separating – there's a discussion about separating
17 Barataria Bay and Terrebonne Bay out of the larger marine zones, but we haven't done
18 that yet. That would be a local office action that would have to be approved by the
19 higher ups over our levels at the Regional and National level.

20 **CAPT Phillips:** So who decides where the marine zone boundaries fall?

21 **WIT:** So we have pretty much, you know a large hand in that because we know our,
22 you know our climatology and all that. And like we did a massive marine zone change
23 about 10 years, 10 to 11 years ago. Originally we only had like 8 marine zones total

1 now we have around 16, if I'm doing the math right. And so it was, we basically almost
2 doubled the number of marine zones. We made the zones smaller. To better reflect
3 wave conditions and stuff like that in some of the sounds. Where we would have
4 reports from Captains, one of my coworkers kind of went out and started talking to ship
5 Captains and getting the reports from them. And realizing that we were over forecasting
6 wave heights in the sounds, at Chandeleur, Brenton, Mississippi Sound so we kind of
7 separated them out. We also made the marine zones a little smaller in size. A lot of the
8 changes were more East of the river than West of the river with that update.

9 **CAPT Phillips:** Okay. And you said one of the zones, kind of the dividing line is
10 Fourchon. So what does a mariner need to know if they are in Port Fourchon do they
11 have to watch the warnings for both of those zones?

12 **WIT:** Well so it's interesting because our warning program, as long as if you have like a
13 weather radio then you will get an alert over that from both the Buras and Morgan City
14 transmitter. So it wouldn't matter. It would read it off and you know it would say, it
15 really doesn't really like in text doesn't say, the warning text itself doesn't say this zone,
16 this zone per se, that's just in the headline part. And then when you actually listen to
17 the text down there it would say a line of storm extending from say 7 nautical miles East
18 of Grand Isle to, you know 10 nautical miles West of Port Fourchon, something like that
19 moving South at 25 knots of winds of 34 knots or greater can be expected with this
20 system that's moving through. You know stuff like that. It's more, it would – the
21 wording inside of the text product is what the main thing we try to get people to listen to.
22 Now over land it's a little different. I doubt we have cell phone signals out there, but
23 over land if you're in our warning box itself even if it covers multiple counties it's only

1 going to alert your phone if you're actually inside the warning box. But off shore I'm not
2 sure myself what the cell phone signal is like out there. Now if it was like a satellite
3 based product or something they've got then they can look at the, again like the text or
4 wording that should give you a better idea where the storm is at, so. The zone is just
5 kind of a requirement we have to have in there to say its covering – it's in these zones
6 that the warning is in effect, but the body of the text is where we say this is where the
7 storm is at and this is where it's going.

8 **CAPT Phillips:** Okay. So if you put in latitudes and longitudes in your warning it's
9 important to really look at where – where you're saying the warning is applicable?

10 **WIT:** That's correct, yes. Actually if you look at the bottom of the warning we actually
11 do have the latitude and longitude points of the box the warning box that we have. So
12 people should be able to see that at the bottom of the warning.

13 **CAPT Phillips:** And so when you have a direction and a speed for where the weather
14 is moving the warning is saying it's here now and here's where we're projecting it to go,
15 is that correct?

16 **WIT:** That's, correct, yes. And then you know we'll also have the duration of the
17 warning, you know like this is how long the warning is out so people can kind of expect,
18 okay this is where it's at and the warning is out for this long. So you know we should
19 see something happen say the next hour or something like that if it's headed towards
20 us. And also you know there's a lot of times if we have like a Port or something that we
21 can reference that's also included and it will have a general expected time of arrival of
22 winds, if a warning box catches one of those specific sites.

23 **CAPT Phillips:** And those reference points are predetermined?

1 **WIT:** Yeah that's right. It's actually part of, we have a graphic user interface that we
2 pull up when we issue these warnings that enables and then you can select, like include
3 locations and that will include the predetermined list of locations that are in there
4 already. I believe the Louisiana Oil Offshore Platform is one of those. Umm the West
5 Delta oil platform might also be one of them if I remember correct. So and the
6 Southwest Pass of the Mississippi River I know is one of them.

7 **CAPT Phillips:** Okay. You did a good job explaining to us a special marine warning
8 and you said over water that's greater than 34 knots of wind expected. How does that
9 compare -----

10 **WIT:** And there's also, oh I'm sorry. I was going to clarify that it does include large hail
11 over an inch in diameter and waterspouts. I wanted to add that in just to make sure that
12 we're fully covering the basis there, sorry.

13 **CAPT Phillips:** Okay. How does that special marine warning compare to a small craft
14 advisory?

15 **WIT:** So a special marine warning is what we call a short fused product. Typically it's
16 not going to be any longer than 1 to 2 hours in duration. And it is entirely driven by
17 thunderstorm activity. So it's a thunderstorm based warning product. And very short
18 duration, less than 2 hours. A small craft advisory is for a, it's what we call a long fused,
19 longer duration product. We can have that out you know for 6, 12, we even had it out
20 for 36 hours at times. And that is all driven by what we call the gradient or prevailing
21 wind field in general. Totally unrelated to any thunderstorm activity. So like that day
22 you know we were looking at winds of, getting up into potentially 25 to 30 knots range
23 as we were seeing the wake low being formed so we had a small craft advisory that was

1 put out for the marine zone to reflect that risk. And obviously with the increasing winds
2 another, and just to clarify a small craft advisory we do not issue that until we see winds
3 in excess of 20 knots, between 20 knots and 33 knots, and seas of 7 feet or higher. So
4 that's the criteria for a small craft advisory. And we were seeing that potential to
5 develop so we had a small advisory that we put out for the marine zones to reflect for
6 the wake low conditions that were expected. You know unfortunately it got stronger as
7 the night progressed and we did have to increase to a Gale warning. Which is also a
8 long fuse product. Hopefully that makes sense.

9 **CAPT Phillips:** I think so. Thank you. And who makes the decision about when to
10 issue a special marine warning?

11 **WIT:** So that is typically an office discussion. And we were talking with Megan, she
12 was the forecaster and since that's not a warning product that would be her job to put it
13 out. You know she let us know what she was thinking and I was like that sounds
14 reasonable to me even the winds that we were seeing with the wake low that was
15 starting to develop over Lake Pontchartrain as the day progressed and I was like go
16 ahead, you know put it out. And so she issued that. And it went out with the, you know
17 4 O'clock forecast package. I can't remember exactly what time the, it's under what we
18 call a marine watch warning product. I don't remember the exact time, but that was sent
19 out that day, off the top of my head. But I know it was sent out. And it basically said
20 yeah there's wind that could be, you know in excess of 20 knots or seas in excess of 7
21 feet and basically saying that any smaller craft that are out there should return to port
22 due to the hazardous boating conditions. But that's mostly her call since she was
23 working the forecast desk. And you know I trust her as a meteorologist as well. And

1 you know I saw the wind reports that we were getting so I was like that sounds
2 completely valid and reasonable. And so it's usually the call of the person that's doing
3 the main forecast package.

4 **CAPT Phillips:** And does the weather service give you guidance or policy about when
5 these special marine warnings have to be issued?

6 **WIT:** No there's no guidance or policy other than if you see something that looks
7 severe on radar that meets the criteria over water, you know that looks like it's going to
8 be severe then issue the warning. That's as simple as it gets. We want to get the
9 warning out as quickly and as early as possible for people can take appropriate action.
10 You know hopefully seek safe shelter, return to port or do whatever they need to
11 offshore. You know on land obviously like I said seek shelter, take you know, take
12 cover in a secure location so that they're not impacted by the thunderstorm event.

13 **CAPT Phillips:** Okay. And I know you've already touched on this a little bit, but how
14 do special marine warnings get to the public? Can you just list the different ways?

15 **WIT:** Yeah so after we push send it basically goes out to the world. And so there's
16 multiple avenues people can get it through NOAA weather radio system, we have
17 multiple transmitters set up nationwide. There are several of them here in our area.
18 They can get the weather alerts on their phones. So I'm sure most of us have seen
19 those roll through once in a while if you have a tornado or a severe thunderstorm
20 warning. We have the broadcast media as a partner, it goes directly to them and they
21 can broadcast it out so you see the scroll, sometimes on the bottom of the TV that's
22 coming directly from us and it just gets feed into their system. And then obviously you
23 know they'll have their breaks as well. I know there's satellite based services that

1 people can have where they can get reports that way. Especially if they're outside of
2 cell phone range. So there's multiple avenues for people to get warnings. And there
3 are probably even more than that. Those are the ones that I can think of off the top of
4 my head. There's a lot of different ways.

5 **CAPT Phillips:** Thank you. Can you tell me a little bit more about NOAA weather
6 radio? Is that a VHF radio you have in your office and you're sending out that
7 broadcast?

8 **WIT:** So, yeah so we send it out and then it goes over the phone line actually. And
9 transmits, so we actually have transmitters that the phone line then, the audio gets
10 converted over and it's basically sent out on that whatever frequency the transmitter is.
11 And you just have to dial into the weather radio. And we have a transmitter that's
12 located in Buras. And we have a transmitter that's located in Morgan City. There's one
13 in New Orleans. Another in Bogalusa, Baton Rouge, [in audible] Mississippi, and
14 Gulfport, Mississippi. So we have a pretty extensive network. Each one has its own
15 frequency. But it's all set out on a phone line from our office and then it goes to the
16 transmitter site and there it's converted over to the transmitter basically. Or feed onto
17 the transmitter.

18 **CAPT Phillips:** Thank you. I couldn't understand exactly all the transmitter sites you
19 said. What was the closet one to Fourchon?

20 **WIT:** Sorry. Okay yeah, so for the area of concern is going to be the, the two are going
21 to be Buras, Louisiana and Morgan City, Louisiana.

22 **CAPT Phillips:** Do you know how far inland those sites are?

1 **WIT:** Well Buras is right there along the river, so not very far inland. Lower
2 Plaquemines. It doesn't have much land anymore, so it's just right there next to the
3 water. I mean it's probably 25 miles, 30 miles as the crow flies to the East of where Port
4 Fourchon is. And Morgan City is located in Morgan City itself. So a little further inland.
5 Probably I would say about 10, 15 miles inland. And it's probably, I don't know, it's
6 further from Port Fourchon. I would say 40 to 50 miles. The Buras transmitter is going
7 to be the one that has the stronger signal at Port Fourchon.

8 **CAPT Phillips:** And if I heard you correctly you only have certain predefined marine
9 warning zones. So would the Mississippi River or any of the other rivers get special
10 marine warnings for those areas?

11 **WIT:** No they would not, no. The Mississippi River is considered a land based zone.
12 Because it's such a small narrow body of water. And so that's not covered under a
13 marine area. Those would be under the severe thunderstorm warnings.

14 **CAPT Phillips:** And how about other small lakes or bays around the area? If they're
15 not one of the ones you listed they wouldn't get special marine warnings, is that correct?

16 **WIT:** That's correct, yeah. They would just get the severe thunderstorm warnings as
17 well. So like Lake Des Allemands, Lake Salvador, stuff like that those are all in the land
18 based zones, quote on quote so they would only get severe thunderstorm warnings, not
19 special marine warnings.

20 **CAPT Phillips:** Thank you. When you do a special marine warning do you usually add
21 seas or swells to that warning? Or are you just focused on winds?

22 **WIT:** No. Yeah it's usually just the winds expected like what the wind impacts could be
23 and what, you know if there is any hail or if there are any waterspouts that could occur.

1 You know in like the impact statement we'll just say there could be high waves that
2 could lead to capsizing. That's generally what we say. It's hard to pinpoint exactly how
3 high winds – you know waves can get. Because the winds may be stronger than what
4 we're thinking on radar. We don't want to hazard that guess. We have more
5 confidence in the general, you know gradient or overall winds outside of the
6 thunderstorm, we're better at predicting waves there than we would be in a
7 thunderstorm event. So we just say high waves that could potentially capsize a ship.

8 **CAPT Phillips:** Okay. At this point I'm going to ask Lieutenant Alger to bring up Exhibit
9 200 [showing Exhibit]. And this has the special marine warnings for that day. And I want
10 you to walk me through this and try to help me see the key points on each of the
11 messages.

12 **WIT:** Alright, yeah.

13 **CAPT Phillips:** So -----

14 **WIT:** Okay, so yes. I'm sorry go ahead.

15 **CAPT Phillips:** At the top I see a lot of, in the first five lines I see a lot of letters and
16 numbers. What are the key things that I'm looking at there?

17 **WIT:** Okay. So that's what we call our VTEC coding. It's all kind of more internal to the
18 weather service. So basically, so the SMWLIX that is what our product pill, our product
19 identifier. So if we tied that into our local system that's how we would pull up the text
20 product. And that's basically special marine warning. And LIX is our office ID. We are,
21 our office is KLIX. And the zone, that's what I was talking about, the marine zone, that's
22 that GMZ so the marine zones are 550 and 552. And then there's date and then there's
23 a time. That's how long the warning is going to be out for. So 1815 Zulu or 1:15 p.m.

1 So that's what that line means. And the line above that where it says 131708 that's just
2 the time it was issued. And then below that is the VTEC coding and a lot of that is for
3 plotting it on like our web page, graphically, stuff like that and it goes to the broadcast
4 media and they use that to plot the warnings as well so you can see them on TV and
5 stuff like that. So that's where that ties in.

6 **CAPT Phillips:** Sorry.

7 **WIT:** Below that is our, I'm sorry.

8 **CAPT Phillips:** Because you're coming through a microphone system in the room I
9 need you to slow down a little bit.

10 **WIT:** Yeah.

11 **CAPT Phillips:** Just so we can all hear.

12 **WIT:** Sorry.

13 **CAPT Phillips:** I heard that, I think the fourth line down, is that what you said was the
14 time and date that the message was sent?

15 **WIT:** The fourth line down is where you have the zones that the warning is out for, 550
16 and 552. And then the date, the 13th and then 1815, that's 1815 Zulu and that's how
17 long the warning is out for. So that's the expiration time for the warning.

18 **CAPT Phillips:** Okay. And this -----

19 **WIT:** The -----

20 **CAPT Phillips:** The second line shows when it was issued?

21 **WIT:** That's correct. So KLIX that's our office. And then 131708 is the issuance time.

22 **CAPT Phillips:** Okay, thank you. And then going down to the section where it
23 describes where the marine warning is for can you walk us through that?

1 **WIT:** Okay, yeah. So basically it says the special marine warning is for, and these are
2 the descriptive words that we use for our marine zones. So these are the two marine
3 zones. Coastal waters from Port Fourchon, Louisiana to Lower Atchafalaya, Louisiana
4 out 20 nautical miles. And coastal waters from the Southwest Pass of the Mississippi
5 River to Port Fourchon, Louisiana out 20 nautical miles. So those, that's that GMZ 550
6 and 552 just put into layman's terms basically. So those are the two zones that the
7 warning was out for.

8 **CAPT Phillips:** Thank you. And what does it mean when it say until 1:15 p.m.?

9 **WIT:** So that tells you how long the warning is out for. So the warning is valid until 1:15
10 p.m. Central Daylight Time.

11 **CAPT Phillips:** So after that time you're not expecting those conditions to continue?

12 **WIT:** Well you can't say that. So that's how long we have confidence in saying it. So
13 we'll put it out for an hour basically. And then we'll monitor the situation because storms
14 can evolve quickly. And you know they can weaken, then can strengthen and so that's
15 where we will monitor it and update as needed and stuff like that. And if we have to
16 extend the warning and time or area then we will with a subsequent update.

17 **CAPT Phillips:** Okay. And then the next section says at 1207 p.m. and then it kind of
18 describes where the storm is now and where it's going to. Am I reading that correctly?

19 **WIT:** Yes, that's correct. And so basically its saying that, so basically when I put out
20 the warning, so this is when I started working on it at 1207 p.m. a severe thunderstorm
21 was located 8 nautical miles west of Grand Isle moving Northeast at 20 knots. So this
22 was out ahead of this main line of storms that pushed South from New Orleans at that
23 time. And then the next line obviously discusses the hazards what the concern is which

1 is wind gust 34 knots or greater and large hail. And the source is radar and this is what
2 I was talking about, if we had ground truth that I could say public or law enforcement or
3 something like that. And then the impact statement below that is where we say what
4 could occur based off of the wind and hail threat. And that's where the suddenly higher
5 waves warning comes in. Boats could be damaged or capsized. Make sure all on
6 board are wearing life jackets. Return to safe harbor if possible. And obviously this
7 storm was producing hail so there was a concern that it could result in injury or damage
8 to the boats. You know vessels, oil rigs as well. So that's basically like your action
9 data. This is what you should be doing based off the warning that we're issuing. And
10 then the location impacted. So this is like one of those predetermined areas I was
11 talking about. And we just say Barataria Bay. Just to kind of highlight that's the area
12 that we're concerned about with this one. And then again a lot of times, it's always
13 good to repeat yourself twice when you have a warning and we do this a lot. So we'll
14 repeat our precautionary preparedness actions again. Sort of similar to the impact
15 statement above. We just say hey seek safe harbor. You know until the storm passes.
16 You know these are potentially what we're going to see out of this storm. Again 34
17 knots or great, large hail, high waves, dangerous lightning, heavy rain. Just saying hey
18 you know try and seek safe harbor if you can. And then obviously we always end this,
19 report severe weather to the Coast Guard or National Weather Service because we
20 really value that data. And then below that is the LAT, LON coordinates that I was
21 discussing earlier. It's a lot because the boxes are very, very complicated along the
22 Louisiana coast given our very squirrely coast line that we have. So basically this the
23 box plot, these are all the points on the box. And then the time and motion, the time of

1 1707 Zulu. And I was detecting, so the storm motion was 233 degrees that's the
2 direction it was coming from and movement was 22 knots. So that's what I was seeing
3 on radar, that's what I plotted on our little, centrally and motion plot system that we
4 have. And then my initials at the bottom. And wind and hail threat again.

5 **CAPT Phillips:** Okay. And so going up towards the top of that message, Lieutenant
6 Alger if you could scroll up for me so I could see the top of that message again. Right
7 there is good. So this was located 8 miles West of Grand Isle and was moving
8 Northeast? So it would have been moving over land, am I reading that correctly?

9 **WIT:** I was actually going to be – it was moving North of Grand Isle so it was actually
10 moving into Barataria Bay. And Barataria Bay is considered part of the marine area.
11 It's part of that coastal waters from Southwest Pass of the Mississippi River to Port
12 Fourchon out 20 nautical miles. So that's where the – that's where the warning was
13 really highlighting at that time, Barataria Bay itself.

14 **CAPT Phillips:** So it wasn't really trying to highlight what was happening offshore of
15 that area?

16 **WIT:** No, that's right. This was, at this time it was well before the line of storms that
17 developed over New Orleans that started to push South that really got going. So these
18 were more of the individualized, like hail storms that I was concerned about earlier in
19 the day that were still going on.

20 **CAPT Phillips:** Thank you. And going to the next page Lieutenant Alger. Can you
21 walk me through what we're seeing here?

22 **WIT:** Yeah so this is another marine warning. This one I issued at 12:23 or 1723 Zulu.
23 And it was for Lake Pontchartrain and Lake Maurepas which is in Zone 530. And it was

1 also valid until 1:15 p.m. or 1815 Zulu. And this was for that line of thunderstorms that I
2 was talking about, the bow echo that had begun to weaken as it was moving into Saint
3 Tammany Parish. And I was concerned about the line still producing some wind gusts
4 in fact I was seeing, wind gusts of you know around 40 knots on the radar. Because we
5 had a much better look at it so it was within 15 miles or so from our radar system. So
6 we had a very good view of it. So I put that out for Lake Pontchartrain and Lake
7 Maurepas as it moved to the Southeast. With this line of storm into Lake Pontchartrain.

8 **CAPT Phillips:** Thank you.

9 **WIT:** And location, one of the predetermined is Eden Isle. So that's why that's included
10 there.

11 **CAPT Phillips:** Okay. Can we go to the next page please?

12 **WIT:** Okay. So this is when things began to transition and we had the line of
13 thunderstorms that was beginning to develop over Lake Pontchartrain that was
14 associated with, basically this was the line of storms that did eventually move South and
15 directly impact the SEACOR ship. And so it started to develop over Lake Pontchartrain
16 and Lake Maurepas and then extended as you can see 14 nautical miles Southwest of
17 Kenner. And it was moving generally to the Southeast at 10 knots, so it hadn't picked
18 up much forward speed yet, but this is when I was starting to see as I mentioned earlier
19 where it looked like it was some wind making their way back towards the surface. So I
20 put out a warning for wind gusts 34 knots or greater. Again based off what I was
21 seeing on radar. I hadn't had any actual reports at that point. We're just saying hey
22 there's going to be strong winds that could capsize your ship. Make sure you have your
23 life jackets on. Return to safe harbor. And then obviously the predetermined locations

1 there midpoint of the causeway, Orleans Maria and South [in audible]. So it kind of, you
2 know it kind of the same, this [in audible] system that we have it put out the same type
3 of information, a lot of stuff based on what we're seeing radar wise. But this is the
4 beginning of the storm system that ultimately effected Port Fourchon and the offshore
5 waters.

6 **CAPT Phillips:** Okay, thank you. Next page please.

7 **WIT:** Okay and so then again this is that storm system beginning to continue to push
8 Southward. If you recall the previous one I had out until 2:30 p.m. and so obviously I
9 had to do an update so I issued this one at 2:27. And again this extended the special
10 marine warning further to the South and included all of the coastal waters from
11 Southwest Pass of the Mississippi River to Port Fourchon, Louisiana out 20 nautical
12 miles. And then it also touched over to Breton Sound, kind of the Very, very Western
13 portion of it. And again this is pretty typical as you put out a warning for about an hour
14 in advance. Because the confidence decreases beyond that time as how the storm is
15 going to evolve. So I put it out until 3:30. And then then I said hey there's a severe
16 thunderstorm that's located 9 nautical miles Northwest of Barataria Bay and it's moving
17 East at 15 knots. Now that was based off what I was seeing from the storm motion at
18 that time. My centroid picked up on the cell that was moving there. But this was the
19 Eastern end of that line. That's where it was the strongest winds at that time. So that's
20 why it was mostly focused more into that Barataria Bay area. That's where my concern
21 was again. And in fact I even included that location impacted include Baratraia Bay. I
22 do remember this storm exactly.

23 **CAPT Phillips:** What was that? Sorry.

1 **WIT:** This is all part, I remember this storm exactly. I remember almost how it evolved
2 as I'm going through [in audible].

3 **CAPT Phillips:** And so if I'm reading this right if you were to the East of the location
4 that is noted in this warning that's when you should pay most attention to this.

5 **WIT:** That's right, yeah. So this one I was more concerned about Barataria Bay at this
6 point because it looked like that's where the strongest wind signatures were on the
7 radar at that time.

8 **CAPT Phillips:** And if I'm South of that location I'm not as, a mariner should not be as
9 concerned about this warning because it was saying its moving East?

10 **WIT:** I wouldn't say they shouldn't be as concerned. It's just something they should
11 have in the back of their mind that there is this line of storms and if they've been paying
12 attention to the previous warnings that had been issued in the area they would notice
13 that it was pushing Southward in general. But at that time the most severe winds were
14 going to be in the Barataria Bay area. But if I was in the Grand Isle area or anything like
15 that I would be definitely be keeping in mind there's a pretty decent storm that's not too
16 far away. But then again that's from a meteorologist standpoint, so.

17 **CAPT Phillips:** Right, okay. Next page please.

18 **WIT:** Alright. So yeah this is when things really started to develop and the line really
19 became well defined. It was in that about like say the 2:45 to 2:50 timeframe that I was
20 seeing this I started working on my warning right around that 2:50 mark. So I went
21 ahead and put out a special marine warning and you can see it includes three zones,
22 550, 552, and 572. I put it out until 4:00 p.m. So it includes the coastal waters out 20
23 nautical miles from Port Fourchon to the Lower Atchafalaya. From the Southwest Pass

1 to Port Fourchon and it also includes coastal waters from the Southwest Pass to Port
2 Fourchon for 20 to 60 nautical miles because part of the box went into that area. The
3 warning was out until 4:00 p.m. and described that there was line of severe
4 thunderstorms located extending from 10 nautical miles East of Barataria Bay to near
5 Point Au Fer Island and that it had also increased in forward speed and was now
6 moving Southeast at 25 knots. And so that basically covers nearly all coastal Louisiana.
7 Because Point Au Fer Island is you know in Terrebonne Parish and 10 nautical miles
8 East of Barataria Bay you're getting into Plaquemines Parish. So that covers Grand
9 Isle, Port Fourchon, that whole area. And saying winds will gust to 34 knots or greater,
10 large hail are both possible with this system. And the – it was around this time because
11 it was around 3 O'clock when I got that 43 knot gust at the Galliano Airport so that kind
12 of help me like oh this verifies, that was right after I sent this out that came in and I'm
13 okay that helps me verify that this is what I'm seeing. And you know it's a good thing
14 that I have this special marine warning out for that area. And the locations included, an
15 you have the list down there. Caillou Bay, Grand Isle, so it's got that whole coastal
16 area there potentially being impacted the Terrebonne Bay, Timbalier Island, stuff like
17 that. The storm was really starting to get going at that point.

18 **CAPT Phillips:** Really starting to what?

19 **WIT:** To get going. It started to come together as a more well defined line with the
20 stronger winds. It was starting to become a bow echo at that point. It hadn't quite yet
21 become bow echo, but it was indicating that it was starting to turn into that, at that point.

22 **CAPT Phillips:** Thank you. Are these hazards and impacts, are those things that the
23 person creating the warning types in or are those items that you can select?

1 **WIT:** So it's a graphical user – year it's something you select it's a graphical user
2 interface that we have. So hazards you can select. You can select, there's hail
3 hazards, wind hazards, waterspout hazard. There's the source like I said and the
4 impact and you can select the impact statements that you want to have in there as well.

5 **CAPT Phillips:** So nobody does -----

6 **WIT:** So that's all the user.

7 **CAPT Phillips:** So nobody has to type these out they just pick what they want to add to
8 the warning?

9 **WIT:** That's correct, yeah. No typing is involved you just select it on the GUI and you
10 push issue and that actually converts it over to the text product. And we do see that text
11 product as well so we can look over it real quick, read it, make sure it looks okay and
12 then you push send. And that's when it goes out to the world.

13 **CAPT Phillips:** Thank you. Next page please.

14 **WIT:** Okay this is the final warning that I issued on my shift. And this is the one I sent
15 out right before you know the other shift. Basically like I said before we set up so they
16 wouldn't have to issue a warning immediately. In addition the warning was expiring at 4
17 O'clock so we had to get something out beforehand. And you can see that the warning
18 expanded in size. It now includes four marine zones, 550, 552, 570, and 572. So it
19 includes all of the zones West of the Mississippi River out to 60 nautical miles. And the
20 warning went out for an hour. Like I said that's pretty typical for our warnings. It gives
21 the location it says you know strong thunderstorms. And this is the one caveat since I
22 didn't include hail it took the severe wording out. But it didn't look like hail was a
23 concern anymore. And that's something we'll have to look at. Because technically it is

1 a severe thunderstorm in our book and I'm not sure why that says strong thunderstorm.
2 So that's something I will have to look at. But it was located along the line and
3 extended from 10 nautical miles Southeast of Barataria Bay to 7 nautical miles
4 Northwest of the LOOP, Louisiana Offshore Oil Port to 9 nautical miles East of Eugene
5 Island 105. But you can see it also increased in forward speed to 30 knots. So you can
6 infer that the storm was accelerating it's getting stronger. But the one caveat that I had
7 was I had not had any other reports since Galliano came in. I didn't have any other data
8 really to speak of. And so I was like okay I'll just go ahead and say winds 34 knots or
9 greater. You know the only thing that I had to potentially go up was the fact that we did
10 get, you know that stronger signature over by Grand Isle briefly where I put out the
11 severe thunderstorm warning. Then so maybe I could have increased the winds there.
12 Because we do have a wind criteria selection where I could have gone and said you
13 know wind gusts 50 knots or greater. There's that option. That maybe that's more likely
14 the one thing I could have done at that time. But still 34 knots or greater is not anything
15 to mess with. Those are going to cause issues no matter what type of ship you're on.
16 And we still have the wording in there, precautionary, preparedness wording you know
17 there could be capsized that could occur and higher waves. So you know the impact
18 statement was in there showing that. That's the only thing that maybe I could have
19 done differently there. Say you know, let's do wind gust 50 knots or greater instead.
20 But it wouldn't have changed the outcome much I don't think at that point.

21 **CAPT Phillips:** Thank you. And you said that's the last warning you issued during
22 your watch?

23 **WIT:** That is correct, yes.

1 **CAPT Phillips:** Okay, thank you. At this point I'm going to ask some other folks up
2 here if they have any questions for you. I'm going to start out with the NTSB. So I'm
3 going to turn the microphone over to Mr. Drew Ehlers.

4 **Mr. Ehlers:** And Mr. Alger you can pull down that for now. I'll ask you to pull it up a
5 little bit later. Good morning Mr. Grigsby can you hear me?

6 **WIT:** Yeah I can hear you.

7 **Mr. Ehlers:** Okay. Thank you very much for your testimony this morning. I would like
8 to start out, you mentioned when you took over your watch the thunderstorm predication
9 was I think, you said it had moved from marginal to slight.

10 **WIT:** Correct.

11 **Mr. Ehlers:** What – where did that predication come from?

12 **WIT:** That comes from the storm predication center which is located Norman,
13 Oklahoma. It's part of the weather service. They're the ones that do our severe
14 weather outlooks and that's what that product is.

15 **Mr. Ehlers:** Okay. And can you briefly explain what marginal, slight, any other ratings
16 or any other, explain how those levels work?

17 **WIT:** Okay, yeah. So there's different levels. We have marginal, slight, enhanced,
18 moderate and high risk. So there's five levels in general. And marginal risk basically
19 means there's a 5 percent chance of a severe thunderstorm occurring in that area. A
20 slight risk means that there's a 10 percent chance of a severe thunderstorm occurring.
21 And then the levels keep going up after that. And when you get to the higher risk you're
22 up to a 50 percent chance of a severe thunderstorm occurring. And even though a 10
23 percent risk doesn't sound that high to the general public, meteorologically speaking if

1 you have a 10 percent risk of a severe thunderstorm that's not something to mess
2 around with. That's a pretty decent – pretty decent probability overall. So that's why –
3 that's what it's based off of. They look at different parameters, different severe weather
4 parameters, different, you know all the model guidance, all the data and everything to
5 determine what that risk is.

6 **Mr. Ehlers:** Okay. And whatever level is set, or whatever is predicted from the storm
7 prediction center does that change anyway you stand your watch?

8 **WIT:** Oh yeah absolutely. Yeah we actually have an operational playbook here in the
9 office and staffing levels, amount of social media posts, you know NWS chat activity,
10 that's the internal chat that we have, broadcast media, and emergency managers and
11 stuff. All that changes, everything ramps up with each level that you're in. And so if
12 you're in a slight risk you know it's recommended that you have a person dedicated to
13 radar, but not somebody that's doing radar and say decision support service or
14 something like that at the same time. You know so we generally have at least one extra
15 person on if not two. And so that's what we did that day. I was like, okay, we have two
16 people on already and I told them hey guys you're going to be helping out with
17 operations today instead of doing your regular duties. So that's what they did. Jared
18 and Julie, so Julie did the hydro and fielded phone calls and Jared did the Meso
19 analysis. And you know acquired observations. That really assisted with operationally
20 so I could focus on radar, Megan could focus on the forecast.

21 **Mr. Ehlers:** Okay. If the predication had been enhanced or higher would that brought
22 more manpower online?

1 **WIT:** Oh absolutely. Yeah we would have called in additional people. We would have
2 at least one and even probably two more. If, we'd be breaking COVID protocol but we
3 had done that in the past unfortunately. You know we would have – even if we didn't
4 get in that sixth person we would have them assisting us from home. They could do
5 social media posts and you know keep up with the general public side of the house from
6 home potentially if we didn't want to break the COVID protocol we had in place at that
7 time. But you know that's usually we can plan ahead for that stuff. A lot of times we'll
8 see there's going to be an enhanced or high risk typically two to three days out. So
9 we're pretty well prepared for those types of systems. Because they're fairly rare in
10 occurrence.

11 **Mr. Ehlers:** You said enhanced is rare?

12 **WIT:** Yeah for our area especially. We'll get that only a few times a year. Moderate to
13 high is maybe only once or twice a year. So they're rare events down here.

14 **Mr. Ehlers:** And does that predication rating, does that change on a daily basis or as
15 needed? How does that adjust?

16 **WIT:** Yeah it's actually updated two to three times a day based on how much change in
17 the forecaster confidence occurs. But at a minimum it's updated twice a day.

18 **Mr. Ehlers:** Let me back up a little bit. Is this based on expected future threat or
19 current threat or both?

20 **WIT:** It's based off the expected – it's based on the expected threat. And so there's
21 actually a three day outlook so they have a day 1, day 2 and day 3 outlook. And so like
22 the day before the day 2 outlook had the marginal risk over us, and then the day 1
23 outlook was updated that morning around 4 a.m. that's when they updated it to a slight

1 risk. And so there's always updates going on to those outlooks, day 1, day 2 and day 3.
2 And we just adjust our operational staffing based on that. And also not mentioned we
3 had a severe thunderstorm watch that was also issued for that area, for our area around
4 12 to 12:30 in the afternoon, I can't remember the exact time. And that also comes from
5 the storm prediction center. They collaborate with us, you know they're the ones that
6 are kind of like hey this is where we think severe storms are likely so we're going to put
7 out a watch, severe thunderstorm watch for the area. And so that also occurred that
8 day.

9 **Mr. Ehlers:** Did the thunderstorm threat or the thunderstorm probability did that change
10 throughout that day? This is the predication from the storm predication center.

11 **WIT:** Yeah they did another update in the late morning hours. But all it did was slightly
12 expand the slight risk area further to the South and East. And encompassed more of
13 the coast of Louisiana and the offshore waters. But the area of concern on was already
14 in a slight risk that morning. It just expanded the area a little bit.

15 **Mr. Ehlers:** And you mentioned that the predication level determines your manning for
16 the watch. Do you feel like you were adequately manned for the situation that you saw
17 on April 13th?

18 **WIT:** Absolutely. Yeah you know we had ample staffing in place. I never felt
19 overwhelmed on radar. Like I said if I needed to take a break Jared was there and he
20 was able to, you know, assist when needed. He's an experienced forecaster himself so
21 I had no issues with that. And you know I was able to take moments away from the
22 radar, have lunch and do other things that I needed to do. You know for 10 to 15

1 minute periods of time during the day. So I wasn't completely overwhelmed or anything
2 like that. None of the staff felt overwhelmed in my opinion during the day.

3 **Mr. Ehlers:** You mentioned various possible effects of a thunderstorm, hail, wind, can
4 you briefly describe how you determine what the hazards a thunderstorm might be
5 capable of producing? How do you do that, how you do the analysis?

6 **WIT:** Yeah. So you know we'll do a full radar analysis is what it is. We'll look at how
7 deep a thunderstorm, how tall a thunderstorm is. How strong it is, is determined by the
8 depth of the core so to speak. And we'll look at reflectivity and if we reflectivity values
9 that are getting up above 25, 30 thousand feet we'll be paying close attention to that
10 storm because those are more than likely going to turn severe. We'll start looking at the
11 velocity products as well, and we'll see okay do we have any signatures of strong
12 convergence aloft and that's where the air is spreading out further aloft above the storm
13 say at 40 thousand feet which means it's venting out. So there's a lot of different things
14 to look at there. We'll also look at satellite data and satellite data is really great because
15 you can see in the infrared if the storm top is cooling and the cooler it gets the stronger
16 the storm gets. So we'll look at that. And we have rapid updating satellite data now we
17 get an update every 5 minutes. So it's fantastic. It's such an upgrade from what we
18 had 10 years ago. So we look at all that and say okay these storms are the ones we
19 need to pay attention to. So you have the storms you focus on and keep any eye on
20 and follow and track. Looking at your radar and your, you know your velocity products,
21 your reflectivity and velocity products. And that's what we use to determine if we're
22 going to put out a warning. If we see a signal that looks like it's corresponding with
23 something that will be severe then we go ahead an issue a warning on it.

1 **Mr. Ehlers:** So is the tools you have available, how precise can you forecast winds?
2 Can you forecast winds within a certain range or is it more a general statement such as
3 high winds and stuff like that?

4 **WIT:** So yeah. Again there's limitations based on the distance from the radar. If you're
5 within say about 40 nautical miles of the radar we can have a much better view of the
6 low level wind field, say below 3000 feet. So that gives us higher confidence in what the
7 wind impacts should be. And so you know we'll usually say winds 50 knots or greater or
8 65 knots or greater if it's a very strong storm. But there's a severe storm moving
9 through. We don't typically give ranges, we just say a lower bound or greater. That's
10 typically what we do. Now sometimes if we are confident that the storms are not going
11 to have stronger winds, and this is only when we're looking at radar data say within 20
12 nautical miles what we're looking is below 1000 feet then our confidence increases
13 higher and we will do upper bounds. And you saw that on a product that I put out for
14 the Pontchartrain where I said up to 40 knots. That's because I had high confidence. I
15 was like okay you know I know that these are the strongest potential winds that we're
16 going to get out of this storm. You know and also looking at how the storm was
17 evolving. If the storm was strengthening I would not do the upper bound. I would have
18 said say 40 knots or greater there. But if the storm was weakening, which it was at that
19 time then okay this is probably about as strong as the winds could get. So there's a lot
20 that goes into it. We look at how the storm is evolving, you know is it strengthening, is it
21 weakening, you know and that all ties into the wording that we use when we select on
22 our GUI.

1 **Mr. Ehlers:** So I think you mentioned the effect of distance on the radar's ability to help
2 you in predicting winds and other features. First of all where is your radar located
3 specifically?

4 **WIT:** Our radar is co-located with our office in Slidell, Louisiana.

5 **Mr. Ehlers:** Okay. I'm not from around here. Can you give me a basic sense of how
6 far that is from Port Fourchon?

7 **WIT:** I would say about 80 nautical miles away.

8 **Mr. Ehlers:** So and I think you said this to Captain Phillips you had limited ability to
9 look out over Port Fourchon area is that a fair statement?

10 **WIT:** I wouldn't say limited. I mean even though we're not seeing the lowest level we
11 are still seeing mid-level and you know so even though it's at 7000 to 8000 feet above
12 ground level there and the beam is spreading as well, we could still see some
13 signatures. Like I said see what we call the mark or altitude radial conversion signature.
14 We can see that there's, you know a low level jet that may be trying to develop. It's not
15 going to be the greatest look at it. But you know might give us an idea that okay this
16 might be starting to try to bow out. So again is it the greatest data in the world, no, but it
17 is what we have to work with. I don't know if I would call it limited per se. There is a
18 great deal of data that we use there. It's just not looking at the lowest levels. And so it's
19 hard for us to determine if all that we're seeing at 7000 feet is actually translating down
20 to the surface. And that's where our ground truth reports come in and help us out a lot.

21 **Mr. Ehlers:** Is, if you have a particular area of the storm activity can you make any
22 adjustment to the radar to help develop a picture in that area?

1 **WIT:** So we can do a few things. Say if we have velocity data that is being blocked,
2 basically we call it purple haze, we literally get purple on our display. That's because
3 the radar beam is going out but at the same time it's coming back in and the velocity
4 data doesn't know how to interpret that, the algorithms in the computer. We can adjust
5 the setting to have the beam not send out the pulses as frequently. And that allows for
6 us to look at the storms better. And that day I didn't have that issue for where we were
7 at fortunately. So I had a good look at the storm and I could see all the blocks of data
8 and everything without a problem. But that is something that we will do and have done
9 in the past. If we do have that issue arise.

10 **Mr. Ehlers:** Excuse me a second while I take a look here. The coastal waters forecast,
11 I'm switching now back to your products that you are able to, or that you generate. The
12 coastal waters forecast can you explain what that is, a routine broadcast? How often
13 it's broadcasted? What information is provided in that?

14 **WIT:** Yeah. So the coastal waters forecast itself we issue it four times a day. We issue
15 it, this time of year basically daylight time will go out at 4:30 a.m., 10:30 a.m., 4:30 p.m.,
16 and 10:30 p.m. That's the latest that it can go out. Anytime generally around that, say
17 between 9:30 and 10:30 we have a little leeway there. But it can't be out any later than
18 those times. So there's four updates a day that we issue for the coastal waters
19 forecast. The forecast itself goes out 5 days and it includes the wind direction, wind
20 speed, prevailing expected over a 12 hour period, the significant wave height, the period
21 over that 12 hour period again, any type of weather impacts, just basically like the
22 chance of rain so it would say scattered showers, thunderstorms, chance of rain 40

1 percent or something like that. It's a very generalized forecast. But it covers the entire
2 marine zone as well.

3 **Mr. Ehlers:** If there's an active special marine warning or a small craft advisory is that
4 highlighted in the coastal waters forecast?

5 **WIT:** A small craft advisory or a Gale warning or something like that, a long fuse
6 warning] would be highlighted in the coastal waters forecast. But a short fuse warning
7 like a special marine warning would not. That's not included in the coastal waters
8 forecast. That's a totally separate product.

9 **Mr. Ehlers:** And I think the answer is the same, but if there's a severe thunderstorm
10 warning in a coastal location that would also not be included in that coastal waters
11 forecast?

12 **WIT:** That's correct. Yeah if it was a severe thunderstorm warning for the, you know an
13 area on land that was adjacent to the coast that would not be in the coastal waters
14 forecast.

15 **Mr. Ehlers:** Okay. I'm going to briefly diverge into the small craft advisory. I believe
16 you said a small craft advisory is issued when you have waves of 7 feet or greater, or
17 predicted or greater, did I get that correct?

18 **WIT:** That is correct. And winds of 20 knots or greater. Or 20 knots to 33 knots, I'm
19 sorry. Anything above that is a Gale warning.

20 **Mr. Ehlers:** Do you have a way to predict wave heights? Or how do you predict if the
21 wave heights will be 7 feet or greater?

22 **WIT:** Yeah. We use the numerical wave prediction system. And so what that does is
23 after we get our wind forecast completed we actually run that program locally and it's

1 run by all the coastal offices nationally but you just submit it locally. Then it runs on the
2 server and it takes the wind direction, the wind speed and it calculates the significant
3 wave height based off that. It also calculates the highest one-tenth wave height and it
4 calculates the period, because it will incorporate some of the surrounding areas, wind
5 and wave data as well for some of our surrounding offices as well from the further
6 offshore water that's done by the tropical analysis forecasting branch down in Miami.
7 So it's all kind of combined together and then that produces the wave height forecast for
8 our coastal waters forecast. And it typically takes about an hour for it to run. And it will
9 see the data come into our system.

10 **Mr. Ehlers:** I think I'm going to come back to waves in just a minute. But sticking with
11 the products again. For a special marine warning you mentioned communicating to the
12 media and I think other sources. Is special marine warnings, are those transmitted to
13 the Coast Guard as well?

14 **WIT:** I would assume so. Hopefully they have some type of system set up where they
15 get our warnings coming through. I'm not sure how they receive it. But whether that
16 would be through some type of system they have internally, that I'm not sure of. But
17 you know we send it out and if they have some type of subscription service or service
18 set up then they should be able to get those warnings.

19 **Mr. Ehlers:** Lieutenant Alger could you please bring up Exhibit 200 one more time
20 [showing Exhibit]. And if you would scroll to page 5. Okay so this is once again the
21 special marine warning issued at 2:57 p.m. Central Daylight Time on April 13th. And
22 down at the hazard where it says wind gusts to 34 knots. Basic question here, what's
23 the definition of a gust?

1 **WIT:** So a gust is generally a 10 second wind speed and that's what that definition is.
2 You know sustained wind is usually like a 2 minute average wind. So that's like the 10
3 second wind speed. The gusts are what we're forecasting for. So when we do a
4 special marine warning or a severe thunderstorm warning. Those are what's going to
5 cause most of the impacts or damage are those strong wind gusts.

6 **Mr. Ehlers:** So then you mentioned -----

7 **WIT:** It's about a 10 second average.

8 **Mr. Ehlers:** 10 second average?

9 **WIT:** Yes.

10 **Mr. Ehlers:** So you mentioned a pull down menu for each of these sections. Do you
11 have a hazard for asustained wind above a certain level?

12 **WIT:** No. It's always wind gusts.

13 **Mr. Ehlers:** Okay. In the impact section I note in the first line suddenly higher waves.
14 This is more of a weather knowledge question, but do waves tend to precede a
15 thunderstorm or arrive with a thunderstorm or follow a thunderstorm?

16 **WIT:** The waves are typically, they're going to be associated with the thunderstorm and
17 then they can continue after the thunderstorm goes through as well. It takes time for the
18 wave action to dissipate.

19 **Mr. Ehlers:** Thank you Lieutenant Alger.

20 **WIT:** And the mariners may know more about that because I've actually never been out
21 on the open water myself. So that's just based off what I've learned you know like in my
22 training over the years.

1 **Mr. Ehlers:** Okay. So now I would like to switch to talk about the weather conditions
2 that you observed on April 13th. And I would like to break it down to real simple terms.
3 You mentioned the wake low. First can you explain what a low is and why winds might
4 be associated with a low?

5 **WIT:** Well yeah a low, a low pressure system and a high pressure system, that's what
6 drives our weather. And so you have an area of literally lower air pressure next to an
7 area of higher air pressure. The lower air pressure you're going to have rising air so it's
8 going to support clouds and thunderstorm development or shower development, rainfall.
9 Higher pressure the air is actually going to sinking, it's going to be compressing. So it's
10 going to be drying out and heating up. And so that's what drives all the weather across
11 the world. And you can have large scale low pressure systems, and you can have small
12 scale, or Meso scale low pressure systems. And the wake low is a small scale, Meso
13 scale low pressure system that forms behind a strong convective system. It's basically
14 like picture that line of thunderstorm is the cold front and then the wake low, or the low
15 itself is the bigger low pressure system that tied in with that – just like you would see
16 with a low pressure system of larger scale, it's just on a much smaller scale. And it
17 doesn't always happen where you get a strong wake low to develop, but you know you
18 do some times see these form. This was the strongest I've ever seen in my entire time
19 here though. That happened April 13th. So that's, it's basically just a small low pressure
20 system that forms and there was higher pressure that was noted East and to the West
21 of the system as well. We saw that quite evident. And then it became disconnected
22 from the main convective line raced out well ahead of it. But it was surprising how long
23 it lasted. It should have died off whenever the convective line dissipated, but for some

1 reason which is what we're still researching it maintained itself for several hours until
2 about 2 to 3 O'clock in the morning. So it lasted about 12 hours which is way longer
3 than typical.

4 **Mr. Ehlers:** Can a wake low be forecasted?

5 **WIT:** It's a tough thing to forecast. There are some parameters that you can look at.
6 One of the things is if you have a dry stable layer of air about 10 to 15 thousand feet up
7 into the atmosphere that's located generally to the East and North where the convection
8 is expected to develop, that is one of the signs that you can look at. To say hey this is
9 maybe potentially a wake low setup. And we did have that that day. Like I was
10 mentioning before we did have that dryer stable air mass to the East and North of the
11 area, or of the boundary that was extending from Baton Rouge down through New
12 Orleans towards the mouth of the Mississippi River. And when you looked at the
13 sounding in the morning there was dryer air that was noted even all the way up to the
14 upper levels there say 10 to 15 thousand feet up into the air. So that was one
15 parameter that we look at. But it's not something, you can't say oh that one thing this is
16 what is going to cause it to happen. There has to be other ingredients that come into
17 play, how strong the convective line gets. You know what the upper level wind field is
18 like aloft. Lots of other things are factors in that. And from what we seen based on
19 what we've looked at so far this was unique in the fact that the upper level wind field
20 was maybe not quite as conducive as you would think, but the dryer air was there. So
21 we're trying to figure out what exactly caused this to last so long. But we're stilling
22 looking into that. Eventually a paper will come out on this, I think.

1 **Mr. Ehlers:** So did you have any sense before the wake low formed on April 13th that
2 there was a risk of a wake low developing?

3 **WIT:** Not really. Not until I actually saw it forming. That mid-day time period. When I
4 saw it starting to develop it was moving across Lake Pontchartrain and eventually to
5 New Orleans. That's when I was like oh, this is, a wake low starting to form. But even
6 in that time I didn't think that it was going to be as strong and long lasting as what it
7 ended up being.

8 **Mr. Ehlers:** And I think you've answered my next question based on your previous
9 question but I'm going to ask anyway. Can you identify a wake low real time or is it only
10 after a post storm analysis that you determine that it is a wake low?

11 **WIT:** You can definitely identify it real time. You can see it from observations. You can
12 see it on satellite. And you can see it on radar as well as it begins to develop and
13 intensifies.

14 **Mr. Ehlers:** How did, when you're seeing this form how does that effect your
15 forecasting, any warnings you put out, that kind of thing?

16 **WIT:** Yeah as far as the overall forecast goes obviously we would increase the wind
17 speed across the area, adjust the wind field to correspond to what, you know to the low
18 pressure system that's developing. And you know adjust the forecast and put out like
19 we did the small craft advisory stuff like that to account for it. If it looked like it was
20 getting stronger a Gale warning. And then on the convective side or the warning side
21 you know we would monitor it and see it how it interacted with the line of convection that
22 had originated it in the first place. And that's what we were doing that day as well. And
23 we could see that it was interacting in some way as it was causing the bow echo, it was

1 assisting the bow echo basically in strengthening as it pushed to the South. We think it
2 was wrapping in to dryer air and some stronger winds and that really helped the system
3 to strengthen as it approached the coast of Louisiana and off shore.

4 **Mr. Ehlers:** I think you -----

5 **WIT:** But that's still under research.

6 **Mr. Ehlers:** You've spoken about the wind generated by a wake low. I think you also
7 mentioned that a bow echo is associated with strong winds. Can those two effects
8 create two separate wind events? A wind event associated with the convective line and
9 a wind event associated with the wake low?

10 **WIT:** Yes. That's really what happened with this event. So you have the initial line of
11 thunderstorms that rolled through and those produced the initial wind gusts, the severe
12 wind gusts over 34 knots and probably over 50 knots well definitely given the reports
13 that we got as it pushed off shore. Then typically what you would expect is that the
14 winds would die off pretty quickly like I said 10 to 15 minutes after that initial convective
15 line moved through with a normal bow echo the winds would die off fairly rapidly and
16 then be back below say 15 to 20 knots. And the wave heights would begin to decrease
17 as well. But that did not happen with this. What happened is that then the wake low
18 basically allowed stronger winds to continue. The wake low intensified so we had winds
19 continue gusting 40 to 50 knots for several hours throughout the evening and into the
20 overnight hours. And that was across the entire region. That was in the coastal waters
21 off Port Fourchon. That was on the Mississippi Sound where we had winds of 50 plus
22 knots. That was on Lake Pontchartrain where we recorded over 40 to 50 knots. I know
23 at my house we had power outages because of the wake low winds at 7 p.m. So you

1 know it basically allowed for the winds to continue for a much, much longer time than
2 you would have expected. Based off just a convective line of storms.

3 **Mr. Ehlers:** So the initial burst of wind that we heard about was likely, and please
4 agree or disagree likely caused by the convective line, whereas the sustained 30 to 40
5 knot winds were continuous were from a wake low? Is that a fair statement or perhaps
6 it hasn't been analyzed fully yet?

7 **WIT:** No that's a very fair statement. That's exactly what happened. Agreed.

8 **Mr. Ehlers:** We know the storm moved North to South so it moved from land out into
9 the water. Does the nature of a storm change as it moves from over land to over water
10 at all?

11 **WIT:** No. I mean storms are basically, a severe storm is going to be just as strong over
12 land as it can be over water. It could be vice versa a storm can be weaker over land
13 and increase over water, or it can be strong over land and decrease in intensity over
14 water. So there really isn't anything that is driven by water itself. It's all storm
15 dependent and how a storm itself is evolving. It doesn't really have anything to do with
16 the features that it's moving over.

17 **Mr. Ehlers:** And my last question, it's probably a tough one, but you mentioned that
18 maybe the one thing that you might have done differently is in your very last forecast
19 which from what we can tell was actually after the accident. Your last forecast at 3:58
20 you might have increased the wind velocity to 50 knots or above. Do you ever have
21 concern of over – over stating weather or over stating weather in forecast? In other
22 words do you ever have concerns of saying winds are too high and causing changes to
23 commerce or whichever, do you ever have that pressure?

1 **WIT:** No we do not, no. We usually try to forecast the reasonable worst case scenario.
2 Or what we think reasonably the worst case scenario that could occur wit that or greater
3 storm. So you know that's just more hindsight we now looking back at what actually
4 happened. But with the data that I had available at the time honestly I think 34 knots
5 was the only confidence that I had to go with, that 34 knots or greater. Which basically
6 says you know Gale force winds, or tropical storm force wind or greater could occur. So
7 there could be you know storm force winds, 50 knots or greater that could occur with the
8 terminology. So that there's no like upper bounds to it really. And there's nothing like
9 NWS you know pressure or anything like that. We just say what we think is going to
10 happen.

11 **Mr. Ehlers:** Okay. Thank you very much. I appreciate your testimony. It's been very
12 helpful. Thank you, sir.

13 **CAPT Phillips:** Thank you Mr. Ehlers. I'm going to ask for a brief assessment from the
14 parties in interest on how much time they're going to need for questions for Mr. Grigsby.
15 SEACOR Marine and Falcon Global, what's your estimate?

16 **Ms. Apps:** Approximately 15 minutes.

17 **CAPT Phillips:** 15 minutes. ABS?

18 **ABS:** Captain a few minutes at most.

19 **CAPT Phillips:** A few minutes. First mate?

20 **Mr. Sterbcow:** Probably 15 to 20 minutes.

21 **CAPT Phillips:** We're going to take a recess at this time. Mr. Grigsby do you have any
22 schedule conflicts for the immediate future?

1 **WIT:** No. No I'm on an ex-shift, or supernumerary shift today so I'm good. All the way
2 to 4 p.m.

3 **CAPT Phillips:** Okay. We're going to take a recess. We'll reconvene at 1235. The
4 time is now 1222. This hearing is now in recess.

5 *The hearing recessed at 1222, 9 August 2021*

6 *The hearing was called to order at 1236, 9 August 2021.*

7 **CAPT Phillips:** The time is 1236, this hearing is now in session. Thank you for
8 continuing to answer our questions Mr. Grigsby this is helpful. At this time I'm going to
9 ask our parties in interest if they have questions for you. I'm going to start with the
10 representative from SEACOR Marine and Falcon Global.

11 **Ms. Apps:** Thank you Captain Phillips. Mr. Grigsby can you hear me?

12 **WIT:** Yes I can.

13 **Ms. Apps:** My name is Antonia Apps. I represent SEACOR Marine LLC in this case.
14 Good afternoon, sir.

15 **WIT:** Good afternoon.

16 **Ms. Apps:** Mr. Grigsby there's been testimony from witnesses in this case that the
17 weather offshore near Port Fourchon deteriorated from approximately 15 to 20 knots
18 wind speed to 80 to 90 knots in wind speed and that took place in approximately 1
19 minute and stayed at that level for a sustained period of time. Is there anything in any
20 of the forecasts or the special marine warnings that you put out that day or that the
21 National Weather Service put out that day that predicted those conditions?

22 **WIT:** Well the special marine warnings that I issued did indicate you know potential for
23 winds of 34 knots or greater. And you know that was based off the radar data and the

1 observational data that I had at the time. And you know that does imply Gale force
2 conditions or greater. And the wording in the warning did indicate the potential for
3 higher waves and you know there could be some issues with ships that you know could
4 potentially be damaged or capsized. So you know with the meteorology unfortunately
5 isn't an exact science. And we have to go with the data that we have in front of us at
6 the time when we issue these warnings. But there was not any indication on radar that
7 we had winds that strong occurring in that location. But again as explained we're only
8 looking at you know 7 to 8 thousand feet of air in that area. So it's hard to discern
9 exactly how strong the wind speeds will be unless we get ground truth observations,
10 which we did not have.

11 **Ms. Apps:** Mr. Grigsby I will come to the specific marine warnings and the meaning of
12 over 34 knot gusts in a minute. But suffice it to say you were not aware of any recorded
13 readings of 80 to 90 knots when you were putting out your special marine warnings, is
14 that fair?

15 **WIT:** That is correct.

16 **Ms. Apps:** Before I come to those weater marine, those special marine warnings and
17 the forecasts that the National Weather Service put out I want to ask you a couple of
18 follow up questions to the wake low questions that you heard from the panel earlier.
19 You testified I believe that a wake low is a low pressure system that can form behind a
20 convective line, or effectively line of thunderstorms. Did I hear that right earlier today?

21 **WIT:** That's correct, yeah.

22 **Ms. Apps:** And you typically see one or two wake lows a year, is that right?

1 **WIT:** That's correct. Yeah typically only one or two. And they typically form behind you
2 know a stronger convective line and this is what this was. We did have one later in the
3 spring. That was more over land as opposed to water. I can't remember the exact date
4 like I said. But I do know we had one earlier in the spring.

5 **Ms. Apps:** And prior to April 13th the wake lows that you had seen in your career those
6 were short – those were short lived in nature, correct? Did you hear me?

7 **WIT:** That's right. Typically they only last 2 to 3 hours. And the winds are usually in
8 the 30 to 40 knot range. So this was an unusual one. The strength and duration.

9 **Ms. Apps:** The strength and duration of this wake low combined with the other weather
10 activity that you saw on April 13th that is something that you had not seen in your entire
11 20 plus career, is that right?

12 **WIT:** That's correct.

13 **Ms. Apps:** Let me ask you about now some of the, these sort of the way you select
14 wind speeds for the weather and the marine warnings that you talked about earlier
15 today. You mentioned that you select a specific wind speed for the hazard, do you
16 recall that testimony?

17 **WIT:** Uh huh.

18 **Ms. Apps:** And the options, I just want to be clear about what options you have. You
19 have an option of selecting gusts of up to – of in excess of 34 knots, right?

20 **WIT:** That's correct, yes.

21 **Ms. Apps:** And that is the lowest level for a special marine warning, correct?

22 **WIT:** That's correct, yes.

1 **Ms. Apps:** The next highest level for a special marine warning is 50 knots or greater,
2 correct?

3 **WIT:** Yes.

4 **Ms. Apps:** And then you have one above the 50 knot level, isn't that right?

5 **WIT:** That's right. And that is 75 knots or greater?

6 **Ms. Apps:** Is it 64 knot or 75 knots greater?

7 **WIT:** I'm pretty certain it was 75 knots. But I would have to actually look at the GUI
8 again. We don't put those warnings out very, very often, so.

9 **Ms. Apps:** And when you get to that level that's the National Weather Service's
10 definition of a hurricane, correct?

11 **WIT:** Yeah it gets up into the hurricane force winds at that point, yeah.

12 **Ms. Apps:** And to the point I think you were just about to make, to get a warning level
13 of 70 or so knots or greater is a very rare and extreme weather event, correct?

14 **WIT:** Oh absolutely, yes.

15 **Ms. Apps:** And issuing a special marine warning of above 70 knots or whatever the
16 threshold is for that highest warning, that's a very rare event as well, correct?

17 **WIT:** Yes, that's correct. I'm trying to think back in my career how often I've issued one
18 that strong, and it's maybe only one other time that I can think of. One time I think of
19 where there was a very, very strong, it was actually a derecho is what we call it that had
20 pushed off shore. That was a very rare event and I can't remember the exact date, but
21 it was early in my career I know that.

1 **Ms. Apps:** Thank you Mr. Grigsby. I'm going to ask you now about some buoy
2 weather data. I think you referred earlier today to information or the buoy weather that
3 comes from Louisiana Offshore Oil Port, do you recall that testimony?

4 **WIT:** Yes.

5 **Ms. Apps:** Yes.

6 **WIT:** Umm huh.

7 **Ms. Apps:** And you are familiar with the fact that you can go back historically and
8 retrieve that buoy data and look at it after the fact, right? Is that right?

9 **WIT:** Correct.

10 **Ms. Apps:** Yes. You can also get similar buoy weather data for a location at Grand
11 Isle, right?

12 **WIT:** That's correct.

13 **Ms. Apps:** Get it on a historical bases and analyze it after the fact, right?

14 **WIT:** That's correct.

15 **Ms. Apps:** Lieutenant Alger could I ask you to show Exhibit 145 [showing Exhibit]. Mr.
16 Grigsby hopefully you can see the document on the screen.

17 **WIT:** Not yet. I'll keep an eye out for it.

18 **Ms. Apps:** Now do you see something now, sir?

19 **WIT:** Yeah, I do. That's our buoy sites.

20 **Ms. Apps:** So do you recognize the general area here depicted as South Louisiana
21 area, do you see there there's a marker for Port Fouchon and a marker for LOPL1, do
22 you see those?

23 **WIT:** Yeah.

1 **Ms. Apps:** Do you recognize this general area for lower Louisiana?

2 **WIT:** Absolutely, yes.

3 **Ms. Apps:** Yes. And LOPL1 there's a diamond next to that or a rectangle next to that,
4 does that indicate to you the rough area where that Louisiana Offshore Oil Port buoy is
5 located?

6 **WIT:** That's correct, yes.

7 **Ms. Apps:** And do you see above that there is GISL1, does that indicate to you the
8 rough area where the Grand Isle buoy weather sensor is located?

9 **WIT:** Yes.

10 **Ms. Apps:** And you see also the marker for Port Fourchon, is that consistent with
11 where you understand Port Fourchon is located?

12 **WIT:** That's correct.

13 **Ms. Apps:** Lieutenant Alger could I ask you now to bring up Coast Guard Exhibit 18
14 [showing Exhibit]. Mr. Grigsby what I'm going to show you is an exhibit from the Coast
15 Guard that contains buoy weather data from the Louisiana Offshore Oil Port. Do you
16 see that on your screen?

17 **WIT:** Yeah I do, yeah.

18 **Ms. Apps:** Are you familiar – have you ever pulled historical data like this before?

19 **WIT:** Oh yeah absolutely. We do it all the time after a tropical event goes through. We
20 have to do a post storm report, it's required that goes to the National Hurricane Center.
21 And so we use this data all the time after a tropical event goes through.

22 **Ms. Apps:** So just so we all know what we're looking at here, is it fair to say that the
23 first column on the left has the date of the particular data?

1 **WIT:** Yes. Date and the time.

2 **Ms. Apps:** Date and time.

3 **WIT:** Yes.

4 **Ms. Apps:** And are you familiar with the fact that this data is indicated in Greenwich
5 Mean Time, GMT time?

6 **WIT:** That's correct, yes.

7 **Ms. Apps:** And you subtract 5 hours from that number to get the time, the Central Time
8 in April for, well in April of this year and every other year, right?

9 **WIT:** Yes. That's right, yeah.

10 **Ms. Apps:** And then looking across the columns as we move to the right there's a
11 column wind1minspeed, do you see that?

12 **WIT:** Umm huh.

13 **Ms. Apps:** And that's the definition of a sustained wind, right? Wind that lasts more
14 than 1 minute?

15 **WIT:** That is actually, it's the wind wind1 and then its minimum speed and then there's
16 maximum speed and there's average speed. If you scroll over to the right more
17 shouldn't there be another wind column, if I'm remembering right. No there isn't, okay,
18 alright. So then yeah this would be average. Yeah that's not on this document. That's
19 going to be the average wind speed. That's going to be the sustained wind speed over
20 that average.

21 **Ms. Apps:** So let me just ask, let me ask the question again. I think it was a little
22 confusing Mr. Grigsby. Is it fair to say that the National Weather Service -----

23 **WIT:** Okay.

1 **Ms. Apps:** Defines a sustained wind as a wind speed obtained by averaging the
2 observed values over a 1 minute period that we use.

3 **WIT:** No we use a 2 minute period.

4 **Ms. Apps:** Sorry can you repeat that I did not hear you?

5 **WIT:** Sorry. It's a 2 minute period. So this is actually showing the minimum wind
6 speed and then the maximum wind speed. And then the right column is the average
7 wind speed when you, yeah.

8 **Ms. Apps:** I see, you think its minimum speed not a 1 minute speed?

9 **WIT:** That's correct.

10 **Ms. Apps:** I see. And the maximum speed, okay. Lieutenant Alger would you scroll
11 down to page 4 to the highlighted portion? Well actually pause it there Lieutenant Alger,
12 that's helpful. It actually has a note in the right hand, next to the most right hand
13 column, yes. Where it says – do you see that time is in military GMT format which we
14 already talked about Mr. Grigsby. And then it says so noon is 1700 GMT, 1800 is 2300
15 GMT. So what's highlight below, you can see the yellow highlight there is from noon
16 until 6 p.m. Do you see that?

17 **WIT:** Uh huh.

18 **Ms. Apps:** And what I would like you do, so do you see that these data recordings are
19 recorded in 5 minute increments?

20 **WIT:** Yes.

21 **Ms. Apps:** So they give a read every 5 minutes starting at 12 noon. If you could scroll
22 slightly to the right Lieutenant Alger. Right, thank you. So understanding that you have
23 the third column from the right is the minimum and the second column from the right is

1 the maximum, do you see around, well and are you familiar with the fact that this is in
2 knots?

3 **WIT:** Yes, yeah. We measure everything in knots in meteorology.

4 **Ms. Apps:** So we're talking – so around noon time what we're seeing wind speeds of a
5 minimum of 16 knots and a maximum of 20 knots, do you see that?

6 **WIT:** Yeah, that's the minimum and maximum over the 2 minute period. And so it's an
7 18.8 knot average sustained wind speed. So that would be the prevailing sustained
8 wind speed.

9 **Ms. Apps:** Lieutenant Alger can you slowly scroll down. Do you see as you go through
10 the noon hour to the 1 p.m. hour and if you could pause there, you got it Lieutenant
11 Alger, you see up until you see red entries that the weather, excuse me, the wind
12 speeds stayed largely the same within a band of approximately 16 to 20 or 22, low
13 twenties for minimums and got up to a high of 28, 29 maximums until you get close to
14 the red lines, do you see that?

15 **WIT:** Yeah.

16 **Ms. Apps:** And just for point of reference the first red entry is at GMT 2100, do you see
17 that? That's 4 p.m. Central, right?

18 **WIT:** Yeah I see that.

19 **Ms. Apps:** So there is a slight, there is an increase, it starts to be a dramatic increase
20 in the maximum speed, that is the second column from the right at approximately 3:30
21 p.m. you see it go from 30 – the maximum speeds you see it go from 33 to 36 to 38 to
22 51 and to 65 at 5 minutes to 4 p.m., do you see that?

23 **WIT:** Yeah.

1 **Ms. Apps:** And if you look below that for the time period between 4 and 6 p.m., in fact
2 you don't have to go very far down, if you look for example the maximum speed column
3 at 4:10 p.m. is 93 knots, do you see that?

4 **WIT:** Yes.

5 **Ms. Apps:** And just so we're clear 93 knots is approximately 108 miles an hour, right?

6 **WIT:** Yeah that's right. You add about 15 percent onto a, onto that rate.

7 **Ms. Apps:** And you see after that the maximum wind speeds stay in the high of the
8 80's for a period of time?

9 **WIT:** Yeah. That's as the convective line blows through and like I said typically it lasts
10 on the order of you know 10 to 15 minutes if it's a stronger system. It looks like this one
11 lasted for about 30 to 40 before the winds, then the wake low winds take over after that.

12 **Ms. Apps:** And then stays in the 70's, down to the 60's still very high all above 50,
13 correct?

14 **WIT:** Yeah that's correct. That's going to be wake low winds from say 22Z onward
15 obviously. Probably from 2145 onward.

16 **Ms. Apps:** Lieutenant Alger could I ask you to put up Exhibit 145 again and if you could
17 look at page 3 [showing Exhibit]. Show page 3. Mr. Grigsby if you look at this
18 document when it's on the screen, I apologize. If we can go to page 3 of this Exhibit
19 Lieutenant Alger, thank you. This is actually a graphic depiction of the exhibit that we
20 just looked at. Mr. Grigsby.

21 **WIT:** Umm huh.

1 **Ms. Apps:** Please take a minute to look at it. If you see it's based on Coast Guard
2 Exhibit 18 and you see this huge dramatic short, excuse me. Let me start again. You
3 see this very dramatic spike in the wind speed up to 108 around 4 p.m.

4 **WIT:** Yeah I do see that, yeah.

5 **Ms. Apps:** And you see how steep the incline is where it goes from the low 15 to 20 to
6 maybe 30's and then dramatically increases in a very short period of time to 108. Do
7 you see that?

8 **WIT:** Umm huh. Yes I do.

9 **Ms. Apps:** Would you say that is a highly unusual weather pattern based on your
10 experience?

11 **WIT:** So the rapid increase of winds is not highly unusual with a bow echo or a severe
12 line of thunderstorms that's moving through. A rapid increase in winds is actually is
13 what would be expected. It could be going from near calm to you know 60, 70 miles per
14 hour with a typical severe thunderstorm over land. This one obviously was over water.
15 It was stronger as it was pushing South so the rapid increase itself is not surprising.
16 The strength of the wind is surprising. That's a very unusual event for this area in its
17 strength side. But the rapid onset is not surprising from a meteorological standpoint.

18 **Ms. Apps:** But the – how high the winds got is not something that you've ever seen
19 before, right?

20 **WIT:** Outside of a tropical system, no. Not in our area.

21 **Ms. Apps:** Lieutenant Alger would you take that down. Thank you. If I could now
22 come to just a few of the forecasts and special marine warnings that you issued today.
23 Lieutenant Alger could you please put up Coast Guard Exhibit 226 [showing Exhibit].

1 Mr. Grigsby do you see that Exhibit 226 on the screen? It's headed National Weather
2 Service -----

3 **WIT:** Yeah.

4 **Ms. Apps:** Coastal waters forecast. Do you see that?

5 **WIT:** Yes I can.

6 **Ms. Apps:** And the notation KLIX is towards the top of that document. Do you see
7 that?

8 **WIT:** Yes.

9 **Ms. Apps:** That's for your office in Slidell, correct?

10 **WIT:** That's correct.

11 **Ms. Apps:** And the time of this particular issuance is 333 p.m. CDT, so 3:33 Central
12 Time, is that right? On April 13th.

13 **WIT:** That's correct.

14 **Ms. Apps:** I'm going to, Mr. Grigsby this document is a number of pages long, but
15 based on your testimony earlier today I think you said the most applicable marine zone
16 if you like, the GMZ numbers was 550 to 552, is that correct?

17 **WIT:** Yes that's correct.

18 **Ms. Apps:** So on that basis, Lieutenant Alger I will ask you to turn to page 5 of 7 of this
19 document. And towards the bottom of the page a little below a double dollar sign, if you
20 could scroll down a little lower, a little lower, do you see at the bottom of that page,
21 perfect Lieutenant Alger, Mr. Grigsby do you see at the bottom of the page GMZ 550 to
22 552?

23 **WIT:** Yes I do.

1 **Ms. Apps:** So that's the coastal waters from Port Fourchon, Louisiana to the Lower
2 Atchafalaya River. And the time is still 3:33 p.m. Do you see that?

3 **WIT:** Umm huh.

4 **Ms. Apps:** And then Lieutenant Alger if you could just scroll to the top of page 6 so we
5 can see the top of the text there, that's great thank you. Mr. Grigsby so you now have a
6 small craft advisory in effect, that's what you talked about is your long range product
7 earlier today. Do you see that?

8 **WIT:** That's correct, yes.

9 **Ms. Apps:** And then ----

10 **WIT:** That's what Megan the forecaster on the shift issued, correct.

11 **Ms. Apps:** Immediately below that, and again this is issued at 3:33 p.m. on April 21 –
12 April 13th, 2021. Immediately below there it says tonight Southeast winds 20 to 25
13 knots. Seas 3 to 6 feet with occasional seas to 8 feet. Dominate period 6 seconds.
14 And it goes, continues chance of thunderstorms in the evening slight chance of showers
15 late in the evening. Do you see that?

16 **WIT:** Umm huh.

17 **Ms. Apps:** That does not mention any wind speeds above 50 knots does it?

18 **WIT:** No it does not.

19 **Ms. Apps:** Lieutenant Alger if I could ask you to take that exhibit down. And if you
20 could move to Exhibit 200 [showing Exhibit]. And I know we've gone through this Mr.
21 Grigsby a couple of times so I just have a couple of questions on this exhibit. It won't
22 take too long. And these are the special marine warnings that were issued the
23 afternoon of April 13th, right?

1 **WIT:** That's correct.

2 **Ms. Apps:** And the first one indicates it's for the GMZ or the maritime zone that we're
3 interested in the 550, 552, do you see that?

4 **WIT:** Yes.

5 **Ms. Apps:** And lower down it indicates that this marine warning is in effect until 1:15
6 p.m., do you see that?

7 **WIT:** Correct, yes.

8 **Ms. Apps:** And I think you testified that that's because that's how long you had
9 confidence in that warning, do you see that?

10 **WIT:** Yes that's correct.

11 **Ms. Apps:** The next warning for that area to include 552 is on page 4, and I won't go
12 through each page because you've already done that Mr. Grigsby, but it has at the top
13 of page 4 for 538 to 552, do you see that?

14 **WIT:** Yes.

15 **Ms. Apps:** And this is issued at 2:27 p.m., do you see that?

16 **WIT:** Yes.

17 **Ms. Apps:** So can you explain, does that mean there is gap in the coverage between
18 1:15 and 2:27 p.m.?

19 **WIT:** There's no gap in coverage. What that means is that the initial severe
20 thunderstorm that was occurring earlier in the afternoon had weakened and moved out
21 of the area. And this is another thunderstorm that had moved into the area and was
22 turning severe based off of radar data that I was seeing at the time.

1 **Ms. Apps:** Lieutenant Alger would you come back to page 1? So this is the, again the
2 12:08 marine, special marine warning that you issued and I just want to focus on the
3 language where it says hazard, wind gusts 34 knots or greater. Do you see that?

4 **WIT:** Umm huh.

5 **Ms. Apps:** And I think you testified earlier that gusts means something that is an
6 average of 10 seconds long, do you recall that testimony?

7 **WIT:** Yes. That's correct.

8 **Ms. Apps:** And so this is not saying that there is 34 knots of sustained winds, this talks
9 about wind gusts of 34 knots, correct?

10 **WIT:** Yes.

11 **Ms. Apps:** And is it fair to say that you were primarily concerned with hail that day?

12 **WIT:** In the morning, but it transitioned to a wind threat by the afternoon.

13 **Ms. Apps:** So you have the hail listed there. I just want to come back to the -----

14 **WIT:** Yeah there was still some hail.

15 **Ms. Apps:** I want to come back to the various different options that you had to select.
16 And to be clear about them Mr. Grigsby. Because here you selected wind gusts of 34
17 knots or greater. You could have if you had seen the weather conditions you could
18 have selected 50 knots or greater, correct?

19 **WIT:** Correct. That would have been an option if it looked like that was going to be the
20 case based off of the radar data that I had.

21 **Ms. Apps:** And if you had been aware of potential wind gusts of 90 knots or greater
22 you could have selected the higher threshold, I think you said it was 74 knots or greater,
23 correct?

1 **WIT:** That is correct, yes.

2 **Ms. Apps:** But you did not see, or did not have that information at the time you issued
3 this marine warning at 12:08, correct?

4 **WIT:** Yeah that's correct. Based on the information on this one was going to show
5 winds of 34 probably up to about 40 to 45 knots or so. But below the 50 knot criteria.

6 **Ms. Apps:** I'm not going to march through each of these. There's another one on page
7 4, Lieutenant Alger if you could go to page 4, which indicates 2:27 marine warning
8 issued. And again you selected wind gusts of 34 knots or greater. You have another
9 marine warning on page 5 applicable to the GMZ zone 550, 552 that you issued at 2:57
10 p.m. and again you listed wind gusts of 34 knots or greater.

11 **WIT:** Umm huh.

12 **Ms. Apps:** And if you turn to page 6 Lieutenant Alger, if you wouldn't mind. You have
13 another special marine warning for 550, 552 at 3:58 p.m. And again ----

14 **CAPT Phillips:** Ms. Apps.

15 **Ms. Apps:** Yes.

16 **CAPT Phillips:** We've already gone through all of these in detail. Do you have new
17 questions about any of these warnings?

18 **Ms. Apps:** Yes one last one.

19 **CAPT Phillips:** Thank you.

20 **Ms. Apps:** The one that we didn't cover, page 7 of this exhibit. Thank you Captain
21 Phillips, I'm sorry. Page 7 of this exhibit. This is issued after your shift Mr. Grigsby, but
22 it is in the same format.

23 **WIT:** Correct.

1 **Ms. Apps:** It is listed for 552 marine zone. It is issued at 4:30 p.m., do you see that?

2 **WIT:** Yes.

3 **Ms. Apps:** And for the first time if you look down it says at 4:29 p.m. a severe
4 thunderstorm is likely producing wind gusts over 50 knots. Do you see that?

5 **WIT:** Umm huh.

6 **Ms. Apps:** So for the first time that day the National Weather Service issued an over
7 50 knot warning at 4:30 p.m. in the afternoon. Do you see that?

8 **WIT:** Yes I do.

9 **Ms. Apps:** And I want to go come back down and compare the language. I think you
10 said when you issue an impact statement, we had seen an earlier impact statement with
11 language that stated quote boats could sustain damage or capsize, closed quote in this
12 impact statement?

13 **WIT:** That's correct.

14 **Ms. Apps:** It states, I don't know if you can, if you can scroll down Lieutenant Alger. It
15 has a slightly different wording, it says boats could sustain catastrophic damage or
16 capsize. Do you see that?

17 **WIT:** Yeah.

18 **Ms. Apps:** And is that again sort of canned language that you select out of your, with
19 your, I think it's a warn-gen system when you're determining what impact to issue for
20 your marine warning?

21 **WIT:** That is correct.

22 **Ms. Apps:** Just to be clear you testified earlier also about the weather conditions over
23 Lake Pontchartrain and Baton Rouge area, do you recall that testimony?

1 **WIT:** Yeah. I talked about that, yeah.

2 **Ms. Apps:** That area is approximately 60, 70 – 60 to 70 miles North of the Lake
3 Fourchon area, correct?

4 **WIT:** That's correct, yes.

5 **Ms. Apps:** And just one last thing. A couple of additional questions on one last topic
6 Mr. Grigsby. I want to ask you about the dissemination of these special marine
7 warnings. I think you said it gets disseminated to various partners. Do you recall that
8 testimony?

9 **WIT:** Yeah. It – we push send and then it just goes out to the world. That's the best
10 way we put it. So it goes out via many avenues. It goes out to our immediate partners
11 obviously. All of our emergency management people get it. They have it go out over
12 NOAA weather radio. There's multiple avenues basically to receive the warning through
13 various services or systems.

14 **Ms. Apps:** And you don't know the list of partners to whom it goes, correct?

15 **WIT:** I don't know. It's very, very extensive. Maybe our IT know or somebody that you
16 know at the regional level might know more about that. But I just know it goes out and
17 as long as you have some type of device or something to receive it then you're going to
18 be able to get it.

19 **Ms. Apps:** You don't know if the Coast Guard is on the list, correct?

20 **WIT:** I don't know but I would assume they get it. I know we do GMDSS activities with
21 the Coast Guard, so you know we send the email and stuff if we have a tropical event
22 coming. But that's different. That's the [in audible] event. But as far as the warning I'm
23 not sure how they receive it per se.

1 **Ms. Apps:** I think I heard what you said. I'm not 100 percent sure. Mr. Grigsby, but in
2 any event.

3 **WIT:** Sorry.

4 **Ms. Apps:** It's the connection I think. Just you don't know how long, from the time that
5 you issue that warning, for example we saw one at 12:08, you don't know how long it
6 takes to get disseminated out to the various partners, correct?

7 **WIT:** Yeah. I don't know. I mean when we send it, it goes out immediately. But as far
8 as how long quickly somebody takes action based off of it, yeah we don't know that.
9 But as far as it going out I mean it should be with somebody's, if they have some type of
10 mechanism to receive it, it should be in their hands within you know a minute or so of it
11 going out. It's very quick, so.

12 **Ms. Apps:** Mr. Grigsby on April 13 did you or anyone else in the National Weather
13 Service office that you were working pick up the phone call the Coast Guard regarding
14 the different weather patterns that you were seeing that day?

15 **WIT:** No we did not. There was an email package that was sent out you know
16 highlighting the slight risk of severe weather. And that, I believe the Coast Guard was
17 on that list. But that's the only thing that was done. As far as like physically calling
18 individual people when we have the warnings going on and stuff we don't typically do
19 that. That would be a manpower issue because we have so many partners. There's
20 over 400 people on our email list. So it would be time consuming to do that.

21 **Ms. Apps:** I have no further questions.

22 **WIT:** And that's just for pre-activity stuff.

23 **Ms. Apps:** Thank you Mr. Grigsby. I have no further questions Captain Phillips.

1 **CAPT Phillips:** Thank you Ms. Apps. Lieutenant Alger you can take down the exhibit.

2 Thank you. I'm now going to turn it over to the American Bureau of Shipping.

3 **ABS:** Thank you Captain Phillips. ABS has no questions.

4 **CAPT Phillips:** Thank you very much. I'm now turning it over to the First Mate
5 representative.

6 **Mr. Sterbcow:** Mr. Grigsby can you hear me okay?

7 **WIT:** Yes I can.

8 **Mr. Sterbcow:** Okay. My name is Paul Sterbcow I represent the First Mate who was
9 on the SEACOR POWER when it capsized, okay. The question about this – the timing
10 of the event, if I understand you correctly did this weather event involve first a line of
11 very severe thunderstorms that moved through the area where the SEACOR POWER
12 was navigating, followed at some point thereafter by this wake low phenomenon? Am I
13 understanding that correctly?

14 **WIT:** That is absolutely correct. And so yeah the initial line went through in that, you
15 know say 3 to 4 O'clock time frame. And then it was immediately followed by the wake
16 low. That's why there was no cessation relief in the stronger wind. The initial winds the
17 very, very strong ones that were reported you know the 70, 80 knot or so wind were with
18 the initial line, but then the sustained 40 to 50 knot winds that continued basically
19 through 2, 3 O'clock in the morning were all associated with the wake low.

20 **Mr. Sterbcow:** So to be clear at least from your standpoint as a meteorologist does it
21 appear if this vessel capsized in the neighborhood of 3:15 to 3:20 p.m. and my client
22 reported that a squall had gone through, they measured winds of 79 miles an hour, that
23 squall passed and then a second squall came through that caused a total whiteout

1 condition where they couldn't see beyond the bow and that's when the boat went over.
2 From a meteorological perspective does that tell you that it's actually that line of
3 thunderstorms that flipped this boat?

4 **WIT:** More than likely it was the line of thunderstorms based on that. Was the squall
5 within like a few minutes of the initial squall? Because if that was the case then that all
6 would be tied in to the thunderstorm line itself.

7 **Mr. Sterbcow:** And if we've had testimony both from Mr. Mires and a rescue, a Captain
8 of a rescue vessel who said the seas and conditions actually improved a bit and then
9 gradually deteriorated towards the evening hours and the wind actually died down, but
10 then shifted from the North to the Southeast and picked up a lot, and the wind picked up
11 a lot. Would that indicate to you we've now shifted from the line of thunderstorms over
12 a period of time and now we're in a wake low conditions?

13 **WIT:** Yeah. That would indicate to me that wake low was what was taking over.
14 Although I'm a bit surprised with that Southeast wind. I would not have expected that in
15 that location. I would have expected a continuation of the Northerly or Northwesterly
16 winds. The Southeast winds that we were observing were more over towards the
17 Mississippi coast and the Mississippi Sound. And then the East wind at Lake
18 Pontchartrain and on the North Shore and across New Orleans. So maybe the wind
19 direction may be a little off. But you never know. Weather is its own animal some
20 times. Like I said it isn't an exact science. But you know the wind and the wave action
21 continuing in the evening hour was altered by the wake low itself.

22 **Mr. Sterbcow:** And did you arrive that morning to what I'll call a developing weather
23 situation whereby you were told that the risk of thunderstorms had elevated slightly and

1 then throughout the course of the morning based on your observations this became a
2 more and more severe weather situation in South Louisiana as the day went on?

3 **WIT:** Yes. That is correct. So the threat of storms increased from marginal to a slight
4 risk during the overnight hours before I came on shift. It remained in that slight risk
5 overall range, but the thunderstorm activity it transitioned from more of a hail event
6 around Baton Rouge and the river Parish region to the wind event that developed
7 basically initially North of Baton Rouge to the North Shore and then pushed Southward
8 along a preexisting boundary through metro New Orleans and along the Louisiana coast
9 and offshore. And the storm intensified as it pushed Southward from metro New
10 Orleans to the coast with extreme intensification as it approached the coast and then
11 moved offshore. And so that's why we went ahead and issued the severe thunderstorm
12 warning for Grand Isle because in that area we were indicating for a potential of winds
13 up to 50 knots. But then that looked like it weakened slightly as it pushed offshore. And
14 then of course as much as it was ending obviously it intensified again as it moved more
15 off of Port Fourchon.

16 **Mr. Sterbcow:** Okay. And if I understand you correctly the line of storms that
17 ultimately reached the SEACOR POWER was the same line that you just discussed that
18 began developing or was detected on a line from Baton Rouge, North of New Orleans
19 through Lake Pontchartrain that was the genesis of your 1:29 special marine warning,
20 correct?

21 **WIT:** That is correct. Yes. That was all from that same system. It initially formed over
22 East Feliciana Parish and Northern portions of East Baton Rouge Parish and then
23 pushed to the East, Southeast. It weakened as it moved into Western Saint Tammany,

1 but then that remaining low from that initial line pushed South across Lake Pontchartrain
2 and fired off the next line of storms. So it was an interesting evolving situation
3 throughout the day. But it was all from that initial storm that developed near Baton
4 Rouge.

5 **Mr. Sterbcow:** And as a developing weather situation if the National Weather Service's
6 mission is to protect life and property, based on what we've seen this series of special
7 marine warnings is issued to make sure that marine interest in the area of the warning
8 have the most updated information as quickly as possible, correct?

9 **WIT:** That is absolutely correct. Our goal is to get as early of a lead time out so that
10 people can take appropriate action. If you are in a ship or boat offshore like our
11 statement says we've issued a warning there is a storm approaching please seek safe
12 harbor if possible and put on your life jacket you know at a minimum because there's
13 going to be a, you know very strong winds and high waves which could capsize a ship.

14 **Mr. Sterbcow:** And the first warning that you issued at 12:08 pinpointed a
15 thunderstorm, I think a severe thunderstorm near Barataria Bay and that was a separate
16 weather event that provoked a severe marine warning prior to this line of thunderstorms,
17 correct?

18 **WIT:** That is absolutely correct. Yeah we had two individual cells that were developing
19 in the morning hours and that's one that fired up just to the West of Grand Isle, pretty
20 close to Port Fourchon honestly and then it tracked to the Northeast. We also had hail
21 reports from the Houma area and the river Parishes. And that was in that late morning
22 right around the beginning of lunchtime timeframe. Those storms did weaken and it

1 became more dominated by that second line of storms that developed over metro New
2 Orleans and swept South. That was the line that caused the incident unfortunately.

3 **Mr. Sterbcow:** So you – we've got a situation at least as of 12:08 where bad weather is
4 developing in Southeast Louisiana weather that could very well effect marine interest
5 and your office makes the decision to issue that first bulletin, I don't want to go through
6 it again, it says what it says. And then over time if I'm hearing all this correctly that
7 weather situation gradually deteriorated and never got better, did it? During the course
8 of the afternoon?

9 **WIT:** That's correct. Yeah things continued to deteriorate and you know like I said it
10 transitioned from more individualized individual cells into this larger line as we had that
11 initial system North of Baton Rouge that sunk down towards Lake Pontchartrain and
12 then that weakened and then it fired off another line of storms. Basically right on top of
13 metro New Orleans and then it swept South. And then that second line ended up being
14 the strongest line, or the strongest storm event of the day.

15 **Mr. Sterbcow:** And so between 12:08 and 2:27 the developing situation resulted in
16 your office issuing three separate special marine warnings specifically noting in the
17 voyage area 34 knot winds and the possibility of vessel capsizing, correct?

18 **WIT:** That is correct.

19 **Mr. Sterbcow:** And you and anybody else who was looking at a radar watched that line
20 of storms from 1:29 p.m. travel Southeast and worsen and worsen as it headed towards
21 the coast, correct?

22 **WIT:** That's correct.

1 **Mr. Sterbcow:** So if that line of storms reached the coast at 3 O'clock anyone who's
2 paying attention it wasn't a surprise to them was it? It wasn't a surprise to you?

3 **WIT:** It was not a surprise to me since I was on the radar that day. And if anybody had
4 appropriate situational awareness I would say that they should have been aware of the
5 thunderstorms approaching, yes.

6 **Mr. Sterbcow:** And if I understand you correctly, that line of storms both worsened and
7 traveled in the same North to South or Northwest to Southeast direction over 70 mile –
8 over a 70 mile area over about a two hour or so period. And you and anyone else who
9 looked was able to watch that happen, correct?

10 **WIT:** Yes. If they were remaining situationally aware, yes.

11 **Mr. Sterbcow:** And if operators or owners of vessels between Port Fourchon and the
12 mouth of the river wanted to know about this developing weather situation they could
13 have availed themselves of the information that you've been talking about now since 8
14 O'clock this morning, correct?

15 **WIT:** That's correct. Yeah there's multiple means. If they had access to the internet
16 they could have gone to our webpage or any other weather service that would have
17 indicated that. If they had a NOAA weather radio on board it would have alarmed or
18 alerted when the warnings were issued. There's multiple ways. If they had a satellite
19 based service I'm sure there would have been some type of, you know warning or alert
20 that would say hey there's something that came out for this area. I think there's multiple
21 avenues to receive these warning products from.

22 **Mr. Sterbcow:** Okay. Thank you. I don't have anything further.

1 **CAPT Phillips:** Thank you Mr. Sterbcow. We have a couple of follow up questions
2 from the NTSB. Mr. Muise.

3 **Mr. Muise:** Thank you Captain. Mr. Grigsby just one clarification please. We looked at
4 the LOOP platform data just a few minutes ago and I understand it's very tall, very large
5 facility. Do you know if that data is raw data from their anemometer at the top of the
6 Derrek or has it been reduced mathematically to some level that you use to compare for
7 forecasting analysis?

8 **WIT:** No. That is the raw data. So we always have to take those oil rig wind account,
9 you know wind into account we know that it typically is 200 to 300 feet in the air and sort
10 of like that same reduction factor that I was talking about a lot of times we'll reduce it
11 like 15 to 20 knots below what is recorded there and that's more than – that's typically
12 more what you would observe at the surface. Just because there is greater frictional
13 effects closer to the surface that you get, even over water.

14 **Mr. Muise:** Okay. Thank you sir.

15 **CAPT Phillips:** Thank you Mr. Muise. Mr. Ehlers.

16 **Mr. Ehlers:** Thank you Captain. Just a really quick set of questions. All the way back
17 to special warnings, marine special warnings, special marine warnings. The – are
18 special marine warnings broadcast over the NOAA port system?

19 **WIT:** That I'm not sure of. I may have to ask somebody that might know it. But if it is, I
20 can't answer that honestly. I'm not sure if it does not.

21 **Mr. Ehlers:** Are you familiar -----

22 **WIT:** Sorry I couldn't help.

1 **Mr. Ehlers:** That's okay. Are you familiar with navigational TELEX also known as
2 NAVTEX?

3 **WIT:** No I'm not.

4 **Mr. Ehlers:** Okay. Thank you very much.

5 **CAPT Phillips:** Mr. Lawrence.

6 **Mr. Lawrence:** Thank you Captain. I just had a couple questions on Exhibit 200 again.
7 Sorry about this. Can you bring up the special marine warnings? [Showing Exhibit]

8 **WIT:** Alright.

9 **Mr. Lawrence:** So on page 1 here this is the 12:08 special marine warning. And it
10 says the severe thunderstorm was located 8 nautical miles West of Grand Isle moving
11 Northeast at 20 knots. Do you see where it says that?

12 **WIT:** Umm huh.

13 **Mr. Lawrence:** If you could scroll to the bottom of this page. You said at the bottom it
14 gives a location, the time, motion and location there. So it shows the motion as ----

15 **WIT:** That's right.

16 **Mr. Lawrence:** 233 degrees. What is that 233 degrees reference?

17 **WIT:** That's the direction its coming from.

18 **Mr. Lawrence:** That's the direction that it's coming from.

19 **WIT:** That's the direction it's coming from, yes.

20 **Mr. Lawrence:** So it's not the direction that it's moving to, it's the direction it's coming
21 from?

22 **WIT:** Correct, yes.

23 **Mr. Lawrence:** Okay. So it's going away from Port Fourchon at this period?

1 **WIT:** That's correct, yeah. This is that one individual cell earlier in the day that formed
2 over Lower LaFouche and strengthened as it moved into Barataria Bay.

3 **Mr. Lawrence:** So it shows that the thunderstorms are moving away from Port
4 Fourchon. And then can we go to the next page Lieutenant Alger. So then at 12:23, oh
5 no the next page. So that's a different one.

6 **WIT:** Yeah that's up on Lake Pontchartrain.

7 **Mr. Lawrence:** A little further way. So at 1:29 I think that's the same thunderstorm. No
8 we're still in Lake Pontchartrain. It's the next one. This is 2:27, now we're in the right
9 spot again. So this is probably the same thunderstorm and it's moved but now it's going
10 – it's now 9 nautical mile Northwest of Barataria Bay moving East at 15 knots. Is this
11 storm, is it turning?

12 **WIT:** Yeah.

13 **Mr. Lawrence:** So it was moving Northeast before and now it's moving East. Did it
14 then turn all the way to the South?

15 **WIT:** No totally separate storm. Totally separate storms. That initial storm at 12
16 O'clock was already long gone and it died off at this point. So this was the storm, this
17 was the line of storms that was beginning to push South out of Lake Pontchartrain. And
18 across metro New Orleans. And there was an area where it had gotten stronger so I
19 went ahead and put out a severe thunderstorm warning for that portion of the line. That
20 was Northwest of Barataria Bay. At that time that portion of the line was moving more
21 to the East at that point. The rest of the line to the West was weaker at that point and
22 had not gotten to the level where it warranted having a warning out yet.

1 **Mr. Lawrence:** So then this storm wouldn't have been threatening the SEACOR
2 POWER leaving Port Fourchon going South then?

3 **WIT:** Yeah this particular portion of the line of storms would have more pushed into
4 Barataria Bay and Lower Plaquemines Parish. But there was a, it was a part of a line of
5 storms, it was just a stronger portion at that point. The Western portion of the line we
6 were only seeing winds more in the 30 knot range, what we were thinking at the time,
7 so. And that would have been more over towards like say Lower LaFouche. This was
8 still North of Galliano at that time. And across like Houma.

9 **Mr. Lawrence:** I think that answered my questions. Thanks.

10 **CAPT Phillips:** Thank you Mr. Lawrence. Mr. Verdin.

11 **Mr. Verdin:** Good afternoon Mr. Grigsby. I just have a couple questions. Lieutenant
12 Alger would you pull up Exhibit 16 [showing Exhibit]. Exhibit 16, sorry about that. Let
13 me pull this up. Sorry, excuse me. Can you blow that up Anthony a little bit? At the
14 beginning, I just want to make sure I'm still looking at the right one here. At the very
15 top, at the very beginning the timeline, Mr. Grigsby can you see that timeline on the far
16 left?

17 **WIT:** Yes I can.

18 **Mr. Verdin:** Again this is in Zulu time, right?

19 **WIT:** That's correct.

20 **Mr. Verdin:** Okay. The winds, Anthony if you can slide it a little bit to the right. The
21 wind speed. Can you tell me if this is knots, miles per hours or meters per second?

22 **WIT:** More than likely it's going to be measured in knots. All of our observing
23 equipment measures in knots.

1 **Mr. Verdin:** And I'm sorry this is from the Galliano Airport which you had described
2 getting weather from the airport.

3 **WIT:** That's correct.

4 **Mr. Verdin:** So this would be, again is the wind speed knots, miles per hour, or meters
5 per second?

6 **WIT:** This would be, this should be in knots. Unless they did a conversion, but this
7 should be knots because when we get the reports they're in knots.

8 **Mr. Verdin:** Okay. That's basically what I think I needed to know. Thank you. No
9 further questions.

10 **WIT:** Okay.

11 **CAPT Phillips:** Thank you Mr. Verdin. That concludes the questions we have for you
12 today Mr. Grigsby. Again thank you very much for your assistance. Thank you for
13 walking us through a lot of complicated topics. You're now released as a witness at this
14 Marine Board of Investigation hearing.

15 **WIT:** You're welcome.

16 **CAPT Phillips:** Thank you for your corporation. If I later determine that this board
17 needs additional information from you I will contact you through your counsel. If you
18 have any questions about this investigation you may contact the board recorder,
19 Lieutenant Anthony Alger. Again thank you for your help today.

20 **WIT:** You're more than welcome. Thank you. And thank you for being accommodating
21 with my schedule with my leave that I was on. And then me getting sick and doing the
22 virtual here. So thank you very much for everything with that as well.

1 **CAPT Phillips:** Thank you. We are going to take a short recess for lunch. We will
2 reconvene at 1410. The time is now 1336. This hearing is now in recess.

3 *The hearing recessed at 1336, 9 August 2021*

4 *The hearing was called to order at 1412, 9 August 2021.*

5 **CAPT Phillips:** The time is now 1412, this hearing is now in session. Good afternoon.
6 We will now hear testimony from Commander Vince Taylor who is from the Coast
7 Guard Communications Center. Lieutenant Alger will you please administer the oath?

8 **Recorder:** Good afternoon Commander. If you could you could raise your right hand.
9 A false statement given to an agency of the United States is punishable by a fine and or
10 imprisonment under 18 U.S. Code 1001. It may also subject you to discipline under the
11 Uniform Code of Military Justice. Knowing this do you solemnly swear that the
12 testimony you're about to give will be the truth, the whole truth and nothing but the truth,
13 so help you God?

14 **WIT:** I do.

15 **Recorder:** Sir you can lower your hand, sir. For the record please state your full name
16 and spell your last.

17 **WIT:** Commander Vince Taylor, that's T-A-Y-L-O-R.

18 **Recorder:** Thank you, sir. If you could identify your counsel if present to confirm
19 representation.

20 **WIT:** My agency counsel is Lieutenant Commander James Daugherty.

21 **Recorder:** And either you or your counsel if you could state the full name and spell the
22 last. Alright, sir, it looks like Mr. Daugherty is not online with us.

23 **WIT:** His last name is spelled, D-A-U-G-H-E-R-T-Y.

1 **Recorder:** Thank you, sir.

2 **CAPT Phillips:** Thank you Lieutenant Alger. Good afternoon, thank you for being here
3 with us today. I'm going to start off by asking you some questions about your
4 background and what your position involves. And then we'll go into some specific
5 questions about the communications part of it. So can you start off by telling me where
6 you currently work?

7 **WIT:** I'm currently at the Communications Command for the Coast Guard in
8 Chesapeake, Virginia.

9 **CAPT Phillips:** And how long have you been there?

10 **WIT:** Today is the two year anniversary of my change of command.

11 **CAPT Phillips:** Two years is what you said?

12 **WIT:** Yes, ma'am.

13 **CAPT Phillips:** Okay. Can you tell us a little bit about your position? You're the
14 Commanding Officer there?

15 **WIT:** Absolutely. I'm the Commanding Officer of the Communications Command, So
16 I'm the senior leader at this unit. I'm responsible for the operation of the unit's three
17 mission sets.

18 **CAPT Phillips:** And how long have you been with the Coast Guard?

19 **WIT:** I've been in the Coast Guard 19 years.

20 **CAPT Phillips:** Can you give us a brief history of some of the other things you've done
21 in the Coast Guard?

22 **WIT:** Prior to this I was the Cyber Security Chief at the Joint Interagency Task Force
23 South in Key West, Florida. Prior to that I was the Executive Assistant to the Assistant

1 Commandant for Command, Control, Communications, Computers and Information
2 Technology in Washington, D.C. Other missions support units that I've been at include
3 Workforce Chief and Information Systems Branch Chief. And IT Project Manager. My
4 operational units include a student Engineer on a 378 or 378 foot Cutter. And a
5 Command Duty Officer at the 14th Coast Guard District in Honolulu, Hawaii.

6 **CAPT Phillips:** Thank you. Have you worked for other companies besides the Coast
7 Guard?

8 **WIT:** No, ma'am.

9 **CAPT Phillips:** Alright. What's the highest level of education that you've completed?

10 **WIT:** I have two Master's degrees. One in Electrical Engineering and one in
11 Information Leadership.

12 **CAPT Phillips:** And do you have any professional licenses or certificates?

13 **WIT:** I do. I'm a certified Information Systems Security Professional. And I have a
14 Chief Information Security Officer's certificate from the National Defense University.

15 **CAPT Phillips:** Thank you. I would like to ask you a little bit about the
16 Communications Center itself. Can you tell us a little bit about what the
17 Communications Center does? I think you started saying that you have three mission.
18 Can you tell us about those?

19 **WIT:** Absolutely Captain. The Communications Command delivers Communications
20 capabilities and services to the Coast Guard Operational Commanders, Joint
21 Interagency partners and the maritime public. We operate out of five geographically
22 distributed locations. That includes Chesapeake, Virginia; Novato, California; Kodiak,
23 Alaska; Orlando, Florida; and Washington, D.C. We remotely operate a manned radio –

1 or unmanned radio facilities in Boston, Massachusetts; Charleston, South Carolina;
2 Miami; Florida; New Orleans, Louisiana; Cambria and Point Reyes, California; Astoria,
3 Oregon; and Honolulu, Hawaii. So out of these locations we operate three mission sets
4 which include long range Communications, deployable and contingency
5 Communications, and Communications assistance services for Coast Guard. For long
6 rang Communications services that includes high frequency, air to ground, flight
7 following, global maritime distress and safety system, monitoring and relay as well as
8 medium and high frequency maritime public safety broadcasts.

9 **CAPT Phillips:** And how many people are assigned to the Communications Center?

10 **WIT:** The Communications Command has 136 personnel across our five operating
11 locations.

12 **CAPT Phillips:** And do you have a watch team that's always on duty?

13 **WIT:** Yes, ma'am. We have actually two watches that operate 24 hours a day, 7 days
14 a week. One of those watches is here in Chesapeake, Virginia and one of them is in
15 Kodiak, Alaska. At all times we have 7 watch personnel on duty.

16 **CAPT Phillips:** And are those watches in Chesapeake, Virginia and Kodiak, Alaska
17 doing the same thing just in different areas?

18 **WIT:** Correct. There's four separate watch positions at these watch desks.

19 **CAPT Phillips:** Can you give us an overview of what the watch positons are?

20 **WIT:** Absolutely. So the overall supervisor with oversight is the Communications
21 Watch Officer. Below that at both locations we have a Technical Supervisor which
22 monitors the distributing Communications infrastructure and manages the marine public
23 safety broadcast. We also have two watch standers, one in each operations deck

1 conducting air to ground flight following. That's for Coast Guard aircraft command and
2 control. And we have two watch standers, one at each operations deck doing global
3 maritime distress and safety system monitoring and relay of high frequency voice
4 distress and digital select calling alerts.

5 **CAPT Phillips:** What kind of training do you need to become a watch stander in one of
6 those positions?

7 **WIT:** Absolutely, ma'am. So all of our watch standers have earned the Operation
8 Specialist rating through formalized Coast Guard training which includes radio
9 operations and Communications protocol. In addition to that the Communications
10 Command is unique as the only operators with long range Communications
11 infrastructure in the Coast Guard, therefore we have a progressive training program with
12 job qualification requirements to gain the requisite skill sets necessary to operate the
13 equipment. So these watch standers will got through and qualify first in the distress
14 monitoring and relay position, and then air to ground flight following. After that they
15 would successively move up to the qualification as a technical supervisor to do the
16 monitoring and troubleshooting of the health of this distributing Communications system
17 and the management of distributing those public safety broadcast. And the final and
18 highest watch position would be the Communications Watch Officer. And they serve as
19 the overall supervisor and management of all ongoing operations.

20 **CAPT Phillips:** Thank you. So you talked a little about these messages that get sent
21 out to mariners and ships. What are the different ways that you can send information to
22 mariners?

1 **WIT:** So the Communications Command manages distributing unmanned radio
2 facilities and we do that basically providing, transmitting information to our mariners
3 beyond 40 nautical miles offshore using medium and high frequency public safety
4 broadcast. That includes Navigational Telex.

5 **CAPT Phillips:** Navigational Telex, that's the NAVTEX system?

6 **WIT:** Yes, ma'am.

7 **CAPT Phillips:** Can you give us a little overview of what NAVTEX includes, involves?

8 **WIT:** Absolutely. NAVTEX, short for Navigational Telex is part of the global maritime
9 distress and safety system for coverage areas of 40 to 200 nautical miles offshore. It's
10 a transmission broadcast over medium frequency at 518 Kilohertz and delivers
11 navigational and meteorological warning and forecasts as well as urgent marine safety
12 information. NAVTEX forecast products that are blend existing offshore marine forecast
13 and coastal marine forecast that are tailored by the National Weather Service to fit the
14 broadcast ranges at the Coast Guard transmitter sites. These are intended for a range
15 of 40 to 200 nautical miles offshore. But the transmitters have the capacity to be able to
16 transmit up to 400 nautical miles offshore.

17 **CAPT Phillips:** Okay so to summarize it's designed for 40 to 200 nautical miles
18 offshore. But you said it could go up to 400 miles.

19 **WIT:** Yes.

20 **CAPT Phillips:** Could it be received closer than 40 nautical miles as well?

21 **WIT:** Yes, ma'am.

22 **CAPT Phillips:** Okay, thank you. And that's for a geographical area that covers the
23 entire U.S.?

1 **WIT:** It's based on the geographical locations of those unmanned facilities and each
2 one of those locations has – is built to have a certain amount of overlap with the other
3 existing regions to provide coverage along the areas responsible in the United States.

4 **CAPT Phillips:** Are there any areas that don't get covered by that equipment?

5 **WIT:** Not that I'm aware of.

6 **CAPT Phillips:** And you are sending those NAVTEX messages from there in the
7 COMCEN out to the remote stations which then goes out to the ships, is that correct?

8 **WIT:** Yes, ma'am. So the centralized processing has gone through an automated
9 information system here in Chesapeake where we receive broadcasts from the National
10 Weather Service that come to us through record message traffic by the United States
11 Navy through their Naval Weather Center in Norfolk. Those are processed here,
12 converted into a queue and at a scheduled time they are distributed out to those remote
13 sites and put into an analog signal and broadcasted out as a feed that can be received
14 by ships and converted to text and into either a printer or scrollable screen.

15 **CAPT Phillips:** That's a lot of steps, okay. Just want to make sure I got all the steps.
16 So the Weather Service sends out their messages to the Navy. And then the Navy
17 sends them to you?

18 **WIT:** Correct.

19 **CAPT Phillips:** And how does it get from the Navy to the Communications Center?

20 **WIT:** So because the Navy owns and maintains a record messages service that
21 provides authenticated process information known as C2OIX, Command and Control
22 Office Information Exchange, they process, format and make sure those messages are

1 correct and then they transmit immediately to the Communications Command and then
2 it goes immediately to the queue because our system is ready to process them.

3 **CAPT Phillips:** And is that an internet based service?

4 **WIT:** Yes, ma'am. Inside the Department of Defense Information Network.

5 **CAPT Phillips:** And the Coast Guard doesn't get the messages directly from the
6 Weather Service?

7 **WIT:** The Communications Command does not get them from the National Weather
8 Service directly.

9 **CAPT Phillips:** And then when you get the message and send it out to the remote
10 station how is that signal sent?

11 **WIT:** It's sent over a land based Telecommunications pathway. Our circuits currently
12 are managed by an internet service provider which is Verizon.

13 **CAPT Phillips:** And then from the remote station that's when it gets sent out over the
14 radio waves to the ships, correct?

15 **WIT:** Correct, ma'am. At the unmanned facilities we have transmitters that are built on
16 Montel Technology that broadcast out that signal to the ships.

17 **CAPT Phillips:** Okay and you said there's one of those stations in New Orleans?

18 **WIT:** Yes, ma'am. It's in Belle Chase.

19 **CAPT Phillips:** And does the Coast Guard maintain that unmanned station?

20 **WIT:** Yes, ma'am. The Coast Guard Base New Orleans does all the maintenance,
21 mechanical, electrical, electronic and information technology maintenance for that
22 facility and the equipment inside of it.

1 **CAPT Phillips:** Okay. And then if a ship is going to receive these messages what do
2 they need on board to do that?

3 **WIT:** So they will need to have a narrow band medium frequency receiver with the
4 abilities that is compatible with the GMDSS protocol. They would receive it. And they
5 would need a printer or scrollable screen to be able to receive the text. It's not an audio
6 signal they would be able to listen to.

7 **CAPT Phillips:** Thank you. That's a lot of steps. How long would you say it would
8 take to get from the Weather Service through all those steps and out to the mariner?

9 **WIT:** Well I don't have metrics associated with that timeframe, ma'am, what I can say
10 the delivery of this is normally timely since the United States Navy fleet also uses these
11 messages to support their operations and the safety of their vessels. So it's fairly
12 timely.

13 **CAPT Phillips:** Thank you. And you said the NAVTEX messages that your office
14 sends out are designed for an area from a 40 to a 200 nautical mile range from shore.
15 Knowing that's what the intended area is what kind of messages, weather messages do
16 you send out? Are there different kinds or all they're all same?

17 **WIT:** Absolutely. So these messages tailored by the National Weather Service are a
18 blend of both coastal as well as offshore. But they come in four basic formats which
19 would be navigational warnings, meteorological warnings, meteorological forecasts, and
20 then there's a search and rescue or piracy that goes with it.

21 **CAPT Phillips:** What was the last category you said?

22 **WIT:** Search and rescue or piracy.

1 **CAPT Phillips:** Piracy, thank you. And is that some sort of an agreement that the
2 Coast Guard has with the Weather Service that these are the types of messages we'll
3 send out?

4 **WIT:** Absolutely. There's a memorandum of agreement between the Coast Guard and
5 NOAA, National Oceanic and Atmospheric Administration, the organizations have a
6 working group called the UNCLOG which is a collaborative working group that sustains
7 this 100 year long relationship we've had to provide safety to mariners and efficient
8 commerce.

9 **CAPT Phillips:** Can you tell me about that acronym? You said UNCLOG?

10 **WIT:** Yes, ma'am. So UNCLOG basically stands for United States Coast Guard,
11 NOAA working group. It's basically just an acronym that stands for the two
12 organizations working together as a group.

13 **CAPT Phillips:** And are the weather messages you send out are they automated or
14 does it takes some sort of intervention?

15 **WIT:** So for the NAVTEX system each site is prescribed to have 6 scheduled
16 broadcasts per day. Each broadcast is of the routine weather forecast, that goes out 4
17 times a day, and then there's two of the six broadcasts are associated with notices to
18 mariners in the area. Each of those broadcast last about 4 to 10 minutes.

19 **CAPT Phillips:** So those are scheduled. Does that require a human intervention?

20 **WIT:** No, ma'am.

21 **CAPT Phillips:** Okay. And are there other messages that do require intervention?

22 **WIT:** Yes, ma'am. So special marine warnings from the National Weather Service
23 require intervention.

1 **CAPT Phillips:** Can you tell me a little bit more about that process?

2 **WIT:** When a special marine warning is released across the system the watch stander
3 who is the technical supervisor will receive an audible and a visual alert. They'll go in
4 and review the context of the message for the specific site. They check against the
5 schedule. They go through and if there's an ongoing scheduled message at the time
6 they will preempt that message, be able to send out the emergent, the special marine
7 warning. If there's no message going out at the time they'll immediately prompt the
8 system to release the message at that time.

9 **CAPT Phillips:** And what do they have to do to release the message?

10 **WIT:** For the special marine warning messages that are of a non-routine message it
11 says system is verifying the station and hitting submit.

12 **CAPT Phillips:** And then it sends it out?

13 **WIT:** Yes, ma'am. It sends it across the Telecommunications land based network to
14 that remote, or unmanned facility to send out.

15 **CAPT Phillips:** Thank you. Do you know what times the automated messages are
16 sent from New Orleans?

17 **WIT:** Yes, ma'am. That's 0100, 0500, 0900, 1300, 1700, and 2100.

18 **CAPT Phillips:** And that's local time or Zulu time?

19 **WIT:** That's in Zulu time, ma'am.

20 **CAPT Phillips:** You described the process for sending out a special marine warning.
21 Is that process described in a formal procedure somewhere?

1 **WIT:** Yes, ma'am. The process to preempt a scheduled broadcast and initiating a
2 special marine warning is an established procedure as part of that qualification process
3 we spoke of earlier, ma'am.

4 **CAPT Phillips:** So it's written down there at the Communications Center?

5 **WIT:** Yes, ma'am. It's inside of the operator instructions.

6 **CAPT Phillips:** And how long are the watch standers on watch typically? What's their
7 rotation?

8 **WIT:** They stand watch for 12 hours.

9 **CAPT Phillips:** So if they were to step away from their computer for a little while does
10 somebody fill in for them?

11 **WIT:** Absolutely. So in the event that the technical supervisor had to step away to look
12 at equipment or do a quality assurance check on one of the broadcast, because the
13 qualifications are progressive the Communications Watch Officer would go through and
14 continue to monitor the health of the infrastructure as well as monitoring for those alerts.
15 Whether they be audible or visual alerts for an emergent message.

16 **CAPT Phillips:** Okay. So the if the special marine warning came in at any point in time
17 there should be somebody there available to screen it and send it out?

18 **WIT:** Absolutely, ma'am.

19 **CAPT Phillips:** When a special marine warning is getting sent out does it have to –
20 does the watch stander have to select where it's being sent out from?

21 **WIT:** No, ma'am. So when the message comes in it's got identifiers to tell what kind of
22 message it is and where it's intended to go to. The watch stander goes through and
23 verifies the code for that message is correct for the area that it's being sent to.

1 **CAPT Phillips:** And can marine warnings sometimes go to more than one station for
2 distribution?

3 **WIT:** So it's not unless the special marine warning designates more than one
4 geographic region. But these would normally be two separate actions because they're
5 different transmitter sites. The watch stander can't hit one button and send it to two
6 different locations. They would have two messages, a queue open and they would put
7 it in to the two separate queues.

8 **CAPT Phillips:** But that would come with the tag on the message that said that?

9 **WIT:** Correct. The messages are normally associated with the predefined regional
10 areas which are agreed upon between the National Weather Service and the United
11 States Coast Guard.

12 **CAPT Phillips:** Okay. Does the Communications Center send warnings, marine
13 warnings for areas that are near the coast within that 40 nautical mile range that you
14 describe?

15 **WIT:** So as we were saying earlier Captain, yes the information is – will include,
16 inshore information blended with offshore with the regions with special marine warnings
17 for NAVTEX are broken up into 8 marine zones for the Gulf Coast.

18 **CAPT Phillips:** So you only cover some of those zones or you cover all of those 8
19 zones?

20 **WIT:** So a broadcast from our location in Belle Chase will distribute across the entire
21 area. But the identifier code will tell the mariner which area it's specific to and the
22 information associated with the weather or event that's going on. So we cover the
23 entire area.

1 **CAPT Phillips:** So if there was a special marine warning for an area from the coast line
2 out to 20 nautical miles you would send that out on NAVTEX?

3 **WIT:** If it was sent out to one of those 8 marine zones, absolutely. Yes, ma'am.

4 **CAPT Phillips:** Do you have that listing of 8 zones?

5 **WIT:** Yes, ma'am. Would you like that now?

6 **CAPT Phillips:** Yes, please.

7 **WIT:** First, first special marine warning zone is Tampa, Florida; Tallahassee, Florida;
8 Mobile, Alabama; New Orleans, Louisiana; Lake Charles, Louisiana;
9 Houston/Galveston, Texas; Corpus Christi, Texas; and Brownsville, Texas.

10 **CAPT Phillips:** Would your warnings ever go out to any inland marine areas like a
11 large lake or body of water inland?

12 **WIT:** Not if it's not identified with those 8 areas. But the National Weather Service
13 could tag one of those areas with the broadcast. We wouldn't interpret that, we would
14 just take the message and broadcast it out based on the defined geographic area.

15 **CAPT Phillips:** So if the Weather Service message comes with a New Orleans tag on
16 it then it would get sent out by your office?

17 **WIT:** Yes, ma'am.

18 **CAPT Phillips:** Thank you. And do you receive a signal if a warning doesn't go out
19 successfully?

20 **WIT:** No, ma'am. But the watch stander is alerted because they manage the health
21 and wellness of the remote infrastructure so they'll receive a notification if the
22 Communications equipment at the unmanned facility is having issues or if there's a
23 Telecommunications network connectivity issue.

1 **CAPT Phillips:** So you can hear if the system is not working. Is there any way for you
2 to confirm if the message did go out?

3 **WIT:** Yes, ma'am. So the watch stander has the requirement during the course of their
4 watch for each of the designated sites to do quality assurance checks. So they conduct
5 periodic quality assurance reviews of those broadcast. During that they'll go through
6 and review the signal strength of the propagation as well as the print acceptability. And
7 they'll rate those and put them into our radio logs.

8 **CAPT Phillips:** And that's per watch you said?

9 **WIT:** Yes, ma'am.

10 **CAPT Phillips:** Okay. I'm going to shift our focus to one specific day and that's April
11 13th, 2021. And we're going to focus on messages that came through the New Orleans
12 station on that day. Can you walk us through what message did go out to mariners from
13 the Communications Center that day? I would say let's start from 1100 Central Time,
14 so that would be 1600 Zulu and we'll go through approximately 2200 Zulu.

15 **WIT:** So if its possible ma'am, can we start with the incident or the event that happened
16 at or around 1507 Zulu? To give context to the circumstance.

17 **CAPT Phillips:** You want to start with the message at 1500 Zulu?

18 **WIT:** No, ma'am. You asked me to get started at 1600 and the reason why I would like
19 to talk about 1500 is that on or around 1500 Zulu our watch stander observed an issue
20 with the connectivity between our Chesapeake and New Orleans unmanned facility. So
21 in an effort to be able to test test that functionality they went through and they manually
22 initiated a broadcast based on the standard meteorological forecast that came out from
23 the National Weather Service at 1441 Zulu. The system log states that the broadcast

1 was sent by the watch stander but could not be confirmed it was initiated. So they went
2 through and immediately began to initiate technical assistance with Base, Coast Guard
3 Base New Orleans as well as Verizon. Because there was an issue with connectivity
4 between Chesapeake and that site. Therefore, the scheduled broadcast at 1700 Zulu
5 did not occur and then the 2100 Zulu also did not occur. And at 2123 Zulu the system
6 connectivity was restored through the assistance of Coast Guard Base New Orleans
7 and Verizon. And then the broadcast began to proceed at 0100 Zulu.

8 **CAPT Phillips:** Did they go back and tell you what happened? Why that interruption in
9 service?

10 **WIT:** No, ma'am. I don't have specified information associated with the maintenance
11 issue that went on.

12 **CAPT Phillips:** Okay. So there were no scheduled broadcast at 1700 and 2100 Zulu.
13 Would it be accurate to say that there were also no special marine warnings issued
14 during that period?

15 **WIT:** Correct, ma'am.

16 **CAPT Phillips:** What was the – prior to that issue what was the message that went out
17 before that? What time was that at?

18 **WIT:** The last successful message that had gone out on the 13th of April, ma'am, was
19 at 1300 Zulu. It included a meteorological forecast for the entire Gulf of Mexico that was
20 published by the National Weather Service at 0757 Zulu. It also included a
21 meteorological warning for a marine weather statement from Brownsville, Texas that
22 came out by the National Weather Service at 0823 Zulu. There was also a
23 meteorological warning, a marine weather statement from Corpus Christi, Texas that

1 was published by the National Weather Service at 0739 Zulu. It also included two
2 navigational warnings that were published, one was published that day on the 13th at
3 1300 Zulu and one that was previously published on the 8th of April at 1221 Zulu. So it
4 included multiple different messages that were queued up and in secession.

5 **CAPT Phillips:** Okay. So all those went out at 1300 Zulu? And that was a scheduled
6 broadcast?

7 **WIT:** Yes, ma'am.

8 **CAPT Phillips:** Okay. And you said connectivity was restored at 2123 Zulu. What was
9 the next message that was sent out after that time?

10 **WIT:** So the 0100 Zulu message went out successfully. I would have to pull up the log
11 to speak to that. Yes, ma'am. That included 9 additional messages to mariners.

12 **CAPT Phillips:** Okay. But there was nothing between that 2123 and that 0100
13 timeframe?

14 **WIT:** Yes, ma'am. Unfortunately not.

15 **CAPT Phillips:** How often do you have those kinds of problems where there's no
16 connectivity and so messages are not going out?

17 **WIT:** These problems are very rare, ma'am. We have a good support structure with
18 the Base, Coast Guard Base New Orleans. As well as the Defense service center
19 which provides the depot level maintenance. We have one of these issues maybe once
20 a year and it's very limited in the outage timeframe. It just happened to be this day that
21 it happened.

22 **CAPT Phillips:** Were there any other issues with the New Orleans station that day?

1 **WIT:** Yes, ma'am. So on the 7th of April we published through the National Geospatial
2 Intelligence Agency a broadcast that we were having intermittent degradation of
3 services at our New Orleans site. That broadcast or that notification to the public was
4 going on from the 7th of April through the, I believe it was the 18th of April. Let me check
5 and confirm that date, ma'am. Yes, ma'am.

6 **CAPT Phillips:** What does it mean degradation of services?

7 **WIT:** So each of our remote sites we have thresholds where the number of transmitters
8 and receivers, and on – during that period we were down to 4 transmitters and that's
9 across both our high frequency and the medium frequency transmitters. That means we
10 were still able to meet the requirements on a regular basis. Except for obviously during
11 that timeframe we just talked about the outage.

12 **CAPT Phillips:** Okay. And four transmitters versus your normal number of transmitters
13 does that mean it doesn't reach as far? Or does that mean it's not as strong of a
14 signal? What does that mean?

15 **WIT:** The Coast Guard at these remotes sites has built in redundancy to be able to
16 ensure that we can always provide the service or as much as possible provide that
17 service. And so we're talking about the number of available transmitters. So if one is
18 not online you have additional transmitters to be able to receive, especially since we do
19 HF digital selective calling and voice distress monitoring so we're always able to
20 respond to mariners in distress.

21 **CAPT Phillips:** So that degradation of services from the 7th through the 18th should not
22 have prevented any messages from going out?

23 **WIT:** No, ma'am.

1 **CAPT Phillips:** How often is there a message like that where there are some
2 degradation of services?

3 **WIT:** I don't have a specific metric to say how often that happens. But anytime we go
4 below the full capacity we want to make sure that we make that notification aware to
5 people so they're taking appropriate actions, make sure they have other gear and
6 equipment available.

7 **CAPT Phillips:** Okay. If you have messages that you know that are not going out
8 because some sort of connectivity issue is there a backup system to get weather
9 information out?

10 **WIT:** Backup system for the Communications Command? Or are you speaking
11 generally associated with ----

12 **CAPT Phillips:** Correct. About the Communications Command.

13 **WIT:** No, ma'am. If there was an outage at the Chesapeake site we have a continuity
14 of operations facility in Novato, California. But the Chesapeake site wasn't the issue of
15 this – for this moment, it was on site at the New Orleans location. So we had to have
16 Coast Guard Base New Orleans go through and be able to do the troubleshooting and
17 remediation of that.

18 **CAPT Phillips:** Do you have a sense for how often mariners use NAVTEX messages?

19 **WIT:** Unfortunately no, ma'am. There's no metric associated with the support of the
20 utilization of NAVTEX.

21 **CAPT Phillips:** Okay. Thank you. I'm going to turn the microphone over to Mr. Ehlers
22 with the NTSB for some questions.

23 **Mr. Ehlers:** Good afternoon Commander Taylor. Can you hear me?

1 **WIT:** I can, sir.

2 **Mr. Ehlers:** Okay. I just have a couple very quick questions. Just to be clear
3 degradation that was announced from 7 to 18 April the casualty that happened on the
4 13th of April was not related to that degradation, correct?

5 **WIT:** Correct. The degradation services from the 7th to the 18th was associated with the
6 actual transmitters themselves and the number that were available. The issue that
7 happened for the short period during the 13th of April was associated with connectivity to
8 the site itself.

9 **Mr. Ehlers:** Okay. And was that issue related to the commercial network side or the
10 Coast Guard equipment, do you know?

11 **WIT:** From my awareness it was associated with the internet service provider who is
12 Verizon.

13 **Mr. Ehlers:** Okay. Are there any other networks that are under the control of the Coast
14 Guard Communications Command, or Communications Center that transmit National
15 Weather Service special marine warnings?

16 **WIT:** No, sir.

17 **Mr. Ehlers:** Thank you very much.

18 **WIT:** Yes, sir.

19 **CAPT Phillips:** Thank you Mr. Ehlers. I don't think any other Coast Guard or NTSB
20 individuals have questions at this present time. So I'm going to turn it over to the parties
21 in interest to see if any of them have any questions for you. I'll start with the American
22 Bureau of Shipping.

23 **Mr. White:** Thank you Captain, ABS has no questions at this time.

1 **CAPT Phillips:** Thank you Mr. White. I'm going to turn it over to the representative of
2 the First Mate.

3 **Mr. Sterbcow:** Quickly, my name is Paul Sterbcow, I represent the First Mate on the
4 SEACOR POWER on the 13th. Is it my understanding that the boat was incapable of
5 receiving messages through the NAVTEX system between noon and 4 p.m. on the
6 13th?

7 **WIT:** Yes, sir. You're correct in that the system was not operating between 1500 Zulu
8 and 2123 Zulu.

9 **Mr. Sterbcow:** Is there any other means of Communications be it email or anything
10 else that would run through the system that you just described beyond the NAVTEX
11 system? Any other way to communicate with vessels?

12 **WIT:** No, sir. Not from the Communications Command. Although there are obviously
13 methods for mariners to be able to receive coastal marine forecasts. That would
14 include the NOAA weather radio, the telephone recordings by the National Weather
15 Service as well as their website. And the Coast Guard VHF voice broadcast.

16 **Mr. Sterbcow:** Right. It just wouldn't go through NAVTEX and the Command Center in
17 Virginia?

18 **WIT:** Yes, sir.

19 **Mr. Sterbcow:** This is a dedicated system I guess is the best way to put it.

20 **WIT:** Absolutely, sir.

21 **Mr. Sterbcow:** That's all I have. Thank you.

22 **WIT:** Yes, sir.

23 **CAPT Phillips:** Thank you Mr. Sterbcow. SEACOR Marine and Falcon Global.

1 **Ms. Apps:** Very briefly Captain Phillips. I'm sorry is it Lieutenant? I don't know how to
2 address the witness, I'm sorry.

3 **CAPT Phillips:** Commander.

4 **Ms. Apps:** I apologize.

5 **CAPT Phillips:** No problem.

6 **Ms. Apps:** Commander Taylor my name is Antonia Apps, I'm just going to start my
7 video, I apologize. My name is Antonia Apps I represent SEACOR Marine. I just have
8 a very few follow up questions. And thank you for your time today and for your service.

9 **WIT:** Yes, ma'am.

10 **Ms. Apps:** Do I have it right that the weather information flows from the National
11 Weather Service to the Navy Fleet Weather Center, from there to the Coast Guard,
12 Central Command Area, is that right?

13 **WIT:** Yes, ma'am. The National Weather Service produces the weather products
14 based on predefined geographic areas, they release those. They are taken by the
15 United States Navy through their Naval Weather Center. They process them and make
16 sure that they meet the specific criteria. They validate them and they put them
17 immediately into record message system. So that they are already validated. Because
18 the Coast Guard doesn't have a weather service so they're validating that information
19 and making sure it's the correct format, etc. so we can get it out to the public in a trusted
20 manner.

21 **Ms. Apps:** Thank you. And who, on April 13th who was the Command Officer in the
22 New Orleans Communications Center if you know?

1 **WIT:** You're asking for the – who was at the Sector, the District or the unmanned
2 facility that the Communications Command has in New Orleans? I'm confused, ma'am.

3 **Ms. Apps:** The District and the Sector if you have that information?

4 **WIT:** I don't have that information.

5 **Ms. Apps:** So just to be clear on the period of lack of connectivity at the local level that
6 you've already talked about, I think you said it was from 1700 Zulu to 2123 Zulu. So to
7 be clear in April that would mean it's from noon time Central, Central Time to 4:23
8 Central Time, is that right?

9 **WIT:** Yes, ma'am, from 1507 Zulu, you said 1700. But 1500 yes, ma'am. So it's noon
10 to 4, yes, ma'am.

11 **Ms. Apps:** So if there was a special marine warning issued at 12:08 p.m. Central Time
12 that would not have gone through to the NAVTEX system ----

13 **WIT:** Correct.

14 **Ms. Apps:** On board the vessel.

15 **WIT:** Yes, ma'am.

16 **Ms. Apps:** No further questions. Thank you for your time Commander.

17 **WIT:** Yes, ma'am.

18 **CAPT Phillips:** Thank you Ms. Apps. Mr. Verdin.

19 **Mr. Verdin:** Good afternoon Commander. The ----

20 **CAPT Phillips:** Mr. Verdin are you willing to turn on your camera?

21 **Mr. Verdin:** Yes, ma'am, I am.

22 **CAPT Phillips:** Thank you.

1 **Mr. Verdin:** I'm sorry. Good afternoon Commander. Is the NAVTEX broadcast the
2 only Communications that's broadcasted marine information broadcast that's coming
3 through the Command Center?

4 **WIT:** From the Coast Guard Communications Command? Yes out of the New Orleans
5 C5I that provides that information.

6 **Mr. Verdin:** Alright. So what about the high frequency broadcast marine information
7 broadcast or anything? Where would that come from? Would you know?

8 **WIT:** I'm trying – so currently the only utilization of high frequency NAVTEX is done out
9 of our site in Guam. But otherwise there's no high frequency NAVTEX that is provided.
10 NAVTEX, MF NAVTEX is 518 Kilohertz is the international agreed upon based on
11 SOLAS, sir.

12 **Mr. Verdin:** Right, right. NAVTEX is the wrong, it's the wrong – for high frequency
13 utilization it may be the wrong term, its high frequency Telex weather information
14 broadcast via Telex through the high frequency channels. Okay I think I just lost my
15 visual as well. The reason I'm asking are you familiar with the operational requirements
16 of GMDSS on board the vessels?

17 **WIT:** A little bit, I don't of them all, sir.

18 **Mr. Verdin:** Is it a requirement for a vessel to receive weather information or other
19 navigational information via multiple sources from shore base for the area of operations
20 that they're operating in?

21 **WIT:** It's my understanding that would be, but I can't speak affirmatively on that, sir.

22 **Mr. Verdin:** Okay. So if I and I'm just trying to explain it or maybe just confirm so if I'm
23 working outside of an area of 200 miles, say Sea Area 3 I must have means of getting

1 weather information and data or navigational information from another source such as a
2 high frequency navigation system, you know narrow band direct printing or IMARSAT
3 system. Are you familiar with IMARSAT system?

4 **WIT:** [In audible] if you have a requirement for those other additional areas for
5 providing coverage. There's not a service of that nature. That's through satellite.

6 **Mr. Verdin:** I'm sorry. You broke up. I'm losing you in and out. Was that a yes, I'm
7 sorry?

8 **WIT:** IMARSAT Sea Safety Net would be the appropriate medium by which vessels
9 operating outside of 200 nautical miles would be that method for them to get those.

10 **Mr. Verdin:** Right, that's what I needed. A back up system that should be available.
11 Thank you.

12 **WIT:** Yes, sir.

13 **CAPT Phillips:** Thank you Mr. Verdin. I think you probably already covered this but I
14 want to make sure I fully understand the outage. So you said that you used a land
15 based pathway to get the signal from the Communications Center in Virginia down to
16 the remote station in New Orleans. Is that what I heard?

17 **WIT:** Yes, ma'am.

18 **CAPT Phillips:** So that would be an internet service?

19 **WIT:** Absolutely.

20 **CAPT Phillips:** And then the outage that we had on the day of the incident, April 13th
21 that was related to the internet's service?

22 **WIT:** Yes, ma'am.

1 **CAPT Phillips:** And that part of it is not a Coast Guard connection? You rely on an
2 internet service provider for that?

3 **WIT:** Correct. Correct we have Verizon as the internet service provider for the
4 connection between the Chesapeake Campus and our New Orleans site. And
5 obviously there would be [in audible] between Coast Guard at both sites as well as
6 Verizon to be able to determine where in that connection it, there was issue.

7 **CAPT Phillips:** Okay. But once the signal arrives at the remote station in New Orleans
8 that's all Coast Guard equipment and maintained by the Coast Guard?

9 **WIT:** Yes, ma'am.

10 **CAPT Phillips:** Okay. And if there's a power outage in New Orleans is there a backup
11 generator associated with that site?

12 **WIT:** Yes, ma'am.

13 **CAPT Phillips:** And does that automatically kick on if there's a power outage?

14 **WIT:** Yes, ma'am.

15 **CAPT Phillips:** Okay. I think that's all the questions that the Coast Guard and the
16 NTSB had. Before I wrap it up I would just like to ask you if there's anything else that
17 you would like to share with us that we haven't already asked about?

18 **WIT:** No, ma'am. Thank you for the opportunity today.

19 **CAPT Phillips:** Okay. Thank you very much for joining us today and giving us your
20 testimony. You are now released as a witness at this Marine Board Investigation
21 Hearing. Thank you for your cooperation. If I later determine that this board needs
22 additional information from you I will contact you via your counsel. If you have any

1 questions about this investigation you may contact Board Recorder Lieutenant Anthony
2 Alger.

3 **WIT:** Yes, ma'am.

4 **CAPT Phillips:** We will take a recess before our next witness. We will reconvene at
5 1525. The time is now 1507. This hearing is now in recess.

6 *The hearing recessed at 1507, 9 August 2021*

7 *The hearing was called to order at 1525, 9 August 2021.*

8 **CAPT Phillips:** The time is 1525, this hearing is now in session. This afternoon we're
9 going to hear testimony from Mr. Tommy Saunier from SEACOR Marine. Lieutenant
10 Alger can you please administer the oath?

11 **Recorder:** Good afternoon, sir. If you could you raise your right hand for me. A false
12 statement given to an agency of the United States is punishable by a fine and or
13 imprisonment under 18 U.S. Code 1001. Knowing this do you solemnly swear that the
14 testimony you're about to give will be the truth, the whole truth and nothing but the truth,
15 so help you God?

16 **WIT:** Yes.

17 **Recorder:** Please be seated. For the record, sir could you state your full name and
18 spell your last?

19 **WIT:** It's Thomas Donald Saunier, Jr.. S-A-U-N-I-E-R.

20 **Recorder:** Thank you, sir. And please identify your counsel.

21 **WIT:** Sir?

22 **Ms. Apps:** It's Antonia Apps, A-N-T-O-N-I-A, Apps, A-P-P-S.

23 **Recorder:** Thank you.

1 **CAPT Phillips:** Thank you Lieutenant Alger. I'm going to start off with some
2 background questions. Can you tell me where you currently work?

3 **WIT:** SEACOR Marine.

4 **CAPT Phillips:** What's your position there?

5 **WIT:** I'm a superintendent.

6 **CAPT Phillips:** And how long have you been in that position?

7 **WIT:** SEACOR, I imagine it was 6, 7 years now. Problem is, I started a long time ago.
8 I've been in the same company since 1977. They just kept jumping, different names.

9 **CAPT Phillips:** And can you tell us a little bit about what you do as a superintendent?

10 **WIT:** I do all Coast Guard and ABS repairs to get paperwork. And I do, when they got
11 a problem I make sure they get their parts.

12 **CAPT Phillips:** Did you work for any companies before, you said you started in 1977
13 with them?

14 **WIT:** No.

15 **CAPT Phillips:** Okay. Do you hold any professional licenses or certificates?

16 **WIT:** I had, but not right now.

17 **CAPT Phillips:** What did you have in the past?

18 **WIT:** 200 ton Master.

19 **CAPT Phillips:** Can you tell us how long you spent underway?

20 **WIT:** Ma'am?

21 **CAPT Phillips:** How much time did you spend out at sea?

22 **WIT:** A little more than 15 years. And then I moved in the office.

23 **CAPT Phillips:** What kind of boats were you Captain of?

1 **WIT:** All the way from the small ones, 60 footers all the way up to 230's.

2 **CAPT Phillips:** And were those crew boats or lift boats?

3 **WIT:** Lift boats.

4 **CAPT Phillips:** Who's your boss at SEACOR?

5 **WIT:** Joey Ruiz.

6 **CAPT Phillips:** And as a technical superintendent do you cover all of SEACOR's boats
7 or only a certain portion of them?

8 **WIT:** Only a certain portion of it unless I get pulled in to somebody else's for help. I
9 take care of, as of right I'm taking care of 3.

10 **CAPT Phillips:** And so there's other technical superintendents that take care of the
11 other boats?

12 **WIT:** Yeah.

13 **CAPT Phillips:** Which three are you taking care of right now?

14 **WIT:** Right now pulling the RESPECT out of stack, SEACOR EAGLE, and the
15 SEACOR HAWK.

16 **CAPT Phillips:** And you said that part of your job entails looking at all the Coast Guard
17 and ABS repairs. Does that mean you cover all the maintenance periods and the dry
18 docks?

19 **WIT:** Yes, ma'am.

20 **CAPT Phillips:** And have you been overseeing three boats for a while? Or does that
21 number go up and down? How does that change?

1 **WIT:** It's pretty much – it stays pretty much steady. But sometimes like I said I get
2 thrown into a boat for another superintendent to help or whatever. But yeah it's pretty
3 steady.

4 **CAPT Phillips:** Since you've been a superintendent roughly how many dry docks
5 would you say you've overseen?

6 **WIT:** Hmm. 18 or 20 for sure.

7 **CAPT Phillips:** When you shifted from being out at sea and coming to be a
8 superintendent did you get any special training to do that job switch?

9 **WIT:** No. I was always a self-start.

10 **CAPT Phillips:** You said you've probably overseen 18 to 20 dry docks. Have all those
11 been for lift boats or other types of vessels?

12 **WIT:** All lift boats.

13 **CAPT Phillips:** For those people in the room that might not be familiar with a lift boat
14 dry dock can you kind of walk us through what's unique about placing a lift boat in dry
15 dock versus other kinds of ships?

16 **WIT:** A lift boat you have the three legs. You have the jacking towers. You have the
17 gear boxes. There's not many boats that are pretty much flat on the bottom. And
18 you've got a lot more parts then you do with a floating boat.

19 **CAPT Phillips:** More parts in what sense?

20 **WIT:** Ma'am?

21 **CAPT Phillips:** You said there's a lot more parts.

22 **WIT:** Yeah. It's a lot more things to look at. You've got three load systems. You've got
23 fire systems, safety systems so on and so forth.

1 **CAPT Phillips:** And when a lift boat comes in to dry dock what is your primary focus
2 during that period?

3 **WIT:** I know in my head what I have to do. The first thing off the boat is going to be the
4 lift raft, the inflatables. Because they usually take a little bit more time. And I get fire
5 and safety there to start their work which is all fire extinguishers, all first aid kits, CO2
6 systems and I let them pretty much handle all the safety items. And then the Coast
7 Guard and the ABS come back and forth to check on me.

8 **CAPT Phillips:** Thank you. And how does the hull work or work on the legs wrap into
9 that?

10 **WIT:** Well the hull you have to do, memory you know, you have to do 3 and 5 years.
11 And that's really the 5 year, when you do the 5 year that's dry docking. That's putting it
12 on dry dock, checking pads and legs, checking the bottom of the rack. And seeing if
13 there's any hairline cracks or anything in it and fixing or repairing them. And all that is
14 NVT they do all kind of testing to it to make sure there's no cracks in it.

15 **CAPT Phillips:** What are some of the common failure points on lift boats? What are
16 you really focused in on to try and find any critical areas or issues?

17 **WIT:** I don't feel there's a common failure point. It's mostly standard regulation –
18 regulatory stuff that we have to do. I can't think of one thing that's – the cranes
19 probably takes longer than the boat does.

20 **CAPT Phillips:** Okay. How many times did you oversee a dry dock or an extended
21 maintenance period for the SEACOR POWER?

22 **WIT:** I think it was the last four.

23 **CAPT Phillips:** Last four dry docks or maintenance periods or both?

1 **WIT:** The last four dry dockings would be – I had a hull, a major hull in there. And I
2 think it was three topsides.

3 **CAPT Phillips:** And does SEACOR bring lift boats in for dockside maintenance periods
4 when they don't do dry dock, or do they save it all for the dry dock period?

5 **WIT:** No. We – the lift boats don't come in often. But when they hit the dock you know
6 you have stuff you have to fix because they're going to call you and they're going to tell
7 you. And we fix everything, I'm one that if I know something's wrong I have to fix it and I
8 fix it. If it comes in just for a day or so I fix what I can fix. But most of the time I can fix
9 everything they've got problems with.

10 **CAPT Phillips:** So would you say there's maintenance done on the vessels every time
11 they come in port?

12 **WIT:** You're probably – you're probably looking at 70 percent of the time. But it's little
13 nick pick stuff when you've got to get an outside party to go and fix something.

14 **CAPT Phillips:** Thank you. What was the most recent dry dock you conducted on the
15 SEACOR POWER?

16 **WIT:** That would have been in, my memory is not good, but probably March. With
17 dockside.

18 **CAPT Phillips:** In 2020 or 2021?

19 **WIT:** 2021.

20 **CAPT Phillips:** So about a month before the incident?

21 **WIT:** Yes, ma'am. Like I said my dates could be wrong. It could have been January to
22 March.

1 **CAPT Phillips:** Okay. Do you remember what kind of work was done on there when
2 she was in for that period?

3 **WIT:** I had to – we did the annuals on the cranes. We – all your floatation inflatable
4 rafts were sent for repair and maintenance. Fire system was checked, the CO2's, this is
5 all the stuff we do pretty much every time. Engines, they come and do PM's on all the
6 engines. I've got a list. We do a lot. Check all the life jackets, check everything.

7 **CAPT Phillips:** You said PMs is that preventative maintenance?

8 **WIT:** Preventative maintenance.

9 **CAPT Phillips:** Thank you. So you went through the list and did everything that was
10 on your list.

11 **WIT:** Yes, ma'am.

12 **CAPT Phillips:** Anything that wasn't on the list that you had to work on?

13 **WIT:** They had a dent in the side shell that we repaired. Another SEACOR boat,
14 floating boat hit it during a storm. And I didn't want to leave it like that.

15 **CAPT Phillips:** Do you remember where the dent was?

16 **WIT:** Mid-ship I think it was starboard side. It wasn't a super bad dent it was just
17 something that I didn't like it where it was.

18 **CAPT Phillips:** Okay. What would you say was the overall general condition of the
19 hull during that dry dock?

20 **WIT:** Good.

21 **CAPT Phillips:** Would you go inside of tanks during the dry dock?

22 **WIT:** Ma'am?

23 **CAPT Phillips:** Did you go inside of any of the tanks?

1 **WIT:** I had to go in a few. But visually everything was okay.

2 **CAPT Phillips:** How did you decide to go into those few that you went in?

3 **WIT:** I went in because we had – the hatches needed to be changed. The deck
4 hatches.

5 **CAPT Phillips:** So during the dry dock you put on new hatches?

6 **WIT:** All new?

7 **CAPT Phillips:** New hatches?

8 **WIT:** Just the ones that I had to fix. If that sealing area is rotted or rusted out I just
9 change them.

10 **CAPT Phillips:** Thank you. What would you say the condition of the engine room
11 was?

12 **WIT:** Good.

13 **CAPT Phillips:** Was it clean?

14 **WIT:** Yes.

15 **CAPT Phillips:** Was there any engineering equipment that wasn't working?

16 **WIT:** Not that I remember.

17 **CAPT Phillips:** You talked about doing the fire system checks. Does that involve the
18 fire pumps as well?

19 **WIT:** Yes.

20 **CAPT Phillips:** And do you check the fire pumps or do you bring in a contractor to
21 check that?

22 **WIT:** Most of the time if I'm not having problems with them, no we just check the
23 pressures and when Coast Guard come they usually do a fire drill anyway.

1 **CAPT Phillips:** If there were problems?

2 **WIT:** If there were problems it would show up and they didn't show up.

3 **CAPT Phillips:** Okay.

4 **WIT:** They always have a spare.

5 **CAPT Phillips:** Then you – do you check the bilge pumps as well, do you test those?

6 **WIT:** Yes.

7 **CAPT Phillips:** Were those working?

8 **WIT:** Yes.

9 **CAPT Phillips:** How about the bilge alarms?

10 **WIT:** All of it was checked, all of it was working. That's part of the automation and I
11 have an electrician that comes in and does automation and electrical.

12 **CAPT Phillips:** So would the electrician have checked the bilge alarms or would that
13 be something ----

14 **WIT:** Yes and I'm sure a bunch of those alarms were called when Coast Guard came
15 for the check to check it.

16 **CAPT Phillips:** But you don't remember checking them yourself?

17 **WIT:** No.

18 **CAPT Phillips:** What kind of work did you do related to the watertight doors?

19 **WIT:** Checked all the gaskets, chalked the doors, make sure it was sealing against the
20 rubber gasket. Some of the gaskets we probably had to change.

21 **CAPT Phillips:** Do you remember changing any in the last dry dock of the SEACOR
22 POWER?

23 **WIT:** We usually always have one or two we have to change.

1 **CAPT Phillips:** Do you remember, is there a checklist for checking all those watertight
2 doors or do you just walk around and check them all?

3 **WIT:** Well usually, we usually check them all. But then when ABS comes they
4 checking them. And I kind of depend on them. If I've got a problem they're going to tell
5 me.

6 **CAPT Phillips:** Okay. Can you tell me what your process is to check a watertight
7 door? You said you dog them all down and then what do you do?

8 **WIT:** Well they really just look around at all the chalk marks where we chalked them
9 and make sure they sealed. I'm more worried about the bottom floor which is watertight
10 because that's the hardest gasket. So I make sure those are perfect and then we have
11 the weather tight above.

12 **CAPT Phillips:** Thank you. When the SEACOR POWER is out and she's on a job and
13 she comes up next to the rig and jacks up, is she considered, is her deck considered a
14 hazardous area?

15 **WIT:** Yes.

16 **CAPT Phillips:** So is the electrical equipment on the deck on the SEACOR POWER
17 intrinsically safe or explosion proof or something like that?

18 **WIT:** There's not a whole lot of electrical equipment on the deck. Fire pumps in the
19 stern. That's all – breakers - but to answer you honestly I can't tell you if it's all
20 intrinsically safe.

21 **CAPT Phillips:** Okay. What kind of work do you do on tank vents when she's in dry
22 dock?

1 **WIT:** Check all the balls, all the screens. If there's any damage they're usually
2 replaced. We've got vendors we buy them from and we replace them.

3 **CAPT Phillips:** Do you remember if you had to replace any on the SEACOR POWER
4 after the last dry dock?

5 **WIT:** Not on this docking.

6 **CAPT Phillips:** Do you know what kind of emergency lighting is inside the super
7 structure of the SEACOR POWER?

8 **WIT:** I know it was on every floor. And as long as they didn't lose the battery it would
9 be lit. Because you see them outside and inside. That's something you always look at.

10 **CAPT Phillips:** And sorry, did you just say that's battery powered? Or run by the
11 emergency generator?

12 **WIT:** The battery power when you lose your power.

13 **CAPT Phillips:** So it's an individual battery for each light or it's a battery bank?

14 **WIT:** It's usually a system. In other words they usually have one or two batteries that
15 feed the whole system.

16 **CAPT Phillips:** What kind of test do you do on that during a dry dock?

17 **WIT:** We just make sure they all work.

18 **CAPT Phillips:** Do you do that by turning off the power or is there a test button.

19 **WIT:** Yeah we usually go dark ship.

20 **CAPT Phillips:** Do you remember doing that on the SEACOR POWER?

21 **WIT:** Yes, ma'am.

22 **CAPT Phillips:** Any problems?

23 **WIT:** No, ma'am.

1 **CAPT Phillips:** Do you have a timeframe for how often you have to look at the legs or
2 the pads on a lift boat?

3 **WIT:** Well visually on the legs I look at the legs every Coast Guard. But it's on a 5 year
4 rotation where we have to dry dock and pads and legs, bottoms.

5 **CAPT Phillips:** Do you remember if there was any work done on the legs or the pads
6 during the most recent dry dock?

7 **WIT:** That would have been the dry dock before, no, ma'am.

8 **CAPT Phillips:** Lieutenant Alger can you bring up Exhibit 73 please [showing Exhibit].
9 This was shared with us, if I'm thinking of the right thing I think it's an ABS report. And
10 it's labeled as ABS photos 16 March 2020. Go to the next, that picture there so we can
11 see she's up and out of the water. There's a time stamp on that from March of 2020.
12 Can you go to page 2 please? And one more. I think we're looking at the wrong
13 Exhibit. Do you remember this dry dock in March of 2020?

14 **WIT:** Yes, ma'am.

15 **CAPT Phillips:** Do you remember if there were any repairs?

16 **WIT:** All the shafts were pulled, the wheels were pulled. They may have had a couple
17 hair line cracks on the pads. But that's right where the doubler and the leg meet. It's
18 not really usually too big, maybe 2 to 3 inches.

19 **CAPT Phillips:** So what kind of repairs would you have done for those cracks?

20 **WIT:** They gouged it out and you got so much time in between welds. You've got to
21 wait for, heat it up and weld it. And then they come in with UT and UT everything out.
22 Two or three times during that process.

1 **CAPT Phillips:** Thank you Lieutenant Alger. Can you tell me a little bit about the pads
2 on the SEACOR POWER?

3 **WIT:** In what?

4 **CAPT Phillips:** Are they wet or dry?

5 **WIT:** They're wet. The bottom of the pad is open. Except for the square box where the
6 leg comes into the pad. Everything else is wet.

7 **CAPT Phillips:** Okay. So that square box that's in the middle right where the leg comes
8 in you said?

9 **WIT:** Yeah.

10 **CAPT Phillips:** And that part is dry?

11 **WIT:** Yeah.

12 **CAPT Phillips:** Do you have any process to check to make sure that dry part is
13 watertight during a dry dock?

14 **WIT:** We have to pull the plugs on that box.

15 **CAPT Phillips:** Where are the plugs?

16 **WIT:** It's up – underneath where the box is at.

17 **CAPT Phillips:** Was there any water in there during this dry docking?

18 **WIT:** No, ma'am.

19 **CAPT Phillips:** How about the legs. Do you have process to check and see if there is
20 any water in the legs?

21 **WIT:** We usually know. If there's water in the legs because she list. There was no
22 signs of any water in the leg.

23 **CAPT Phillips:** What would be a sign that would show you had water in there?

1 **WIT:** There was no sign.

2 **CAPT Phillips:** What kind of signs are you looking for?

3 **WIT:** If the boat's listing before we get on dry dock. Or we get on dry dock and the
4 water is pouring out of the leg. You know and otherwise if she's stable and level it's not
5 a problem with water in the leg. Because that's a big leg. And she's going to list pretty
6 bad.

7 **CAPT Phillips:** How about in the aft leg if you were taking on water in the aft leg?

8 **WIT:** It would be the same thing she would list to the stern more.

9 **CAPT Phillips:** Are there any kind of alarms inside of the leg to detect water?

10 **WIT:** No.

11 **CAPT Phillips:** I have a couple questions about the jacks. Do you know how fast the
12 jacks operate on the SEACOR POWER?

13 **WIT:** Not right off the bat. But she wasn't super quick.

14 **CAPT Phillips:** And for folks who might not be familiar with it can you explain a little bit
15 about how the jacking mechanism works?

16 **WIT:** It's a hydraulic, it's a hydraulic powered system. You have gear boxes and
17 hydraulic motors with brakes and counter balance valves with each gear box. And you
18 turn it, put the PTO's on to get the hydraulic power to the leg and then you in the
19 wheelhouse you flip the switches and the leg either goes up or down.

20 **CAPT Phillips:** What kind of inspection do you do on the jacks themselves?

21 **WIT:** We look at the rack and the pinions.

22 **CAPT Phillips:** And what are you looking for on those?

1 **WIT:** Any wear, any out of, in other words you're going to tell when – if you got
2 something broke.

3 **CAPT Phillips:** The SEACOR POWER we heard she had 265 foot legs. Is that
4 measuring the total length of the legs or the length above the main deck?

5 **WIT:** Total length.

6 **CAPT Phillips:** So approximately how high would you say the legs reach above the
7 main deck?

8 **WIT:** Probably 225 above the tower. It could be less than that because the
9 measurements I don't exactly know right off.

10 **CAPT Phillips:** Do people measure the length of the leg from the bottom of the pad or
11 the top of the pad?

12 **WIT:** Top of the pad.

13 **CAPT Phillips:** Top of the pad. To the top, very top of the leg?

14 **WIT:** Umm huh.

15 **CAPT Phillips:** Okay. Tell us a little bit about the cranes on the SEACOR POWER?

16 **WIT:** The what?

17 **CAPT Phillips:** The cranes.

18 **WIT:** Those were wrapped around the leg, the tower. It's a sea jack crane, 175 ton.
19 You had one on port and starboard.

20 **CAPT Phillips:** And is this configuration where she wraps around the legs is that usual
21 or is that unusual?

22 **WIT:** No they built them that way, different companies. The company in Lafitte built
23 them like that.

1 **CAPT Phillips:** It's on other lift boats too?

2 **WIT:** Huh?

3 **CAPT Phillips:** That arrangement is on other lift boats as well?

4 **WIT:** Yeah.

5 **CAPT Phillips:** And I think you said you did the check on them. What kind of work did
6 you check on the cranes?

7 **WIT:** They go through an annual check. Sea Tracks goes through an annual check of
8 – and if it's not in the – after the 5 – if it's not over the 5 year period they have to do a
9 load test. But they go through the whole crane and any leaks, anything that needs to be
10 fixed they fix.

11 **CAPT Phillips:** And you said that was Sea Tracks that comes in and does that?

12 **WIT:** Umm huh. Sea Tracks is the manufacturer and the builder of those cranes.

13 **CAPT Phillips:** Thank you. Overall what were your findings from the last dry dock?

14 **WIT:** I couldn't tell you right off the bat. Because I go from one to the other pretty
15 quick. You would have to look at your reports, which would be, you know it would all be
16 on your reports or ABS's reports.

17 **CAPT Phillips:** Lieutenant Alger could you bring up Exhibit 202 please [showing
18 Exhibit]. There are some things on the SEACOR POWER that I'm not familiar with. So I
19 was hoping you could walk me through some of those things.

20 **WIT:** Okay.

21 **CAPT Phillips:** Let's start on page 100 please. So if I have my orientation correct I
22 think this is aft of the super structure. If you were to look further on the left hand side of
23 the screen I think you would see the helo deck.

1 **WIT:** That's on the starboard side aft.

2 **CAPT Phillips:** What's the equipment that's not on the top deck but right underneath?

3 There's kind of racks with pipes going into them?

4 **WIT:** You're talking about the gray stuff, the squares? The cooling towers?

5 **CAPT Phillips:** I see a white structure that comes up vertically off of that grating and
6 then it's got two cylinders kind of up top and a structure in between. And then there's a
7 pipe coming up from down below going into the – with a 90 degree bend in that area.

8 **WIT:** I'm trying to see which. Okay that's the radiators. That's the cooling towers for
9 the inboard main engines and the generators.

10 **CAPT Phillips:** Thank you. And then underneath those on the left hand side there's
11 some black, looks like 5 gallon buckets. Do you know what's stored in there?

12 **WIT:** No I don't know for sure what they had in there.

13 **CAPT Phillips:** Okay. Then can we look at page 137 please? I think this is in the
14 engine control room, does that sound right?

15 **WIT:** Yep. MCC room. That's in between the engine rooms.

16 **CAPT Phillips:** What is this big horizontal cylinder with the vertical cylinders coming off
17 of it?

18 **WIT:** Are you talking about the black ones?

19 **CAPT Phillips:** The black ones, yeah.

20 **WIT:** That's the, it looks like the return filters for the hydraulic system.

21 **CAPT Phillips:** It's for the hydraulic system, okay. And then what are the boxes and
22 other things stored around and under that -----

23 **WIT:** It's just spare parts.

1 **CAPT Phillips:** Okay. 138 please. Is that in that same area?

2 **WIT:** Yeah.

3 **CAPT Phillips:** Okay. Can we go to 257 please? This is the forward main deck
4 correct?

5 **WIT:** Right in front of the super structure.

6 **CAPT Phillips:** What's the box there in the middle that says SEACOR POWER with an
7 orange stripe across the bottom?

8 **WIT:** Grocery box.

9 **CAPT Phillips:** Groceries.

10 **WIT:** Groceries. They said they had filled it up with groceries, bring it back and unload
11 it.

12 **CAPT Phillips:** Okay. And does that get connected to anything or just sits there?

13 **WIT:** Ma'am?

14 **CAPT Phillips:** Is it refrigerated? So would it have an electrical connection?

15 **WIT:** No. No electric.

16 **CAPT Phillips:** It's just dry storage.

17 **WIT:** Just dry.

18 **CAPT Phillips:** And it comes on for every trip?

19 **WIT:** Usually it stays at the dock and it just comes on just when you're getting
20 groceries. Just when they're getting groceries to unload groceries to the house.

21 **CAPT Phillips:** Do they take it off before they get underway?

22 **WIT:** Usually. Yeah usually. And they bring it for the dock with the groceries on it.

23 **CAPT Phillips:** Thank you. 273 please. Do you know which area this is?

1 **WIT:** Galley.

2 **CAPT Phillips:** Galley.

3 **WIT:** Umm huh.

4 **CAPT Phillips:** Do you know if these pieces of equipment are secured to the deck at
5 all or to the bulkhead?

6 **WIT:** They're all – the boxes and ice boxes and the milk machines and that's all
7 secured.

8 **CAPT Phillips:** Do you know how it's secured? Is it on the deck or straps or?

9 **WIT:** I wanted to say screwed into the wall and the deck.

10 **CAPT Phillips:** Thank you. 294 please. And this looks like it's aft of the pilot house?

11 **WIT:** Aft of the pilot house, top deck.

12 **CAPT Phillips:** Are those all air conditioners in the back or are there other things back
13 there?

14 **WIT:** All air conditioners.

15 **CAPT Phillips:** Thank you. And, yeah you can flip to 295. Do you know what's
16 covered by the white coverings there?

17 **WIT:** I'm not sure what they had in there.

18 **CAPT Phillips:** Okay. So we talked a lot about the last dry dock on the SEACOR
19 POWER, how about the dry docks before that? Thank you Lieutenant Alger. Were you
20 involved, you said you were involved in a couple more before that.

21 **WIT:** Yes.

22 **CAPT Phillips:** Do you remember anything notable from any of those dry docks?

23 **WIT:** No, ma'am.

1 **CAPT Phillips:** Any big projects that had to be done in any of those?

2 **WIT:** No, ma'am.

3 **CAPT Phillips:** Were there any major changes to the vessel over the last 5 or 10
4 years?

5 **WIT:** No, ma'am.

6 **CAPT Phillips:** Any modification of any kind?

7 **WIT:** No, ma'am.

8 **CAPT Phillips:** Were you working for the company when they lengthened the legs on
9 the SEACOR POWER?

10 **WIT:** Yes, ma'am.

11 **CAPT Phillips:** Do you remember that project?

12 **WIT:** Yes, ma'am.

13 **CAPT Phillips:** Do you know why they extended the legs?

14 **WIT:** To give it a greater working water depth.

15 **CAPT Phillips:** Do you have any more details about what they did to do that leg
16 extension?

17 **WIT:** I know it was done at SEMCO in Lafitte and I'm almost sure they had all the legal
18 stuff done on them. You know all the approvals.

19 **CAPT Phillips:** Okay. Thank you very much. I'm going to pause and see if there's
20 questions from any of the Coast Guard or NTSB folks. I'll turn it over to Mr. Ehlers to
21 start with.

22 **Mr. Ehlers:** Good afternoon Mr. Saunier.

23 **WIT:** Thank you.

1 **Mr. Ehlers:** Just a couple follow up questions. You mentioned in March of 2021 the
2 dry dock there was some side shell that had been dented, it got repaired.

3 **WIT:** Yes, sir.

4 **Mr. Ehlers:** Where was that dent? Was it near the waterline? Was it up near the main
5 deck? Where was that dent, do you remember?

6 **WIT:** It ran pretty much vertical, the whole side shell right at that area.

7 **Mr. Ehlers:** So it went down below the waterline?

8 **WIT:** Yes.

9 **Mr. Ehlers:** And was the side shell plating replaced or was it?

10 **WIT:** Yeah it was all replaced. All the framing to it and ABS was involved with that
11 whole, you know that whole thing.

12 **Mr. Ehlers:** And how much plating do you think was replaced? Do you have a square
13 footage?

14 **WIT:** Not right off the bat.

15 **Mr. Ehlers:** Okay can you estimate how -----

16 **WIT:** Probably a 3 foot by 6 section.

17 **Mr. Ehlers:** Okay. Three foot wide and six foot tall?

18 **WIT:** Yeah.

19 **Mr. Ehlers:** Was there any work done with the rudder packing on that?

20 **WIT:** Not that I know of.

21 **Mr. Ehlers:** Shaft seals?

22 **WIT:** No. That's all handled by the crew. That's all handled by the crew.

1 **Mr. Ehlers:** Okay. That gets to my next question. What maintenance does the crew
2 do? That's a big question, but do they do any metal work?

3 **WIT:** No.

4 **Mr. Ehlers:** How about maintenance on the engines?

5 **WIT:** No. Well let me take that back. If they've got a part that's bad on the engine we'll
6 send them the part and they change it. Engineer is qualified to do that. As long as it's
7 not a major.

8 **Mr. Ehlers:** So overhauls are done by a third party?

9 **WIT:** Yeah.

10 **Mr. Ehlers:** Same with the generators as well?

11 **WIT:** Yeah.

12 **Mr. Ehlers:** Is there a lock out, tag out program?

13 **WIT:** Yes, sir.

14 **Mr. Ehlers:** And how is the crew trained on that?

15 **WIT:** They got it pretty much extensively. They know they've got to lock breakers out
16 with pad locks, keys, there's only one key. And there's paperwork you've got to fill out
17 every time.

18 **Mr. Ehlers:** What other things you mentioned breakers and locks, what other things are
19 subject to lock out and tag out?

20 **WIT:** Anything with stored energy. Pretty much any repair going on anything that can
21 be activated has to be locked out and tagged out.

22 **Mr. Ehlers:** Okay.

1 **WIT:** That's either from the main panel or from anywhere and you've got to put a pad
2 lock and a lock on it that can't be turned on.

3 **Mr. Ehlers:** What about through hull fittings, valves associated with through hull
4 fittings?

5 **WIT:** That what now?

6 **Mr. Ehlers:** Through hull penetrations, valves associated with through hull
7 penetrations.

8 **WIT:** You have some valves that are chained and locked for the sewage system and
9 there, I think there's some in the engine room too with the, not sure.

10 **Mr. Ehlers:** Alright. Thank you, sir.

11 **CAPT Phillips:** Thank you Mr. Ehlers. Mr. Muise.

12 **Mr. Muise:** Good afternoon, sir. Do requisitions from the crew for equipment and
13 maintenance consumables, do those go to you or somebody else?

14 **WIT:** They go to operations.

15 **Mr. Muise:** Who would that be?

16 **WIT:** Paul Fremin.

17 **Mr. Muise:** Thank you, sir. That's all I have Captain.

18 **WIT:** Unless it's something I'm handling. Some of the stuff they call me direct and I
19 handle that and then I make them send it in. But it's still got to go through Paul.

20 **Mr. Muise:** So those would be projects that you put your hands on that you're
21 supervising yourself. But I'm talking about routine maintenance.

22 **WIT:** That would be Paul.

23 **Mr. Muise:** Thank you, sir.

1 **CAPT Phillips:** Thank you Mr. Muise. Mr. Kucharski.

2 **Mr. Kucharski:** Yes thank you Captain. Thank you for being here Mr. Saunier. When
3 Captain Phillips was asking you about your job, is your job somewhere in the Fleet
4 Operations Manual, is the description in there?

5 **WIT:** I'm – if I understand you right I'm mostly technical repairs and maintenance. I
6 don't have anything to do with the operations side.

7 **Mr. Kucharski:** Did the company ever have a technical manager position?

8 **WIT:** No. Unless Joey would be a technical manager.

9 **Mr. Kucharski:** Could we, Lieutenant Alger pull up Exhibit 78, and 78C [showing
10 Exhibit]. That's at page 170. Page 1-7-0. Just scroll up. There is is. I'm trying to
11 understand the technical and operations managers it says there. So are you
12 considered a technical manager?

13 **WIT:** I'm not a technical manager. I'm just a superintendent that makes the repairs
14 happen. I guess that's the only way I can explain it.

15 **Mr. Kucharski:** So do you have interplay with the operations manager?

16 **WIT:** Sir?

17 **Mr. Kucharski:** Do you have interplay, do you work together with the operations
18 manager?

19 **WIT:** Yeah.

20 **Mr. Kucharski:** And would you be able to do any of the work that he does?

21 **WIT:** Please ask again?

22 **Mr. Kucharski:** Would you be able to perform any of the jobs that he's assigned to do
23 by the Fleet Operations Manual?

1 **WIT:** Yes, yes.

2 **Mr. Kucharski:** You would. So any of the jobs that he does would you be able to do
3 them all?

4 **WIT:** Yes.

5 **Mr. Kucharski:** And so as a technical manager, or a technical superintendent, I'm
6 sorry. So you take care of repairs both deck and engine, top to bottom?

7 **WIT:** Yes.

8 **Mr. Kucharski:** Could we pull up Exhibit 1 – 59, sorry. Page 120 please [showing
9 Exhibit]. And the section, yeah securing the cranes, securing the crane. Item number 3
10 says secure the load blocks. How would they secure the load blocks on the SEACOR
11 POWER?

12 **WIT:** They usually, I'm not sure about the POWER ones. They usually have a box on
13 the deck and let it down. But the POWER it's a different kind of crane. When you suck
14 it up into the head it's secured.

15 **Mr. Kucharski:** Okay. So in item number 4 where it says set boom snubbers or secure
16 boom by taking tension on load line with load block, that doesn't apply – does that apply
17 to the SEACOR POWER?

18 **WIT:** Yes.

19 **Mr. Kucharski:** It does. So they would take tension on the load block? On the load
20 line with the load block secured? So I'm trying to understand how they secure the load
21 block.

22 **WIT:** Like I said if I remember right the SEACOR POWER has a catch. When you suck
23 that load block in it's in that frame and that's how she stays.

1 **Mr. Kucharski:** So there's nothing on the deck or anything like this?

2 **WIT:** The winch package is on the boom so it don't move when you boom up and
3 down.

4 **Mr. Kucharski:** Thank you. Do you oversee anything that the Master or the Chief
5 Engineer do?

6 **WIT:** No. I'm only called if they need something.

7 **Mr. Kucharski:** So you don't review any of the procedures that are supposed to be
8 carried out by the Operations Manual?

9 **WIT:** No.

10 **Mr. Kucharski:** Did you conduct vessel visits?

11 **WIT:** Yes.

12 **Mr. Kucharski:** Did you write up any reports for your vessel visits?

13 **WIT:** I have to write a report saying I visited the vessel, yes.

14 **Mr. Kucharski:** Is that all it says? Does it say what you did or what you looked at while
15 you were out there?

16 **WIT:** I can – you can add notes into it. But usually it's just a visit because they're in for
17 so short of a time.

18 **Mr. Kucharski:** Lieutenant Alger, sorry to make you go back to Exhibit 59. But would
19 you please go back there. And let's look at page 287 [showing Exhibit]. I know you
20 said there's no alarms in the legs but can you tell me what I'm looking at here where it
21 says leg high water alarms?

22 **WIT:** That's a – looks like a picture of from looking down at the deck with the three legs,
23 the three leg towers.

1 **Mr. Kucharski:** So it says leg high water alarms, that's why I'm a little bit confused. So
2 are there none on there?

3 **WIT:** That would be in the rudder room and in the engine rooms.

4 **Mr. Kucharski:** So that diagram is wrong there were none on the legs?

5 **WIT:** That's what it would be right in the engine rooms.

6 **Mr. Kucharski:** I'm sorry.

7 **WIT:** You got, I think they're kind of showing you where they're at when you look at the
8 engine rooms. You got one in the – you got two, the bulkhead, but you got one in the
9 port engine room and one in the starboard engine room. And there's probably two in
10 the MCC room. Which is the middle engineering room.

11 **Mr. Kucharski:** So your answer is that this is incorrect then, there were no leg alarms

12 **WIT:** They're missing one. Unless it's just not in the right spot. You're also not
13 showing the one in the rudder room.

14 **Mr. Kucharski:** Right. But if you scroll up a little bit it shows you, it say leg high water
15 alarms. This is only for the legs.

16 **WIT:** Years ago when the boat was built there was lights on the top of the legs. But
17 you always have trouble with them. So over the 19 years they got removed.

18 **Mr. Kucharski:** So was Class ever notified that those alarms were removed?

19 **WIT:** Sir?

20 **Mr. Kucharski:** Was ABS or Class notified that those alarms were removed?

21 **WIT:** They have to be notified. That was out of my realm.

22 **Mr. Kucharski:** No further questions. Thank you.

23 **CAPT Phillips:** Thank you Mr. Kucharski. Mr. Ehlers.

1 **Mr. Ehlers:** My apologies Mr. Saunier I do have a follow up question. Lieutenant Alger
2 can you bring up Exhibit 202 again [showing Exhibit]. And advance to page 278. In this
3 picture what I want to draw attention to are these two orange squares here.

4 **WIT:** Yes, sir.

5 **Mr. Ehlers:** On the deck. And then Lieutenant Alger can you go to page 212? And
6 then in this photograph you can see that the plate, it looks like it's actually a metal plate
7 that's been welded on deck. My question is do you know why that plate is there? Is
8 that a doubler plate or what purpose is that plate for and the other plate just like it?

9 **WIT:** We were doing snubbing work and the snubbing head they had mounts that
10 would mount right on top of the doubler plates. And they would leave it stacked up.

11 **Mr. Ehlers:** Okay. Can you explain what snubbing work is?

12 **WIT:** It goes to a well. It's almost like a rigless repair to the well. They go in there with
13 pipe and do the work inside the well. But it's got a big old head, I'm guessing on the
14 length of it but it's probably 20 to 30 foot tall. And they just leave it standing up. And
15 then they put it on the well.

16 **Mr. Ehlers:** Okay. So what purpose does the plate serve then? The plate on the deck.

17 **WIT:** The plate is just for the weight of that head. Spread that weight out.

18 **Mr. Ehlers:** I see. Okay, thank you.

19 **CAPT Phillips:** Thank you Mr. Ehlers. Mr. Kucharski.

20 **Mr. Kucharski:** Yes, ma'am. Just one quick follow up question. Mr. Saunier did you
21 get any documentation, records, log books anything like that came from the vessel to
22 your office?

23 **WIT:** No everything is computer now.

1 **Mr. Kucharski:** So did you see those? What did you see from the vessel that was on
2 the computer?

3 **WIT:** Not anymore, no. In the old days I did. Now everything is computerized.
4 Everything goes into the HELMS system. And the HELMS sends me notification of
5 repairs.

6 **Mr. Kucharski:** So in the old days did you used to get any log books that came
7 ashore? Did you get the Engineering log book come ashore?

8 **WIT:** Repeat, sir.

9 **Mr. Kucharski:** Did the Engineering log book come ashore to you?

10 **WIT:** Did they keep the records on shore?

11 **Mr. Kucharski:** Yeah. Did they keep the log book in the engine room, did that – did
12 you see that? Did that come ashore to you to look at all?

13 **WIT:** I'm not understanding.

14 **Ms. Apps:** Mr. Kucharski I might help with -----

15 **Mr. Kucharski:** Did you see copies of the Engineering log book in the office in the old
16 days?

17 **WIT:** In the Engineers log, yes.

18 **Mr. Kucharski:** You did, the Engineers log. How about the deck log, did you see that
19 also come?

20 **WIT:** The what log? Deck log?

21 **Mr. Kucharski:** The deck log, the bridge log.

22 **WIT:** No.

23 **Mr. Kucharski:** Okay, thank you.

1 **CAPT Phillips:** Thank you Mr. Kucharski. Mr. Verdin.

2 **Mr. Verdin:** Thank you Captain. Mr. Saunier are you a maintenance guy or a Port
3 Captain?

4 **WIT:** Maintenance guy.

5 **Mr. Verdin:** So you're in charge of all maintenance and reports and stuff that comes in
6 to the office from the vessels.

7 **WIT:** Yes.

8 **Mr. Verdin:** Tracking everything in the maintenance department.

9 **WIT:** It all goes into HELM. If they need repairs I'm the one that does the repairs.

10 **Mr. Verdin:** Okay so if repairs are needed, such as special repairs, shipyard dry docks,
11 you're the guy. You also keep track of the – do you keep track of the maintenance, the
12 daily maintenance like oil records, oil samples, do you check any of the maintenance ---
13 --

14 **WIT:** I keep copies of that for the ones that I handle.

15 **Mr. Verdin:** Okay.

16 **WIT:** So I can look at the oil sample if they send them to me.

17 **Mr. Verdin:** Okay. That's what I needed, thank you.

18 **CAPT Phillips:** Thank you Mr. Verdin. At this point I'm going to see if the parties in
19 interest have questions. I'm going to start with the representative for the First Matge.

20 **Mr. Sterbcow:** Thank you Captain. Mr. Saunier my name is Paul Sterbcow I represent
21 First Mate Bryan Mires who was on the boat. Do you have an office with a computer,
22 your own office and your own computer?

23 **WIT:** Yes.

1 **Mr. Sterbcow:** What records come directly to you on your computer with respect to
2 your job as the maintenance guy?

3 **WIT:** As far as paper coming to me for repairs I don't get much it's all verbal.

4 **Mr. Sterbcow:** Do you receive emails?

5 **WIT:** Very seldom. It's mostly verbal. They call me.

6 **Mr. Sterbcow:** They call you. And the calls that you get are they normally from the
7 actual vessel crew to let you know hey we had an issue with whatever?

8 **WIT:** Yeah, the Captain.

9 **Mr. Sterbcow:** Captain will call you, okay. Well then do you regularly use your
10 computer for your work or is it something that you don't really have to?

11 **WIT:** It's not, I carry it with me. And sometimes I have to do reports like for the Coast
12 Guard and ABS I have reports I have to do.

13 **Mr. Sterbcow:** Okay.

14 **WIT:** But that's it.

15 **Mr. Sterbcow:** So you report, Coast Guard and ABS reporting that's all done via your
16 computer?

17 **WIT:** Yeah.

18 **Mr. Sterbcow:** Okay. What is the HELM system? What is that? HELM, you
19 mentioned a HELM system.

20 **WIT:** That's a new maintenance program they came up with. It tracks everything to do
21 with both engines, maintenance, everything.

22 **Mr. Sterbcow:** Strictly the engines?

23 **WIT:** No strictly the ----

1 **Mr. Sterbcow:** The boat?

2 **WIT:** The boat.

3 **Mr. Sterbcow:** Do you get that information on your computer?

4 **WIT:** I'll get a notice. When they send something and my name is attached to it, it
5 comes to my phone.

6 **Mr. Sterbcow:** Alright.

7 **WIT:** Like I'll give you an example. Like right now a hose on a crane, they need a new
8 hose. I've got it on my phone telling me they need a new hose.

9 **Mr. Sterbcow:** Okay. Do you know who else with SEACOR, names or job titles whose
10 computers would have access to the information on the HELM system?

11 **WIT:** Paul.

12 **Mr. Sterbcow:** Paul you mentioned before.

13 **WIT:** Yeah.

14 **Mr. Sterbcow:** Anybody else that you're aware of?

15 **WIT:** I'm not, I wouldn't know I think it goes to Paul but I don't know if it goes to
16 anybody else.

17 **Mr. Sterbcow:** Okay, fair enough. Do you know when the high water alarm on the legs
18 was removed?

19 **WIT:** No.

20 **Mr. Sterbcow:** Do you know who removed them?

21 **WIT:** No.

22 **Mr. Sterbcow:** Do you know if that's documented anywhere, that activity?

23 **WIT:** I don't know.

1 **Mr. Sterbcow:** In your job, say go back 10 years, would you ever have the occasion to
2 ride with the SEACOR POWER either in Bayou LaFouche or anywhere offshore so that
3 you could personally check the performance of the boat at sea or is that not something -
4 ----

5 **WIT:** I have. I have.

6 **Mr. Sterbcow:** When's the last time?

7 **WIT:** Not running it, but I've lived on it.

8 **Mr. Sterbcow:** You lived on a ----

9 **WIT:** I lived on it, but I did years ago ride on it.

10 **Mr. Sterbcow:** How long ago was that?

11 **WIT:** Probably 7, 8 years.

12 **Mr. Sterbcow:** Are you aware of any other SEACOR shore side based personnel who
13 would ride the SEACOR POWER while she was at sea to check on her operational
14 performance? Other than the crew?

15 **WIT:** No, sir.

16 **Mr. Sterbcow:** Were you made aware of any damage to the SEACOR POWER on the
17 last voyage prior to April 13th?

18 **WIT:** April 13th is when they – the last incident.

19 **Mr. Sterbcow:** The day of the accident was April 13th. Are you ----

20 **WIT:** Okay.

21 **Mr. Sterbcow:** Go ahead.

1 **WIT:** Paul called me and told he had lost a life raft. And after they got in I found out
2 that they had some grating that was loose on the crane. So I got another raft. I got
3 another rack for the raft and a hydrostatic release. And that was all shipped.

4 **Mr. Sterbcow:** That was shipped you said to the, okay.

5 **WIT:** It was shipped to the boat because the Captain told me he got the raft.

6 **Mr. Sterbcow:** And was all that equipment installed on the boat before this voyage?

7 **WIT:** I don't know.

8 **Mr. Sterbcow:** You don't know. Or you wouldn't have been involved in it. Did Paul tell
9 you what caused them to lose that life raft?

10 **WIT:** No.

11 **Mr. Sterbcow:** The dent that you talked about earlier. How would that dent repair be
12 tested for watertight integrity? What would be done?

13 **WIT:** It really depends on what ABS wanted at the time. It's either a dye pen or
14 pressure.

15 **Mr. Sterbcow:** And would that be ABS controlled?

16 **WIT:** Yeah. They inspected everything.

17 **Mr. Sterbcow:** They do that, okay. Are you aware of any photographs of the dent
18 before it was repaired?

19 **WIT:** I imagine there's a few somewhere.

20 **Mr. Sterbcow:** Do you know where those would be?

21 **WIT:** No.

22 **Mr. Sterbcow:** Do you know of any post repair photos after the dent was repaired? I
23 would think there would be. If you know.

1 **WIT:** I don't remember.

2 **Mr. Sterbcow:** Do you know who did that repair to the dent?

3 **WIT:** What repair on the deck? What are you talking about the deck?

4 **Mr. Sterbcow:** The dent, D-E-N-T.

5 **WIT:** Oh the dent.

6 **Mr. Sterbcow:** I'm sorry.

7 **WIT:** That was all Bollinger. That was all Bollinger.

8 **Mr. Sterbcow:** Bollinger. Do you remember when the legs of the SEACOR POWER
9 were lengthened?

10 **WIT:** That wasn't in my realm at that time. I really couldn't say.

11 **Mr. Sterbcow:** Do you know long, how much they were lengthened?

12 **WIT:** Just 15 feet.

13 **Mr. Sterbcow:** 15 feet more. Do you know who did that work?

14 **WIT:** SEMCO Lafitte

15 **Mr. Sterbcow:** SEMCO did that work, okay. Who did the hatch work on the deck?

16 The hatch replacement work that was shown in the dry dock? Remember there were a
17 couple of hatches that you said were replaced.

18 **WIT:** Bollinger.

19 **Mr. Sterbcow:** Bollinger did that work as well, alright. Did the crew of the SEACOR
20 POWER, to your recollection ever report to you any issue with a starboard list while she
21 was underway?

22 **WIT:** Years ago.

23 **Mr. Sterbcow:** Years ago?

1 **WIT:** Years ago.

2 **Mr. Sterbcow:** Okay. When you say years?

3 **WIT:** I was on the boat at that time. I went to that boat when that happened. Tell you
4 the exact year it's probably 5 or 6 years ago or better.

5 **Mr. Sterbcow:** Was it investigated?

6 **WIT:** We found a crack in the leg.

7 **Mr. Sterbcow:** And it was repaired obviously?

8 **WIT:** Yes.

9 **Mr. Sterbcow:** Do you know whether or not the repair to the crack, and I assume it was
10 the starboard leg?

11 **WIT:** Yeah.

12 **Mr. Sterbcow:** Did the repairs of the crack in the starboard leg fix the starboard listing
13 issue?

14 **WIT:** Yes.

15 **Mr. Sterbcow:** Anything after that to your knowledge?

16 **WIT:** No.

17 **Mr. Sterbcow:** And as of March of 2020 or that last dry dock was the SEACOR
18 POWER to your knowledge as part of that whole dry docking operation was she tested,
19 was her hull tested for any issues with leaks?

20 **WIT:** I can't tell you that. I don't know.

21 **Mr. Sterbcow:** Would all of the documentation of anything that occurred during that dry
22 dock, any findings, any response, repairs would all that be in the reports?

23 **WIT:** Yes, sir.

1 **Mr. Sterbcow:** Okay. So if there was such a finding it should be in that report?

2 **WIT:** Yeah.

3 **Mr. Sterbcow:** Alright. As the maintenance person and a person who's been there a
4 long time and obviously who is very familiar with this boat, do you have any idea as to
5 whether she was vulnerable to taking on water on her starboard side for any reason?

6 **WIT:** No.

7 **Mr. Sterbcow:** And I assume, well let me ask you. Do you have any idea as to why
8 she capsized on April 13th?

9 **WIT:** No, sir.

10 **Mr. Sterbcow:** Thank you, sir, I appreciate it.

11 **CAPT Phillips:** Thank you Mr. Sterbcow. American Bureau of Shipping.

12 **Mr. White:** Thank you Captain. Sir, just a short or a brief follow up with regard to the
13 side shell damage that you mentioned. Do you recall when the side shell damage was
14 repaired?

15 **WIT:** It would have been done on that docking. On that top side docking.

16 **Mr. White:** And was that the dry docking?

17 **WIT:** Sir?

18 **Mr. White:** Do you recall approximately when the repair would have been done?

19 **WIT:** Repeat it again.

20 **Mr. White:** Sure. Do you recall when, when the repair was done?

21 **WIT:** It was during that dry docking at Bollinger.

22 **Mr. White:** And so did Bollinger do the repairs?

23 **WIT:** Yeah.

1 **Mr. White:** And when the repairs were completed did you have ABS review the
2 repairs?

3 **WIT:** ABS was there the whole time. They came back and forth every day.

4 **Mr. White:** And were the repairs done to your satisfaction?

5 **WIT:** I never went to the boat when that was done. But ABS's satisfaction, yes

6 **Mr. White:** So you didn't have any issues with any of the repairs as far as you're
7 aware?

8 **WIT:** No, sir.

9 **Mr. White:** Thank you. Nothing further.

10 **CAPT Phillips:** Thank you Mr. White. SEACOR Marine and Falcon Global.

11 **Ms. Apps:** Thank you Captain Phillips. Tommy do you recall the SEACOR POWER
12 ever experiencing any problems in handling through rough weather conditions?

13 **WIT:** No.

14 **Ms. Apps:** You mentioned that occasionally while the POWER was out at sea you
15 might get a call from a Captain or a crew member to fix something on the boat.

16 **WIT:** Yes.

17 **Ms. Apps:** Do you recall that? And if you got such a call you have to potentially order
18 a part or somebody to come and fix it when the boat next returns. Is that right.

19 **WIT:** Yes.

20 **Ms. Apps:** And doing that you had to ask SEACOR to set up you know payment for the
21 new part or payment for the services to be had, right?

22 **WIT:** We already have accounts with all the vendors.

23 **Ms. Apps:** You already have that in place, right?

1 **WIT:** I just got to call and say that's what I need.

2 **Ms. Apps:** And has the company ever turned you down when you asked to make a
3 repair on the power?

4 **WIT:** No, ma'am.

5 **Ms. Apps:** You were asked a couple of questions about getting a call from Paul Fremin
6 about a life raft on the voyage -

7 **WIT:** Yes.

8 **Ms. Apps:** Before the POWER left on the 13th. Do you recall being asked those
9 questions? You said you ordered a new life raft and rack, right?

10 **WIT:** Donovan Marine. I think it's Harahan.

11 **Ms. Apps:** And did you have some conversations with Captain Scott Timmons about
12 the new life raft?

13 **WIT:** Yeah he told me, on the first call he told me that it didn't have the rack with it and
14 it would fit in the rack he had. So I called Donovan to double check on what was sent.
15 Because originally I did order a new rack, a new hydro and the raft because the new
16 rafts most of the times won't fit in the old racks. It's different. So he said he did send
17 the rack, the hydro and the raft. And I called Scott right back and told him that. The
18 rack's there somewhere you need to find it.

19 **Ms. Apps:** And did you also have a conversation with Captain Ledet that day about the
20 life raft?

21 **WIT:** Yes.

22 **Ms. Apps:** So he knew about it.

23 **WIT:** Yes. I told him the same thing I told Captain Scott.

1 **Ms. Apps:** And Tommy you've been friends with Captain Ledet for a long time, right?

2 **WIT:** Yes.

3 **Ms. Apps:** And what was ----

4 **WIT:** The whole crew.

5 **Ms. Apps:** What was your opinion of him in terms of being – how he performed as a
6 Captain?

7 **WIT:** A conservative Captain. If he knew of any problem he would not have left. He
8 did every safety meeting himself. He did all that himself.

9 **Ms. Apps:** I have nothing further. Thank you.

10 **CAPT Phillips:** Thank you Ms. Apps. I think we're wrapping up most of the questions.
11 Just ask you a couple final ones. Is there any additional training or equipment that you
12 think you would like to have in the future?

13 **WIT:** I can't think of none right off. I mean I'm getting to the end of my career. I let my
14 license go because they told me I couldn't run a boat again unless I quit. And my health
15 was starting to be an issue. You get tested for all kind of stuff and you might not get a
16 license and spend all that money. But as of right now, no I can't think of anything. I'm
17 learning as I go. You know every job I do I learn.

18 **CAPT Phillips:** Thank you. You have a lot of experience running lift boats and also
19 working on lift boats. Do you have any recommendations for the Coast Guard regarding
20 lift boats?

21 **WIT:** No, ma'am.

22 **CAPT Phillips:** Is there anything else that you want to tell us that we haven't asked
23 you about today?

1 **WIT:** No, ma'am.

2 **CAPT Phillips:** Okay. Thank you very much for coming today. You're now released
3 as a witness at this Marine Board of Investigation Hearing. Thank you for your
4 cooperation.

5 **WIT:** Thank you.

6 **CAPT Phillips:** If I later determine we need any additional information from you I will
7 contact you through your counsel. If you have any questions about this investigation
8 you may contact Board Recorder Lieutenant Anthony Alger. Thank you again for your
9 time. We will now recess until 0800 on August 10th, 2021. The time is 1639. This
10 hearing is now in recess. Thank you.

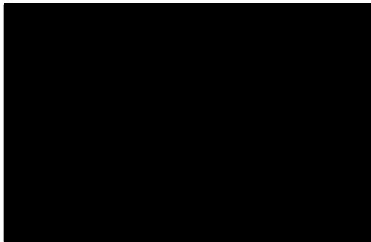
11 *The board recessed at 1639, 9 August 2021*

UNITED STATES OF AMERICA
UNITED STATES COAST GUARD

In the Matter of:

THE MARINE BOARD OF INVESTIGATION INTO THE CAPSIZING OF THE L/B
SEACOR POWER ON 13 APRIL 2021 WHILE TRANSITING THE GULF OF
MEXICO

I, [REDACTED], an officially designated and qualified
Court Reporter of the United States Coast Guard, hereby certify
that the foregoing proceedings were taken by me and transcribed
by me, and is a true record of the testimony of all witnesses,
and of the proceedings herein contained. I further certify that
there is no interest attached, either financially or by virtue
of relationship with any party hereto, on my part.



Court Reporter/Paralegal Specialist
U. S. Coast Guard, Eighth District