UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

* *

In the matter of: *

*

MARINE BOARD OF INVESTIGATION *

INTO THE SINKING OF THE *SCANDIES ROSE* *

ON DECEMBER 31, 2019 *

*

* *

Edmonds Center for the Arts
Seattle, Washington

Tuesday,
February 23, 2021

APPEARANCES:

Marine Board of Investigation

CAPT GREGORY CALLAGHAN, Chairman
CDR KAREN DENNY, Member
LCDR MICHAEL COMERFORD, Member

Technical Advisors

LT SHARYL PELS, Attorney Advisor
KEITH FAWCETT, Technical Advisor

National Transportation Safety Board

BARTON BARNUM, Investigator in Charge
PAUL SUFFERN, Meteorologist

Parties in Interest

MICHAEL BARCOTT, Esq.
Holmes Weddle & Barcott
(On behalf of Scandies Rose Fishing Company, LLC)

NIGEL STACEY, Esq.
Stacey & Jacobsen PLC
(On behalf of survivors Dean Gribble and John Lawler)

Also Present

LT IAN McPHILLIPS, Recorder

I N D E X

I N D E X (cont.)

P R O C E E D I N G S

(7:59 a.m.)

CAPT CALLAGHAN: Okay, it is 0800 on February 23rd, 2021, and this hearing is now in session. Good morning, ladies and gentlemen. I'm Captain Greg Callaghan, United States Coast Guard, Chief of Prevention for the 11th Coast Guard District. I'm the chairman of the Coast Guard Marine Board of Investigation and the presiding officer over these proceedings.

The Marine Board has established a COVID mitigation plan to comply with federal, state, and local requirements. As a result, no members of the public will be permitted to view this hearing in person. The Board will receive witness testimony through a hybrid of in-person, virtual, and telephonic means. Members of the Board have been spaced out far enough at the main table to remove their masks while seated to maximize clarity and minimize disruption. Members are to place masks back on at any time when leaving the table and whenever approached by another person. I ask that anyone who is unable to maintain social distancing, please keep their masks on unless actively speaking into the microphones.

Due to the extensive technology used to support this hearing and the potential for unanticipated delays or challenges, I ask that you please be patient with us in the event of any disruptions.

The Commandant of the Coast Guard has convened this board under the authority of Title 46 U.S.C. Section 6301 and Title 46

C.F.R. Part 4 to investigate the circumstances surrounding the sinking of the commercial fishing vessel *Scandies Rose* with the loss of five lives on December 31, 2019, while transiting in the vicinity of Sutwik Island, Alaska. There were two survivors.

I would like to take this opportunity to express my condolences to the family and friends of the five crew members who were lost at sea. I do note that many of you are watching this hearing on livestream due to the COVID restrictions in place, and we appreciate you being -- you joining us here today.

Upon completion of the investigation, this Marine Board will submit its report of findings, conclusions, and recommendations to the Commandant of the United States Coast Guard.

Other than myself, the members of this Board include Commander Karen Denny and Lieutenant Commander Michael Comerford. The legal counsel to this Board is Lieutenant Sharyl Pels. The recorder is Lieutenant Ian McPhillips. Coast Guard technical advisors to this board are Mr. Scott Giard and Mr. Keith Fawcett. This Board's media liaison is Lieutenant Commander Scott McCann.

The National Transportation Safety Board is also participating in this hearing. Mr. Bart Barnum, Investigator in Charge for the NTSB *Scandies Rose* investigation, is here with us along with Mr. Paul Suffern.

Witnesses are appearing before the Board to provide valuable information that will assist this investigation. We request that all members of the public be courteous to the witnesses and

respect their right to privacy.

The members of the press are welcome to attend virtually and provisions have been made during the proceedings to allow the media to do so. The news media may question witnesses concerning the testimony they have given after I have released them from these proceedings. I ask that any such interviews be conducted with full consideration of the COVID mitigation procedures that the Marine Board has established.

The investigation will determine as closely as possible the factors that contributed to the incident so that proper recommendations for the prevention of similar casualties may be made; whether there is evidence that any act of misconduct, inattention to duty, negligence, or willful violation of the law on the part of any licensed or credentialed person contributed to this casualty; and whether there is evidence that any Coast Guard personnel or any representative or employee of any other government agency or any other person caused or contributed to the casualty.

The Marine Board planned this two-week hearing to examine all events related to the loss of the *Scandies Rose* and five crew members. The hearing will explore crew member duties and qualifications, shore-side support operations, vessel stability, weather factors, effects of icing, safety equipment, the operations of the vessel from the past up to and including the accident voyage, and survey imagery of the vessel in its final

resting place. The hearing will also include a review of industry and regulatory safety programs as well as the Coast Guard's Search and Rescue activities related to the response phase of the accident after notification that the *Scandies Rose* was in distress.

The Coast Guard has designated parties in interest to this investigation. In Coast Guard marine casualty investigations, a party in interest is an individual, organization, or other entity that under the existing evidence or because of his or her position may have been responsible for or contributed to the casualty. A party in interest may also be an individual, organization, or other entity having a direct interest in the investigation and demonstrating the potential for contributing significantly to the completeness of the investigation or otherwise enhancing the safety of life and property at sea through participation as a party in interest.

All parties in interest have a statutory right to employ counsel to represent them, to cross-examine witnesses, and have witnesses called on their behalf. Witnesses who are not designated as parties in interest may be assisted by counsel for the purpose of advising them concerning their rights. However, such counsel are not permitted to examine or cross-examine other witnesses or otherwise participate in the investigation. I will now read the list of those organization and individuals whom I've previously designated as parties in interest.

Scandies Rose Fishing Company, LLC, represented by counsel who is appearing virtually today. Crew persons Mr. Dean Gribble and Mr. Jon Lawler represented by counsel who is appearing virtually today.

The Marine Board will place all witnesses under oath. When testifying under oath, the witness is subject to the federal laws and penalties for perjury for making false statements under Title 18 U.S.C. Section 1001. Penalties include a fine of up to $250,000 or imprisonment up to five years or both.

The sources of information to which this investigation will inquire are many and varied. Since the date of the casualty, the NTSB and Coast Guard have conducted substantial evidence collection activities, and some of that previously collected evidence will be considered during these hearings.

Should any person have or believe he or she has information not brought forth but which might be of direct significance, that person is urged to bring that information to my attention by emailing uscg.scandiesrosembi@gmail.com. This email address will be continually monitored.

Mr. Barnum will now say a few words on behalf on the NTSB.

MR. BARNUM: Thank you, Captain Callaghan. I am Bart Barnum, Investigator in Charge for the National Transportation Safety Board's investigation of this accident. The Safety Board is an independent federal agency which under the Independent Safety Board Act of 1974 is required to determine the cause or probable

cause of this accident, to issue a report of the facts, conditions, and circumstances related to it, and make recommendations for measures to prevent similar accidents.

The NTSB has joined this hearing to avoid duplicating the development of facts. Nevertheless, I do wish to point out this -- that this does not preclude the NTSB from developing additional information separately from this proceeding if it becomes necessary.

At the conclusion of this hearing, the NTSB will analyze the facts of this accident and determine the probable cause independent of the United States Coast Guard. At a future date, a separate report of the NTSB's findings will be issued which will include our official determination of the probable cause of this accident. If appropriate, the Safety Board will issue recommendations to correct safety problems discovered during this investigation. These recommendations may be made in advance of the report.

In addition to this, on behalf of the entire NTSB, I would like to offer my deepest condolences to the families and those affected by this tragic accident. Thank you.

CAPT CALLAGHAN: Thank you, Mr. Barnum.

Yesterday, we heard from two remaining owners of the *Scandies Rose* and the vessel manager for Mattsen Management, the company that managed the *Scandies Rose*. As discussed on the record yesterday, I am admitting Coast Guard Exhibit 121 which was

presented by Mr. Dan Mattsen and contains the log books from the vessel *Amatuli* from December 28th through 31st, 2019.

Today, all of our witnesses will be appearing virtually over Zoom. I ask that viewers, again, be patient with any potential technical difficulties in hearing from our witnesses and broadcasting to you.

Our first witness today from the National Weather Service will testify to the affects that the weather may have played in this tragedy. Mr. Paul Suffern of the NTSB is a meteorologist, and I have asked that he proceed first with the questioning, followed by Lieutenant Commander Comerford from the Board.

I also note for the record that the Coast Guard reached out to employees of the Windy.com weather application based out of the Czech Republic to provide testimony at these proceedings, and they chose not to participate.

The time is now 0810. We will take a -- this hearing will take a recess, and we'll resume at 0830.

(Off the record at 8:10 a.m.)

(On the record at 8:31 a.m.)

CAPT CALLAGHAN: Okay, the time is 0831, and the hearing is now back in session. We will now hear testimony from Ms. Noelle Runyan from the National Weather Service.

Ms. Runyan, Lieutenant McPhillips will now administer your oath and ask you some preliminary questions.

LT McPHILLIPS: Please stand and raise your right hand.

(Whereupon,

NOELLE RUNYAN

was called as a witness and, after being first duly sworn, was examined and testified as follows:)

LT McPHILLIPS: Please be seated. Please state your full name and spell your last.

THE WITNESS: Noelle Runyan, last name spelled R-u-n-y-a-n.

LT McPHILLIPS: Please identify counsel or representative, if present, and have them state and spell their last name as well as their firm or company relationship.

MR. JONES: Eli Jones for the Department of Commerce, Office of the General Counsel.

LT McPHILLIPS: Please spell your last name.

MR. JONES: J-o-n-e-s.

LT McPHILLIPS: Ms. Runyan, please tell us what your current employment and position.

THE WITNESS: I am a meteorologist in charge of the National Weather Service Anchorage Forecast Office.

LT McPHILLIPS: What are your general responsibilities in that job?

THE WITNESS: I am the office -- the staff supervisor and the office manager.

LT McPHILLIPS: Can you basically tell us your relevant work history?

THE WITNESS: My -- I have worked for the National Weather

Service since 1993, and I've worked in the -- I've been in -- excuse me -- in the Alaska region beginning in June of 2018.

LT McPHILLIPS: Can you briefly tell us your relevant work history? Just so (indiscernible) repeat that. What is your education related to your position?

THE WITNESS: I have a Bachelor of Science degree in meteorology.

LT McPHILLIPS: Do you hold any professional licenses or certificates related to your position?

THE WITNESS: No.

LT McPHILLIPS: If so, please explain.

THE WITNESS: No.

LT McPHILLIPS: Thank you. Captain Callaghan will now have follow-up questions for you.

CAPT CALLAGHAN: Thank you, Ms. Runyan. At this time, I'm going to turn it over to Mr. Paul Suffern from National Transportation Safety Board to initiate the questioning.

Mr. Suffern?

MR. SUFFERN: Thank you, Captain.

EXAMINATION OF NOELLE RUNYAN

BY MR. SUFFERN:

Q. Good morning, Ms. Runyan.

A. Good morning.

Q. Appreciate your time this morning. If we could go ahead and bring up Exhibit 027, Exhibit 027, and that should pop up on the

Zoom screen here as well. Well, as they're bringing up Exhibit 027, I'd like to ask you just some -- some general questions about how the National Weather Service forecasts were made for marine areas surrounding Kodiak.

So this Exhibit 027 just shows the National Weather Service marine and land areas surrounding the Alaskan peninsula and southwestern Alaska. So if you could please describe how National Weather Service in general makes weather forecasts for this area.

A. In -- in general, we look at models and -- forecast model and observational data for -- for this region. We use a variety of tools. We have a computer system that brings all of this into one system so we don't have to look in a lot of different areas. So we have it all brought into one -- one -- well, actually it's three screens, but one system.

We look at the model data, we interrogate various timeline, timing sequences, and -- and just a variety of -- excuse me -- a variety of the elements. Satellite data, radar data, surface observations, upper air observations, all of -- all of this things come together and we look at it through a time series. That's -- that's in general.

We -- we over time have developed a sort of feel or pattern recognition. So when we see these types of patterns come together, we then interrogate or look for -- in more detail for the particular hazards that -- that we think may -- may occur.

Q. Okay. Thank you. Could you describe how the National

Weather Service in Alaska makes a freezing spray forecast specifically for the Bering or Alaskan Peninsula?

A. For freezing spray, when we see indications of very high winds, of high seas, we start to look a little bit -- a little bit closer. We -- we have a number of tools that we can use. One tool is more text-based. It's -- it's basically a script. So we can take a look at the -- the -- the high end of -- of the winds. If we're looking at a particular area, we wind what the highest wind is and we find where the highest seas are, and we can plug those values into this particular script along with the sea surface temperature, and that script will generate a value for ice accumulation rate.

Then when we get an idea that -- that -- that is something that we are going to look for, when -- when we go to actually create the forecast, we have another -- a computer system, a graphical forecast editor that we can use to pull in the -- the -- the model data. We can then adjust it in there -- in that graphical editor if we need to.

And once we get the area identified, and we go to generate the forecast, we publish those -- that graphical representation of the forecast. And then another script runs that will -- that -- that runs the -- that those values through -- through a formatter. Then that then generates that -- the text that goes along with that forecast. We use that same graphical forecast editor and text for another script that will generate the text for any

warnings that might be given.
Q. Okay. Thank you, Ms. Runyan, that was very helpful. I understand that there are different categories of -- of -- of freezing spray. There's a freezing spray advisory and a heavy freezing spray warning. Could you briefly describe how those are different?
A. We -- it -- it's based on the rate of accumulation. Light freezing -- just average freezing spray, light freezing spray is a rate of about 0.3 inches per hour. Moderate is 0.3 to 0.8. Heavy is 0.8 to 1.6. And Extreme is simply over 1.6. Light freezing spray is, as I said, 0.3 inches per hour rate. We issue a heavy freezing spray warning for anything point -- or for anything 0.3 to 0.8, so in that moderate level, and greater. So we have two levels of -- two levels.
Q. Okay, thank you. And as you were describing earlier, you were talking about the process that the National Weather Service uses to make the freezing spray forecast and going through the -- the editing process. Are there any times that a National Weather Service forecaster would, I guess, apply professional judgment? They -- they think that the freezing spray conditions may be higher or lower than what you were speaking about, the computer model generated things?
A. Yes. Yes, yes. We spend a lot of time with pattern recognition, a lot of time training on that. And -- and -- and what I mean by that is when we see these weather patterns, we know

that there are some areas that react differently. Maybe -- maybe it's heightened because it's been funneled through a narrow channel such as between islands or things like that. So we know that the winds can be more enhanced in those particular areas.

So we can take -- in -- in the graphical editor, we can take those areas that we know tend to be higher and -- and -- and bump those -- bump those values up to get something that's more accurate based on our -- our -- our own experience and -- and -- and -- and maybe over time, we've -- we've received a lot of feedback from people in that area that say we -- we're always undergoing a forecast -- always underdoing a forecast. That -- and that would be something that they -- they might say. So we would take that information and -- and -- and use that for our forecasting in the future so that we know, yeah, things tend to be higher than what the models are saying.

Q. Okay. So it sounds like you can -- as a forecaster, you can make tweaks or adjustments based on information -- new information that you may get in?

A. Yes.

Q. Okay. When a forecaster sees potential icing conditions, you know, a day in advance, three days in advance, or, you know, five days in advance, or things like that, how far in advance can the warning or headline be issued by -- by the National Weather Service?

A. I would say in general it's about three periods out. Each

period's about 12 hours. So it's roughly 36 hours. But if we have a strong signal for -- for some extreme weather, we'll go out as -- as many as five days in advance.

Q. Okay. And would that -- would that advance be in the text forecast, or would that be in a discussion, or where -- where could a mariner find that information?

A. That is specifically with any warning advisory that we may issue. We will start talking about the various hazards and -- and the weather conditions expected in our forecast discussions, could even be in the extended. So that would be four to eight days out.

So if we're starting to see something four to eight days out, we will start talking about it immediately in the extended portion of -- of our forecast discussion. And some of that -- well, I supposed for mariners, it's mainly in there. There may be some indication in -- in a coastal waters forecast. But the closer to that timeframe that we get, the more we talk about it continually in our forecast discussion, and then in any statements or -- or -- or warnings, advisories. We do talk about strong storm systems in social media. Those are -- so the discussion and the forecast, any hazardous warnings and advisories in social media. Those -- those are the best ways.

Q. Okay, thank you. Have you, you know, in the two, two and a half years that you've been there up in Alaska, have you received any feedback from the mariner community as far as weather forecast, and specifically, I guess, freezing spray forecasts,

trouble spots either in the Bering or along the peninsula?
A. Not that I'm aware of. I'm sure that we have. We -- we try to get feedback from -- from Mariners as best we can. We'll -- we'll -- we'll set up meetings. We try to reach out to harbor masters. If -- if we have a chance, we'll -- we'll go to expos, or marine shows, boat shows, things like that and -- and try to talk with people to try to get that feedback.
Q. Okay. Thank you. Related along the lines of the forecasting you were speaking of earlier, what are some avenues that mariners can get a National Weather Service forecast, I guess specifically along the Alaskan peninsula or -- or near Kodiak Island?
A. So (indiscernible) of, or -- or maybe not to a distant the area, there -- there -- there are a number of avenues. There is web. There -- I suppose some of the ways that -- that -- that many do are through NOAA weather radio. So, yeah, if people are -- are considering going out in the next day or two, or -- or that day, again, the forecast from -- from a -- web page or weather radio, those are probably the two best -- best methods from -- directly from the Weather Service.
Q. Okay. Thank you. If we could bring up Exhibit 077. Exhibit 077 please. And this will be a picture of the NOAA Weather radio or NWR sites around Kodiak, Alaska. And as that's being brought up, how often are the -- the National Weather Service forecasts going out via NOAA weather radio, and how often are they updated?
A. Weather radio is a 24/7 service. So mariners can tune in at

any time to get that forecast. Forecasts are updated at least twice a day, but can be updated more often when needed.

Q. Okay. And so when a -- when a forecast goes out, does that automatically replace the older forecast, and how -- how -- how long is that timeframe?

A. Yes. So anytime we make a forecast and we -- we hit send or we publish that forecast, it immediately goes out through all our destination methods. And for weather radio, it is a matter -- just a matter of -- of a few minutes. The cycle -- the cycle is -- is -- is probably -- it can vary. I'll say it's generally about five minutes long. So, at worst, I would say it would be about five minutes.

Q. Okay. Thank you, Ms. Runyan. If we could bring up -- we can take down Exhibit 77 and bring up Exhibit 55. And this exhibit will be a web page made by the Ocean Prediction Center, a part of NOAA, and it will provide experimental freezing spray graphics using two different methods. Could you describe, I guess, the background from which this website came, and -- and how long it's been available?

A. This particular webpage has been around since 2014 I believe. 2000 -- yeah, 2014. There -- there are two algorithms, the Modified Overland and the Stallabrass algorithm. I don't know much about the Stallabrass other than that just that it's a different algorithm, but it's along the same lines.

The Modified Overland algorithm was, I believe, developed by

a forecaster out of Alaska, but it -- it -- it has become pretty -- pretty widely used and -- which is why now we're trying to make it more -- more -- use it more. It -- it seems to have a -- a good -- it seems to be -- it's good. Seems to be good.

So in trying to make better use of that and make it easier to -- to see, we're trying to get everything to be graphical. So the Ocean Predication Center has put together this webpage. The algorithms indicate ice rate -- ice accumulation rates. And it's -- it -- it -- it is -- I'm not sure if I'm answering your question. It --

Q. Yeah, I'd like to just -- who is the -- yeah, I understand the science behind it, it seems like it's developed there. But as far as it being an experimental site, does the National Weather Service or Ocean Prediction Center have a -- have a user base that this is targeted at? Is this targeted at National Weather Service forecasters for updating their guidance? Is this targeted for mariners? Or is it just all of the above?

A. Yeah, it actually is all of the above. Although, it is a public-facing webpage, so anyone has access to it. We -- when they are talking about freezing spray, gales, things like that, we -- we coordinate with the Ocean Predication Center so that we're -- we're both on the same page, and all that -- that information so we have access to it to help us in that coordination. But because it's public-facing webpage, the mariners -- mariners also have access to that.

Q. Okay. Thank you. Thank you very much. To your knowledge at this point, have you received any feedback from the mariner community about the website or -- or anything?
A. I -- I have not. I haven't heard. I do know that when this was first developed, there was an effort. The National Weather Service partnered with Environment Canada in an outreach effort, and developed a flyer that was -- was distributed. I'm not sure how or who all distributed it. It was -- it was via the web at least.

And -- and I believe it was -- we also worked with the local forecast offices to try to get it into the user's hands a little more directly at least from the word that it's out there. And that flyer had two methods to get feedback. One was a phone number, and one was a web form that users could -- could use to provide feedback. But I don't know how much we got.
Q. Okay. If we can bring up Exhibit 50 -- 054, 54, I believe that's the flyer that you're speaking of. It has -- has a date there around 2015 which is when you said that experimental site there. So to your knowledge at this point, did that -- at that -- I believe if we can bring up now Exhibit 122, and that was a new flyer between Environment Canada and the National Weather Service in 2018 I believe. To your knowledge at this point, has there been any feedback from the user community based on -- on this new flyer from 2018?
A. I have not -- I haven't heard any.

Q. Okay. Thank you. Has there -- earlier you spoke about some marine outreach programs. Of course, during non-COVID times of more availability and being able to travel around, could you please elaborate a little bit more on -- on how the Anchorage office or Alaska region in particular would -- would do those?
A. When we find out about various expos, home shows, boat shows, anything -- any type of event where we could possibly get some sort of feedback -- Weather Service is always looking to improve its products and services, and the best way to do that is to talk with the people who use those products and services. So any chance we get to do -- to get out and talk to people, we try to do it at -- at least as -- as often as we can.

And it's -- it's -- those are -- those are great because we can talk to -- to more of the actual users. Otherwise, we're able to talk with, as I said, we've reached out a number of times to harbor masters and -- and -- and tried to set up meetings and discussions and things like that. Yeah.
Q. Okay. Thank you. To your knowledge, since you've been there up in Alaska, has the -- the National Weather Service and United States Coast Guard been able to collaborate on any marine outreaches or flyers?
A. That's something that we also look -- look at doing. I don't know in the last couple of years if we've been able to. Of course, the last year has -- has been COVID, so that's really just one year, and I wasn't -- I'm not aware of any in that particular

year. But I do know also that we are -- we talk to them when -- when -- whenever we can and -- and try to get feedback from them, and offer our products and services. And we try to interact with them as -- as -- as much as we can. So it -- it would be logical then to -- to -- to work with them on various outreach efforts, I just don't know of any in the last couple years.

Q. Okay. Thank you very much. As far as turning a little bit back more towards the warning and -- and watch advisory, I understand that when the National Weather Service does issue a warning, watch, or advisory, whether it's marine or not, that that warning goes through what's termed common alert protocol, or a CAP, message is also provided. Can you kind of step me through that particular process?

A. When -- it's -- it's changing a little bit from -- from when it first began. We use -- since I started, we use a CAP version 1.1 quite a few years ago now, at least eight. And -- and -- and I'm not sure how -- let me think about this for a little bit. So when -- when we would issue a warning, we would send it out through our standard means, standard method. FEMA would get that message, and there was a system that would -- that would turn it into CAP version 1.1 format.

But what we're going to in our -- and most of our -- our warnings have gone to CAP version 1.2, and with that, we -- it -- that action of putting into the CAP format happens sooner through CAP handler. And -- and turning -- so when we issue a warning, it

also -- as soon as we send it out, it basically runs through this CAP handler where it is -- where the -- the -- the warning is then -- what's the word -- created, generated into this -- put into this digital format that anyone else can use, vendors can use, app creators can use this digital format.

The actual process, obviously, it's probably clear I'm not real clear on how that happens, just that it does. And it -- it's in an effort to get our warning out in as many formats as we can so that we can reach as many -- as -- as -- as many people as we can. I hope I've answered your question.

Q. Oh, I think -- I think you established -- so it's basically a message sent from a computer to another computer.

A. Yes.

Q. And -- and it's something that an app provider or -- or -- or other website could -- could take from -- from the National Weather Service and redistribute that?

A. Right. This -- it -- it -- it -- it's in a much shorter format so that computers can parse out the appropriate information more quickly than what it needed to do before when it was a standard long text.

Q. Okay. Yeah, that -- that's helpful. And when I'm reading through the -- the CAP messaging, I see there is categories for urgency, or severity, or different things where things are listed as minor, or moderate, or extreme as going through those categories. Could you kind of step me through how those

categories are determined, which level, for example a tornado warning will be this level, a heavy freezing spray would be this level?

A. Those categories for urgency, severity, and certainty are -- are basically pre-determined based on what the warning is. And those -- those categories, or those levels, we continue to refine based on -- on user feedback, so -- that are pre-determined. If we find out that it's not adequate, it'll update and change those -- those levels of severity, certainty, urgency.

Q. Okay.

A. Now we'll -- their -- the Weather Service has service program teams, and so each of those teams is focused on a particular program area, severe, marine, public, winter. So those teams work -- those teams focus on that particular program. And -- and -- instead of focusing on everything -- trying to focus on everything, they can focus on one particular thing, and hopefully have a better idea or better avenues of getting that feedback.

Q. Okay. Thank you. As far as -- you were mentioning earlier, there is version 1.1 and version 1.2 of -- of CAP, are they both -- are the CAP messages still both sent those -- via those two versions at this point?

A. The marine -- so there -- there was a change, I can't really describe well what -- what that change was, between version 1.1 and 1.2. But it -- it -- it involves -- so with version 1.2, we rely heavily on VTEC coding which is -- which is a code in almost

all of our -- out advisories and warnings, watches, warnings and advisories.

It -- however, in -- in Alaska waters, our zones are so large, it is possible that we could have multiple and separate storms in the same zone. Version 1.2 relies more heavily on the zones. I don't think I'm very clear. It -- so with our marine hazards, we could not go to 1.2 until we could figure out that issue and how handle that issue of needing to -- to identify multiple storms in a single zone since it was focused on one zone.

With 1.1, that constraint wasn't there. So for our marine products, we are still at version 1.1 for the time being. We are working with the developers though, and very soon -- very soon they basically have found a way to -- to -- to compensate for that. So very soon we'll be going to version 1.2 which (indiscernible) a little more refinement to the CAP message.

Q. Okay, thank you. And just could you put a timeframe on very soon? Are we talking about spring 2021, or summer 2021, or --

A. I -- I -- I think it could be in the next few months.

Q. Okay.

A. It's possible it's in the next few weeks.

Q. Okay. And I hear that the -- the National Weather Service is working on something called I believe hazard simplification. How will that interact with CAP and with that, would the forecasters be able to change the categories of CAP? For example, this is a heavy freezing spray, and it's, you know, happening in March, and

we've had, you know, a hundred heavy freezing spray-type events already, but this -- but for example, a forecaster could potentially edit the CAP version to -- to a higher severity in October because this is the first heavy freezing spray and we want to warn either the public or -- of the mariner community. Is that part of this next initiative?

A. Not -- it's -- it's -- it's not part of this initiative, but it is something that is being considered for the future. So right now, if we -- these categories are pre-determined for the particular hazards, advisory, or -- or -- or warning. With -- with hazard simplification, that is an attempt to make our products and services less confusing.

A lot of people don't understand the difference between our -- with our terminology on what's an advisory versus what's a warning. What's a watch, you know, versus advisory. So that hazard simplification is an effort to clarify our -- our -- our products and services. The -- we have another program that is being developed and -- and in stages called hazard services. And hazard services eventually may have forecast -- will put the capability into the forecaster's hands to adjust those -- those levels of urgency, severity, and certainty.

Q. Okay. Thank you, that's -- that's very helpful. I believe I have just one more question at this point, and it just goes back. If we could bring up Exhibit 027 again, Exhibit 027. Again, this is the forecast -- National Weather Service marine and land

forecast areas surrounding the accident site and west of Kodiak. And about -- if you can describe, about how many heavy freezing spray warnings are for that particular area for that timeframe?

A. Right. It -- it depends on the year. So that particular zone, that area that's in purple that's most clearly -- most -- most -- most -- most centered in that -- in that ring is Marine Zone 150, 1-5-0. And last year, which was a fairly cold year, in December there were five times that a heavy freezing spray warning headline was in the -- the forecast. So we had a warning out.

How we count those, it -- it -- it's based on that headline, and if the headline is -- so that's how many times that headline was in the forecast. However, we also tried to identify unique events in an attempt to try to find the number of events that actually occurred, a number of separate events. So there -- they have been four out of those five that were unique events, although there could be duplicates just based on how we -- how we counted those. That was December.

In January of last year, the -- it jumped up to 48 times we did headlines, possibly 43 with the caveat there could be some duplicates in there of unique events. So January was the highest. February, there were 28 headlines. And in March there were 33 headlines. As I said, those were -- that was a very cold year. This year, in January, we had four. So last year we had roughly 45, and this year we had four. So it all depends on the year.

Q. Okay. Thank you, Ms. Runyan.

MR. SUFFERN: That's all the questions I have for right now. I'll turn it back over to the Captain. Thank you.

THE WITNESS: Thank you.

CAPT CALLAGHAN: Thank you, Mr. Suffern. And I will now pass it to Lieutenant Commander Michael Comerford for questions from the Coast Guard.

BY LCDR COMERFORD

Q. Good morning, Ms. Runyan. Today, all of my questions are going to be related to the work of the National Weather Service and the realm of marine weather for Alaska, and how it relates to the safety or commercial fishing vessels. Again, thank you for being with us here today. We are going to ask you some questions, and we'll take breaks if needed. If you need a break at any time, please let us know and we can take a short break.

Now you were just talking about the number of advisories, or the number of headlines for freezing spray events. And I just wanted clarification, you had said the last year and you mentioned December was I believe four or five, were you referring to December of 2019 or December 2020?

A. '19.

Q. Okay.

A. So I was -- I was considering it a winter season, so it was last winter season versus this winter season.

Q. Now with a person of your background, I would like to do a little bit of a different exercise. I'd like to ask you to put

yourself on a boat operating in the area south of the Alaskan Peninsula. From your experiences and try to put yourself in that position, what weather sources would you think you would want to seek out from the National Weather Service? And for each, just provide a brief description of what type of information you would see in those sources or reports, and how you'd expect to access those sources on the vessel.

A. Okay. I would -- I would do some pre-planning before I headed out. I would get on the computer, I would look at the National Weather Service pages. I would look at the forecast page from the Forecast Office. There is a -- a link at the bottom of the main front page of -- of -- of the Weather Service site that is specific for marine. So I would click on that -- that link and look at the information there.

I would look at the Ocean Prediction Center, and then the site that -- that was one of the exhibits. I would look at the freezing spray forecast, but there is other information on there as well. As -- if I had access to that information on the -- the boat or the ship, I would look at it there as well.

I would look -- I would have a weather radio. I probably would have it be playing in the background a little bit, or at least have specific times that I -- I tuned in just to get kind of the last minute forecast. At least then, that wouldn't require the -- the bandwidth or the technology on the boat. I understand that not -- not every -- not every vessel has the same technology

on board. So, yeah, those -- those are methods -- those are the methods that I would use.

Q. All right. Now following that, I would -- I'm going to ask you to take a look at a couple different text-based messages and one graphical forecast product for the Alaskan waters in the days leading up to the *Scandies Rose* incident. For each product, as someone with your experience, I would like to ask you to describe what you would hope a mariner would get out of the message.

So first, Lieutenant McPhillips, could you bring up Exhibit 029 and start at the page -- bottom of page one? If you need us to zoom in at all, Ms. Runyan, please let us know, but this is the synopsis for southwest Alaska including the waters south -- around the Alaska Peninsula.

A. This -- this is for the other side of the Aleutian Islands. If I was going to be on that side, I would look at that synopsis, but if I was going to be near Kodiak, I would look at the next one down that we just see the headline for.

Q. Yes. Mr. McPhillips, can you scroll down to the next?

A. Okay.

Q. And take your time reading it if you want, and once you've gotten through internalizing, then you can -- when you're ready, please share.

A. Right. So the first thing I would look at, I would notice are the headlines. And there's one that's cut off, and I believe it was a gale warning. So there's a gale warning and a heavy

freezing spray warning in effect for -- for Tuesday. That -- I see heavy freezing spray warning for Tuesday night, I believe the gale warning was also for that same time period.

So then I would scan down to look at the forecast, if I'm planning on going out Tuesday, Tuesday night, if I'm planning on going out Tuesday night, I would -- I would still look at the Tuesday forecast just to see what kind of trend it -- it's showing. So it -- it -- it's showing west winds 30 knots, increasing in the afternoon. Gusts increasing, especially in the bays and passes in the afternoon. Freezing spray to 17 feet.

And then when I look at Tuesday night, I see that conditions are expected to be worse with improvement after -- with improvement Wednesday night, or really Thursday through Friday.

Q. Now you've been there in the Alaskan region for about two -- a little over two -- almost three years now. That type of winds and seas, is that typical for that time of year, or is that on the higher end? Where would you --

A. That -- that's -- that's on the -- the higher end. It -- it would be typical with a strong storm. Of course, it's not -- we don't have strong storms every day. So, yeah, I -- I would say it's -- it's -- it's high.

Q. Now the next message, Lieutenant McPhillips, could you bring up Exhibit 030, the bottom of page two please? And when it comes up, this is going to be the -- so this is the forecast for the Shelikof Strait. But could you walk through the same exercise for

this message, please?
A. Okay. So this -- this product was issued at 3:30 on Monday, 3:30 afternoon -- 3:30 in the afternoon on Monday, the day before. There was a gale warning in effect for Tuesday night, so it's -- it's in advance. So then I look for two -- if I'm planning on going out Tuesday night, I'll look at Tuesday, saw that winds are south 15 becoming 25. Seas increasing from three to six feet. And then conditions worsening Tuesday night with -- with west winds 35 knots, seas at nine feet, freezing spray.
Q. And, Lieutenant McPhillips, if you could just scroll up a little bit to the previous message please? One -- when you look at the two messages, the one from the morning of December 30th, and the afternoon of December 30th, I noticed the freezing spray notice is initiated on the afternoon forecast. Would this be something as you're monitoring weather pop out at you or -- or be prominent?
A. It -- it would be prominent. So the earlier forecast shows a -- a -- a small craft advisory for tonight, but then the next issuance introduces the heavy freezing spray warning. But if I remember, I think it was shown there. And -- and I'm making sure that I'm following along with the time periods that you're talking about.
So earlier on -- 3:15 in the morning, Monday morning, we talk about small craft advisory tonight. So that would be Monday night. That would be first. So that's the one that is -- is --

is there. Then the next issuance, it -- it determined the need to issue a warning for heavy freezing spray for the following night. So then we added that next headline. So conditions were -- so I would expect if I was hearing that and seeing that, that is an indication that conditions are worsening.

Q. A little bit of a follow up to this one, in the previous message for the waters south of the Alaskan peninsula, I -- I recall the heavy weather -- or the heavy freezing alert being up in this section with the gale warning. And in this message, the freezing alert's down in the text product. Is -- is that the threshold, is the heavy weather -- or the heavy freezing indicator when it would go into the upper part of the message? Or is there a threshold there that comes a sub-paragraph below the craft advisory or the gale warning?

A. When we issue a warning or an advisory, that's when the headline shows up. So we may identify freezing spray or heavy freezing spray in the body of the -- of the text earlier. And then when the warning or advisory is issued, that's when the headline also shows up.

Q. All right, thank you. All right. And then the last one I'm going to ask you to do this drill for, or this exercise. Lieutenant McPhillips, could you bring up Exhibit 028, page one please? And this one is going to be more graphical, and I'd like you to focus on the -- because it covers a very broad area. But up towards the middle -- just slightly off right center is the

Alaska area. For a mariner, what would you want them to get generally from this type of graphical product?
A. When the lines come really close together and are really packed, that is an indication of high winds. So when those lines come together, we get high winds. It's a tightening of the gradient.
Q. And is -- and is this is further substantiated with the flags, how the flag indicators are displayed?
A. The wind bars, the -- the -- the -- the -- there's -- what I see there -- the highest that I see there are with the -- the triangle and that's 50, 50 knots. I can't tell if there's actually 55 in there. It's -- it's pretty small. So my computer just went black. It -- so we've got 45 to 50 knot winds along with the where that gradient where those lines come -- come close together.
Q. And then sort of helping me understand a little bit better, yesterday we heard some testimony that they may monitor pressure while they're on their way, and as they see the pressure raise, they know, you know, things are going to be getting better. Could you talk a little bit about, from your perspective, if that makes sense, or how that would be a good indicator of improving conditions?
A. It -- that does make sense. We have the stormier weather near the low pressure system. And that is also where that -- those -- those isobars, those lines were -- were coming close

together. And then if you would follow that map farther to the south where the high pressure is, you see the lines getting farther apart, calming conditions.

Q. And then during the same testimony, we heard about mariners calling, and forgive me, I'm using their terms, quote, "the Ice Lady" to get updates on icing conditions while on the way or before they leave the dock. Is this a familiar term to you, or --

A. It is, yeah.

Q. Could you talk a little bit about that?

A. We have -- we have a forecaster who -- who is the lead on the ice desk, and I think a lot of people call her the Ice Lady. So anyway. So, yes, mariners do reach out to -- to the forecasters both on the regular -- the -- the public forecast desk, and -- and on the ice desk, the Alaska's Sea Ice Program.

So we -- we do try to make ourselves accessible to -- to -- to -- to users of our -- of our products and services. So -- and -- and on -- on the bottom of our marine statements, we -- we have -- we -- especially when it's comes to headlines, advisories and -- and warnings, we have a statement on the bottom that -- that -- that encourages people to give us feedback on conditions, reports. Although, might (ph.) have those relayed to us.

Q. In your experience, have you received any feedback or know if your office has received feedback?

A. I -- I know that -- I know that they have. There was a recent event and -- and I know that we got feedback. So we do --

we do get some reports from mariners when -- when there's freezing spray occurring.

Q. And just out of curiosity and if -- when you get reports on the freezing spray back -- feedback from the mariner, is there any validation done on the experimental algorithm that's being produced, or -- even if it's not detailed, I'm just curious?

A. I -- it's -- it is -- it is a validation for the forecaster. We do -- we have been not -- I don't know that we've gone through an exercise of documenting directly those two things.

Q. Ms. Runyan, one other topic I was curious about was collecting ship's weather data. We had brought up the exhibit about the freezing spray observations. Are you familiar with any other programs the National Weather Service has for collecting ship's weather observations to help the weather forecast, and how does that help?

A. There -- there is an effort, VOS, v-o-s, voluntary observation -- I -- I guess I don't remember what it stands for. But it's ship obs. So we -- there is a program that mariners can sign up to do and that is to provide observations.

Generally that is observations every six hours. There are times when it would be every two hours depending on -- on the situation. But I think when -- when mariners have signed up for that program, we do get other observations outside of those times that are more specific to -- to freezing spray.

And we get -- it's not just for Alaska, it's -- it's all --

it's all over the globe I think, we do get them for the Alaska waters. And we get -- we get a number, we'll say probably around 10 to 15 or so at any one synoptic hour. Synoptic is the every -- every six hours, zero, six, 18, Z, Zulu times.

Q. Now for these programs, is it any data is good data, or are you looking for certain -- I mean from your perspective, is it -- are weather observations from a ship's captain valuable, or do you have to have certain equipment to make these valuable input?

A. Any -- any information is valuable. We can -- we can make use of anything. Of course, when we're talking ships and mariners, wind and -- and seas are -- it's really what we're looking for. But we would take anything.

Q. Lieutenant McPhillips, could you bring up Exhibit 121, page 13? What you'll see here is just a ship's log from a vessel. On there, it notes some information about the weather. Northeast 25 increasing, some gusts information. So would this be valuable information to include in -- for information fed back to National Weather Service? Or is this -- I mean how would you rate this on -- on a helpful scale?

A. It is -- it is helpful on a -- on a scale. I would say if it's handwritten, it -- it's -- it's -- it is very good for validating our forecast for our warnings -- watches and warnings. We do make an attempt to -- to -- to verify those products. So this is where we would get the most use out of this. If -- I believe the -- the VOS thing, I think that's digital and we can

get them into our computer system. So that's easier to do, but this is great for after the fact.
Q. Now shifting gears ever so slightly. A little while back both of us were on an interview with a third-party app called Windy App. Just from your recollections, could you describe what the -- that company did? What -- like what their actual work was, and how they got the weather to present to their end users?
A. As I recall, they use model data. They actually have -- so users of this app can select which model to look at it. It is straight model data. So there's no forecaster intervention. And I believe they also pull in our -- the Weather Service advisories and warnings.
Q. So there's always differences in how third-party apps present the data, how National Weather Service presents the data. I'm -- I'm a little curious, are you aware of any efforts or initiatives by the National Weather Service on the potential of incorporating positive aspects of third-party sites into deliverable tools? In other words, has the National Weather Service evaluated developing dynamic weather tools with improved user interfaces?
A. Are you asking if we've considered making our own app? Or are you asking if --
Q. Oh, no.
A. -- we would use somebody else's app in -- to incorporate into our products and services?
Q. I'm actually more curious just if there's been work groups on

sort of comparing what these products are and what the future goals of the National Weather Service are. I'm not getting into specifics, but just if there's been work groups started on the future deliverables by the National Weather Service with expanded technology?

A. There is a group -- there is a group in the Weather Service called the Emerging Tech Team. I have not been on that team, so I'm -- I don't know. But -- but by the name, I would imagine they're always looking at the future and -- and where we might need to go.

Q. Thank you very much.

LCDR COMERFORD: Captain Callaghan, at this time, that's all my questions.

CAPT CALLAGHAN: Thank you, Lieutenant Commander Comerford.

I'll now turn over to PII. Mr. Stacey, do you have any questions, sir?

MR. STACEY: No questions for us, thank you.

CAPT CALLAGHAN: Okay. Then I'll turn to Mr. Barcott.

MR. BARCOTT: No questions from us, Ms. Runyan. Thank you very much for your time this morning.

CAPT CALLAGHAN: Okay. Back to NTSB. Any follow-on questions from NTSB?

MR. SUFFERN: I have one follow-on question, Captain.

BY MR. SUFFERN:

Q. Ms. Runyan, just going back to the -- the text forecast that

was discussed earlier, and that talked about wind conditions available, whether it was 25 knots or 30 knots, does that include gust information, or is that just sustained winds?

A. That is the -- that is the -- the highest wind -- the highest wind expected.

Q. Okay. So a -- a mariner if they see 25 knots, that would be the highest wind that they could expect within their -- in that area?

A. Yeah. I -- I -- I -- I believe it's sustained.

Q. Okay. So there could be potentially higher gusts within that? I saw in one of the forecast zones it was specified out of bays and passes, but at other times it could just be higher gusts in that area?

A. Um-hum.

Q. All right. Thank you, Ms. Runyan.

MR. SUFFERN: That's all the questions I have, Captain.

CAPT CALLAGHAN: Thank you, Mr. Suffern.

Follow-on questions from Commander Karen Denny.

BY CDR DENNY:

Q. Good morning, and -- and thank you for presenting this information. I did have two questions for clarification. When we were talking about how there are products that you were at version 1.1 and the marine side had to stay at 1.1 when other products went to 1.2, I just needed some clarification from you on were there any -- by not switching to 1.2, was there any potential for

inaccuracies in the product?
A. There -- there was one difference, and that is between 1.1 and 1.2. That was in the severity of the freezing spray -- heavy freezing spray warning. One being the -- 1.1 gave a severity of moderate, and 1.2 would give a severity of severe in the CAP message.
Q. So for my clarification, if -- so now it's still at 1.1, and it'll switch to 1.2 in a few months. So -- okay, I'm just going to drag out my notes, right
A. Yes. Yes.
Q. So what you're saying is, when it switches to 1.2, the -- the readout or what it'll give is not both moderate and severe, it'll just give the severe, is that right? Did I understand that correctly?
A. Well, let me see if I can clarify. The -- the -- the CAP message has a pre-defined level of severity for a heavy freezing spray warning. And 1.1 has that severity set at moderate. 1.2 has that severity set at severe. That is in the CAP message alone.
Q. Okay, understood. So then what would be the difference the end user would see between, let's say, same weather like in version 1.1 and 1.2, what would the end user see?
A. So the Weather Service, I think the difference would be most noticeable in how that CAP message is displayed on various apps. So if a particular warning was shaded one color for moderate and a

different color for severe, it would have two different colors. That is -- that is -- is -- it's really how the vendor or the app, how that developer chooses to show it.

For a little bit of clarification, I think that I would like -- also like to make. When we issue a warning -- maybe it's not clarification, maybe it's reiteration -- that when we issue a warning, we issue a warning regardless of whether it is moderate, severe, or extreme icing rate. All of those three categories are lumped into a single warning.

Q. Okay. Thank you. That does clarify it for me. I appreciate that. And then when you mentioned that you talked about the hazard services separately, separate from the CAP, that -- that in the future it will allow the forecaster to adjust the levels of the three different categories that you mentioned.

A. It -- it may. It is being considered.

Q. Okay, thank you for that clarification. To -- to what extreme -- I guess how much would it allow the forecaster to adjust, and then does that reflect in the product that an end-user would see, that it was adjusted?

A. So the idea behind that is, for example, if we issued a winter storm warning, we might bump up the severity based on the timing, and that's why this is only being considered. There are lots of details that have to get worked out on -- on how this could work.

But the idea is if this is the first heavy snow of the year

and it is going to occur at rush hour, it's going to cause a much larger impact, a much bigger impact to the public than an equal level storm at the end of the season when everybody's used to driving on -- on the snow.

So we could bump up that -- that severity a little to heighten the awareness of that particular event and -- and hopefully urge people to use more caution. So that would be the -- the reason. It -- it wouldn't likely to be to lower the severity, but rather at certain times increase the severity.

Q. Okay. So if you apply that to the marine application side of things, what would be some ways that a forecaster could -- could reasonably use that discretion?

A. If -- if we had a resolution in our products that we could identify those passes or bays that have increased impact from certain value winds, we could bump up that severity level. I don't see us ever lowering it for any reason. We would only bump it up to raise the awareness for that hazard in -- in that particular area, that strait, that gap.

Q. Thank you.

CDR DENNY: Captain, I have no further questions at this time.

CAPT CALLAGHAN: Thank you, Commander Denny.

Thank you, Ms. Runyan.

BY CAPT CALLAGHAN:

Q. So I just have a quick follow-on here. So based on your time

in Alaska now, and your interaction with the industry regarding some of your outreach effort, is the experimental freezing spray website widely used?

A. I don't know. I don't know. I -- I -- I can infer that since we haven't received any feedback on that, that they may not know that it's out there.

Q. Okay, and I thank you for that. And so in -- along the same lines, sort of are there increased opportunities to -- to raise awareness for that website, and that -- that source of information to the marine time industry?

A. I think -- so we have -- our forecast office has teams, and we have a marine team. And that marine team would also have an outreach team and impact decision support services team. And these teams are working together to find -- to -- to -- to look for ways, look for times, look for opportunities to interact with our -- with the users of our -- users of our products and services. So we continually do that.

And -- and it -- and one of the things that would be nice is if mariners would reach out to us looking for information, or telling us when there are gatherings. Maybe there's some -- some user meeting or harbor master's meeting and they would like to invite us to talk about what products and services that we offer that we provide, and then we can explain in more detail about those products and services. And -- and -- and that would include not just what -- what we do in our office, but we also talk about

the products and services that are available through other websites, like the Ocean Prediction Center.

Q. Okay. And so last thing here, I just want to get your sense based on what we've discussed here today, is there anything else with regards to the weather that this board should consider as part of this investigation that we didn't go over here today?

A. Not that I can think of.

CAPT CALLAGHAN: Okay. Well, Miss -- Ms. Runyan, I -- I do thank you for your time today. I thank you for your -- for this testimony. And I want to take the opportunity to thank you for the work that you do with the National Weather Service to provide that valuable information to the public on a regular basis. So thank you for that.

At this time, you are released as a witness at this formal hearing. Thank you for your testimony and cooperation. If I later determine that this board needs additional information from you, I will contact you through your counsel. If you have any questions about this investigation, you or your counsel may contact the investigation recorder, Lieutenant Ian McPhillips. Thank you, Ms. Runyan.

(Witness excused.)

CAPT CALLAGHAN: It is now 9:53, we'll -- we're going to take a recess. Next scheduled witness was scheduled to start at 10:30. We'll work to -- if the opportunity presents itself for that witness to start early, we will make a public announcement and

resume earlier. At this time, we'll go into recess with a scheduled time -- start time at -- I'm sorry, 10:45. We now are in recess.

(Off the record at 9:53 a.m.)

(On the record at 10:17 a.m.)

CAPT CALLAGHAN: Okay, the time is 10:17, this hearing is now back in session. We'll now hear testimony from Mr. Ed Ehler.

Mr. Ehler, Lieutenant McPhillips will now administer your oath and ask some preliminary questions of you.

THE WITNESS: Okay.

LT McPHILLIPS: Please stand and raise your right hand.

(Whereupon,

EDWARD EHLER

was called as a witness and, after being first duly sworn, was examined and testified as follows:)

LT McPHILLIPS: Please be seated. Please state your full name and spell your last name.

THE WITNESS: Edward Arnie (ph.) Ehler, E-h-l-e-r.

LT McPHILLIPS: Please identify counsel or representative if present, and have them state and spell their last name as well as their firm or company relationship.

THE WITNESS: Just myself.

LT McPHILLIPS: Please tell us what is your current employment and position?

THE WITNESS: I am employed by Lovrics SeaCraft, Inc. I am a

project manager.

LT McPHILLIPS: What are your general responsibilities in that job?

THE WITNESS: I do all the -- the docking, pretty much everything. I oversee the projects start to finish.

LT McPHILLIPS: Can you briefly tell your relevant work history?

THE WITNESS: Well, I've been doing this for the last 30 years.

LT McPHILLIPS: What is your education related to your position?

THE WITNESS: I'm a high school graduate.

LT McPHILLIPS: And do you hold any professional licenses or certificates related to your position?

THE WITNESS: No.

LT McPHILLIPS: Thank you, sir. Captain Callaghan will now have follow up questions for you.

CAPT CALLAGHAN: Mr. Ehler, thanks again for being with us today. I'm going to now turn it over to Commander Karen Denny from the Coast Guard to start questions, sir.

EXAMINATION OF EDWARD EHLER

BY CDR DENNY:

Q. Good morning, Mr. Ehler. Good to see you, and thanks again for being here. If at any point we ask a question that you don't understand or can't hear because of technical difficulties, just

stop us, let us know, and we'll repeat or rephrase the question. We're going to take breaks throughout the hearing, but if you need a break, just let us know.

Also, since we're using this virtual platform, we're going to share exhibits virtually, so it'll show up on your screen. The recorder, Lieutenant McPhillips, will put an exhibit that we talk about. But if you need to -- if I ask you to point something out and you need us to zoom in or focus on it, please just ask for that to get zoomed in on and then we'll confirm that that's what you want to show us, does that make sense?

A. Yep.

Q. Excellent. Thank you. In this testimony, we may ask you about the invoice for the dry docking and repair work on the *Scandies Rose* in 2019. And that is Coast Guard Exhibit 111. We're also potentially -- oh, we'll -- we'll put it up, sir. We'll put it up.

A. Just -- I -- I have it in front of me here.

Q. Okay, right on. We're also going to look -- look up some other exhibits which we'll put up on your screen including the -- the Lovrics dry dock work list and some pictures of the *Scandies Rose* to better understand it, okay?

Okay. So to follow up on Lieutenant McPhillips' questions of you, could you talk us through your background as it relates to being the project manager at Lovrics?

A. Okay. I started building boats from very young. I built a

big boat and went cruising through the Caribbean. Went to school at Florida Institute of Technology to study underwater habitats. I started doing diving. Found out I like to do diving more than I did in school so I kept the diving issues going.

I've done a lot in my life. I have tug boats. I build boats. I came up here to retire from Lovrics 10 -- 12 years ago. Mr. Lovric had died and passed on, and the yard was kind of dwindling. I kind of took it under my belt and here I am.

Q. So 10 years at Lovrics shipyard?

A. Well, since 2009.

Q. Understand. Okay. Lieutenant McPhillips, could you pull up Exhibit 004, page five, and here we're going to see some photos of the *Scandies Rose* when she was hauled out. So, Mr. Ehler, for -- for your benefit, this exhibit is the condition and valuation survey done by a marine surveyor.

A. Okay.

Q. So can you see those -- those images well enough, or do you need us to zoom in?

A. No, I think I can see them pretty well.

Q. Excellent. Could you -- could you explain, can you briefly explain what we're looking at right here?

A. Okay. You're looking at the bottom of the boat sitting on a railway. It's a rail system that's, you know, it goes on tracks that goes down -- back into the water. In other words, we lower the rail down there, the boat comes into it, and then we haul it

up on to the beach.
Q. Okay. And can you identify based on what you see here, can you just confirm, is this the *Scandies Rose*?
A. This is the *Scandies Rose* and it's obviously been freshly repainted, ready to go. It's probably pictures of it before it went back in the water.
Q. Okay. Based on your -- the -- the background and these images, can you verify that these photos were taken at Lovrics shipyard and (indiscernible)?
A. Yes. Yes, I had to take a quick look here, but it's definitely Lovrics.
Q. Okay. So, Mr. Ehler, had the *Scandies Rose* been hauled out or any work done dock side at Lovrics in the past, before 2019 to your -- to the best of your recollection?
A. I do not believe so. I think this was the first haul-out we did.
Q. Okay.
A. It might have been state side for a while. I can look on my computer to verify it because it would be in my records.
Q. Okay. So we'll -- we'll take a note on that, and we'll -- we'll verify that information with you on a side bar. So for the 2019 dock -- dry dock, how -- how did it come to pass that it came to Lovrics? Did you -- did you bid on the job? How does that work?
A. No. I've done other work for the owner of the boat. He has

other -- other vessels and we've been maintaining his vessels for a few years prior to 2019. I think his first one we did was 2016 I believe.

Q. Okay. And -- and when -- since the *Scandies Rose* had multiple owners, could you clarify for me which owner you're talking about?

A. Dan Mattsen.

Q. Okay. Roger that. So how much in advance notice did you get in terms of -- like as a head's up, we need to bring the boat in, can you accommodate us? How did that happen? Can you briefly walk me through it -- walk me through it?

A. I think she -- he has a port engineer who contacted me probably within 60 days. I -- I had plenty of notice of when it comes up. Typically, the shipyard, it takes a couple of months to be -- get scheduled in.

Q. And there was nothing abnormal to the best of your recollection in terms of the timing for the *Scandies Rose* needing to get -- or the scheduling for that?

A. No.

Q. Okay. So you got -- you got ample notice?

A. Ample notice, and the (indiscernible).

Q. And then could you for our benefit, that port engineer, would you mind telling me who that is?

A. Gelia Cooper.

Q. Gelia Cooper was acting as the port engineer. And she -- so

she contacted you about that? Understood. Okay. So was there -- did you at any point interact with any other person identifying themselves as a port engineer on behalf of the *Scandies Rose*?
A. The skipper of the boat when it came in, there was some small discussion, he had a wish list of what he would like to see done. That was short. We didn't -- there wasn't very much communication there, but most -- all my communication was through Gelia Cooper.
Q. Okay. And -- and again, when you said small wish list from the owner, are we still talking about Dan Mattsen? Oh, you said the skipper, I'm sorry. So who was that, sir?
A. The skipper. I cannot remember his name.
Q. Okay. All right.
A. I usually have contact with the skippers for a short period, as, you know, they want off the boats, you know, they're -- they -- they park the boat and they want to get. So, you know, they -- usually they communicate with the port captain, with Gelia, you know, giving them a list of things that they feel that they need to have looked at and this sort of thing, so --
Q. Did you --
(Simultaneous speaking.)
A. (Indiscernible) conversation.
Q. Understood. You had a brief conversation with the skipper. Did you -- were you given anything in writing from the skipper as far as a work list?
A. I believe I had a list to start off with which changed over

the period of time.
Q. And do you still have a copy of that list?
A. I do not. I looked and looked for it, I cannot find it.
Q. Okay. Lieutenant McPhillips, could you please pull up --
A. Generally, these lists -- go ahead. Generally, these lists change dramatically throughout the whole project. This was a -- kind of a short, mostly paint work.
Q. Okay. Lieutenant McPhillips, could you please pull up Coast Guard Exhibit 091 which is -- Mister -- Mr. Ehler, for your benefit, that is Lovrics 2019 dry dock work list as of 13 May.
A. Okay.
Q. So, sir, I'm going to give you a minute to -- to just get yourself familiarized with that. Let us know if you want us to zoom in.
A. No, I can see it good.
Q. Okay. Does this list look familiar to you?
A. Yes. Yep.
Q. And do you recall who gave you that -- that list?
A. Gelia.
Q. Gelia gave you the list. Okay. Were there -- so that is a one-page list, and -- and that's what you were given at the beginning of the dry dock, is that correct?
A. Correct.
Q. Okay. So based on the list of this --
A. The best, you know, again, the list changes. This is her

format, and yes, it's -- I could not find this one. I usually keep them stapled together. I, you know, it could have been a little bit different when it first started off, but this is the list that we went by, yes.

Q. Okay. No, that -- that's good. So in relation to this list here, and we'll -- we'll leave that up for a little bit, did Lovrics SeaCraft engage in the work meaning did your employees do the work, or did contractors do the work?

A. No, we did the work on this list.

Q. Okay. So -- so Lovrics employees did it, all of this?

A. Ryan was a subcontractor for the boat, he used to work on the boat.

Q. Okay.

A. And I believe that he billed it through Lovrics, I need to verify that. No, we billed it through Lovrics, yes.

Q. Okay.

A. So this is -- he was acting as an employee.

Q. Okay. So then did you -- did you oversee all of these projects for the work on the *Scandies Rose* in 2019?

A. Yes.

Q. Okay. Was -- so when you did that, how often did you go on board the *Scandies Rose* in the dry dock, or at the dock?

A. I was on board at least twice a day.

Q. Okay. Was there any of the work that was not done by Lovrics SeaCraft Incorporated employees that was outside of this work

list?
A. They do have some of their own vendors that come in, and I can't say that I know. At the time -- I do not believe that they had too many vendors on it, but there were, you know, they'd buy and purchase and use other vendors which I, you know, they -- they have a, you know, supply us with USL&H and -- and insurance, and I don't have a record for any -- at this period of time.
Q. Okay. So for those outside vendors, and I'm just going to ask you, to -- to best of your recollection, if you could think back to that -- that timeframe when the *Scandies Rose* was dry docked at your facility, or dock side at your facility, if you could think back to any interactions that you had with outside vendors that had to come in to do any kind of work on the *Scandies Rose*? Do you recall any conversations or any specific vendors that might have come to do any projects?
CDR DENNY: Oh, did we lose Mr. Ehler? I think we may have lost Mr. Ehler.
CAPT CALLAGHAN: Yes, we did.
CDR DENNY: Okay.
CAPT CALLAGHAN: He's back.
CDR DENNY: Mr. Ehler, are you back with us?
CAPT CALLAGHAN: Sir, can you unmute yourself, pleas?
LT PELS: I believe he's (indiscernible).
THE WITNESS: I'm okay.
CDR DENNY: All right, we're back.

THE WITNESS: Okay now?

CDR DENNY: We got you, sir. Yes, we can hear you.

BY CDR DENNY:

Q. Okay, so where we were is I was asking you to -- to think back if there were any outside vendors that -- to the best of your recollection that worked on the *Scandies Rose*, and if you remember any projects that they were doing that were outside the scope of your work list.

A. The only one that I can think of is refrigeration as we do not do refrigeration work here in the yard ourselves. And generally, at least the style of boats have some refrigeration maintenance to do. We don't -- we often --

CDR DENNY: I've lost him. Okay, Mr. Ehler, if you can hear us, you are frozen. So we're going to look to -- we're going to look to maybe shift you to the phone if you can hear me. Does anybody else hear him?

LT PELS: I have him on the phone.

CDR DENNY: Okay.

LT PELS: (Indiscernible).

CDR DENNY: Okay. Okay, so for the benefit of the public, we are having some technical difficulties and we're just going to shift the witness over to a different platform so that we can better hear him.

LT PELS: You're still muted on the computer. We're thinking about moving you to a cell phone.

Mr. Fawcett, I believe we'll need this microphone turned on.

CDR DENNY: Mr. Ehler, can you hear us on the cell phone?

THE WITNESS: Okay, I can hear you on the cell phone. I think I got you back on the screen also.

CDR DENNY: Let's just mute him on the phone, and then we'll try this and -- otherwise, we'll shift it back. Okay.

Mr. Ehler, sorry for the technical difficulties, and thanks for your patience.

BY CDR DENNY:

Q. So the last thing I heard you say was that a refrigeration company was the only subcontractor that you recall as far as work that needed to be done on the *Scandies Rose* while she was at your facility?

A. Correct.

Q. Is that correct?

A. Correct.

Q. And so I do have a question with regards to that. How much oversight did you have to do for those subcontractors?

A. Just safety to make sure that they were doing what they needed to do.

CAPT CALLAGHAN: Sir, can you -- if you can hear us, we're going to switch you over to the phone line. We're going to use that as our primary from this point.

LT PELS: Yes, sir, this is Lieutenant Pels. We're going to just go through cell phone now and not Zoom.

THE WITNESS: Okay.

LT PELS: If you will speak for a couple seconds to see if we can pick you up on the cell phone on to our livestream system.

THE WITNESS: Okay. Mary had a little lamb, the lamb loved lamb. Now is that working?

LT PELS: Hold on one second, I'll let you know.

THE WITNESS: Okay.

LT PELS: Okay.

CDR DENNY: Okay, Mr. Ehler, can you hear me?

THE WITNESS: I can hear you.

CDR DENNY: Excellent. Thank you, sir.

BY CDR DENNY:

Q. Okay, so -- so I understand that you just said safety in terms of oversight for the outside contractors. What about other oversight as far as making sure that the scope of work was covered? Was there somebody else at the facility checking for those things?

A. No, it was pretty much my responsibility.

Q. So if they did not meet the scope of work of whatever they were subcontracted for, there was nobody overseeing that physically, is that correct?

A. Not from -- not from the yard. Not from -- not from Lovrics.

Q. Right. So for my clarification, was there anybody from the *Scandies Rose* that was overseeing the scope of work since you were just --

A. That would have -- that would have been Gelia Cooper. And there was another -- I'm trying to remember, Randy -- or they had another, he was an outside contractor I believe that they -- they hire for overseeing dry dock work and his name was -- it'll come to me. Not Randy -- keep going on, the name will come up.

Q. Okay. Mr. Ehler, so I was actually going to try and share the screen with you on some work from the condition and valuation survey on Exhibit 004. Lieutenant McPhillips, could you go to pages 43 and 44? Mr. Ehler --

MR. BARCOTT: Commander Denny, if I can interject for a second, I don't -- I'm not sure about Mr. Stacey, but I'm unable to hear Mr. Ehler on the telephone line through the Zoom connection.

UNIDENTIFIED SPEAKER: Take a five minute recess?

THE WITNESS: I'm having a very difficult time hearing you.

(Simultaneous speaking.)

UNIDENTIFIED SPEAKER: Let's do that, about five minutes maybe.

CAPT CALLAGHAN: We're going to -- we're going to take a five minute recess at this point just to -- to work out some of the technical difficulties. Please stand by. Five minute recess, it is now 10:40.

THE WITNESS: Okay.

(Off the record at 10:40 a.m.)

(On the record at 10:45 a.m.)

CAPT CALLAGHAN: Okay, it is now 10:45 and we are -- the hearing is back in session. Back to Commander Denny.

BY CDR DENNY:

Q. Okay, thanks, Mr. Ehler. So right now we have Exhibit 004 which is the condition and valuation survey done for the *Scandies Rose* in 2019. We're on page 43. And I'm going to have Lieutenant McPhillips slowly scroll through this as it is essentially a work list. And I'd like for you to take a look at it and verify that this was the work done in your shipyard. So go ahead and look at that, and then tell us when you need us to scroll up.

UNIDENTIFIED SPEAKER: Oh, no, it appears his phone is gone.

BY CDR DENNY:

Q. Mr. Ehler, does all of that look familiar to you in terms of what was done at Lovrics?

A. No. Not at the 2019.

Q. Okay. So let me rephrase.

(Simultaneous speaking.)

A. (Indiscernible).

Q. Okay, were the -- was the -- the vessel was hauled out like we talked about, and was the hull cleaned and coated?

A. Yes.

Q. Were zinc anodes replaced?

A. Yes.

Q. Was a pinhole leak in the port aft fuel tank repaired?

A. Not to my records here, no.

Q. So, Mr. Ehler, like, if you look at the screen right now, we have the work that was done at the shipyard. My apologies, what we had on screen was for the previous 2000 -- the previous work. So if you could look at paragraph 20 --

(Simultaneous speaking.)

A. (Indiscernible) okay.

Q. Yep, paragraph 20 where it says this was done during the 2019 shipyard period, does this -- does that jog your memory?

A. Can you just -- (indiscernible).

Q. Okay.

A. You know, this is more like the 2019, yes.

Q. Okay. So do you recall having fixed a pinhole leak in the port aft fuel tank?

A. I don't recall. It might have -- it might have been very quick one, but normally like that -- it's something -- I don't see it in my records, so I have -- you know, my guys that might do because they did not report it on the time cards, nor did I show on -- on an invoice.

Q. Okay. So -- so based on your records, you do not know who did that work?

A. I do not.

Q. Okay. How about a pinhole leak in the port water tank repair? Do you -- do you have any record of that?

A. I have -- I have one with a crack in port stern. I do not.

Q. Okay. That is fine. Did you guys do the shaft packing

renewal?
A. Yes.
Q. And the rudder post packing renewal, did you guys do that for the port packing gland?
(Simultaneous speaking.)
A. We did not do the -- we did not do the packing gland and the rudder post. I believe the crew on the vessel did that.
Q. Okay. How about a hole in the port strut being welded? Did your crew -- or did your -- did Lovrics employees do that?
A. We did that.
Q. The snag on a transducer being welded, did your employees do that?
A. We did that.
Q. How about areas of wear on the deck were removed, the steel deck below welded and repaired as necessary? Was that your -- was that Lovrics shipyard employees?
A. That was not us.
Q. Let me just -- for the record, that was not your employees, is that correct?
A. Correct. It was not our employees.
Q. Do you know who did that work?
A. Probably the crew.
Q. Is there any other work that you and I have not talked about that you have on your paperwork?
A. No, I think -- no, I think we've pretty much covered it.

(Indiscernible) very little steel work. We did some (indiscernible) on the PTO's hydraulics.

Q. Okay. Okay. So, Mr. Ehler, I'd like to shift the -- the conversation a little bit to focusing on welding work for the *Scandies Rose*.

A. Okay.

Q. You mentioned multiple times that you've said that you guys have done -- you guys did very little welding work on that vessel. We're aware of a project to replace wasted steel in an area around the forward starboard chute, overboard chute. Were you involved in any way or arranged for this welding work to be done?

A. No, I was not aware of it.

Q. Does the company named Aztec Welding, does that sound familiar?

A. Does what?

Q. Aztec Welding.

A. Aztec Welding was a subcontractor that they used, but he was not in our yard.

Q. Okay. Okay. So you said that you were on the vessel about twice a day. For about how many days were you on the boat -- or was *Scandies Rose* at dry dock?

A. It was mostly in dry dock. It was not, you know, it was at the pier, right, we're maybe on the vessel maybe two or three days. Pier-side work happened, let's see, it would be -- I believe she was up in dry dock for approximately two weeks.

Q. Okay. So during that time, so then you were on the vessel approximately twice a day. So if I could, you know, help you jog your memory, there was another overboard chute on the starboard side. The, you know, right side of the vessel, but it was back aft. Did that chute get closed in your shipyard?
A. No. I got a picture of the boat here. Starboard side aft, no, we did nothing around the works (indiscernible) steel work.
Q. Okay. Thank you. So I -- I do have some general questions for you. When there's welding done on your premises, does that require you to issue a hot work permit?
A. Yes, depending upon where it's at, but, generally, yes.
Q. And did the yard issue a hot work permit for the jobs that you did do?
A. No.
Q. So you guys did some welding work, but did not do a hot work permit, and tell me why please?
A. Because there is simply -- we're not in -- in a confined space. The fire department here in (indiscernible) does not require that unless it's more in -- in a confined, you know, you're under the (indiscernible). Everything we did was like we've done welding, a very small amount of welding work.
Q. And --
A. So we're not required to have a hot work permit.
Q. Understood. And then for any of the subcontracting work that you did have to do, were any hot work permits required?

A. I believe we had a hot work permit in the -- within the yard, no. No, nothing was ever issued in -- for -- for the yard.
Q. Thank you.
A. I would know.
Q. Okay. So did you make any recommendations for any work for the *Scandies Rose* where a decision was made by the crew, or the captain, or the owners where that work wasn't done?
A. Well, I know that they -- they asked me, you know, on -- on the shipyard, so do I get asked lots of, you know, you know, questions of what they should do. So I give advice and it's up to the -- the owners or whoever to either follow the advice or not. In other words, you know, I'm trying not to -- I'm looking for work for some -- not like that. You know, they ask me a question, I answer it to the best of my ability, and it's up to their decision on what to do from there.
Q. I understand that. Did you make any recommendations to the best of your recollection that -- that the owners or representatives opted not to do that you can remember, and what were those?
A. I think there was some issues with the PTO, (indiscernible) PTO that to rebuild or not to rebuild, and they were having issues with it over the years with that. I think I made some recommendations to not do (indiscernible), do a much more expensive (indiscernible). And I said do it this way, which I think they did, but I can't be sure.

Again, these were not made -- we only took -- we inspected the gears, and it was rebuilt and -- by an outside vendor. It was taken out of the boat and (indiscernible). So other than that, I really can't recall -- it's only the back and forth (indiscernible), you know, what they should do, what they shouldn't do. But, you know, I can only tell you that they, you know, they're the ultimate ones to make the decision.

Q. Okay. That's fair. Thank you. Were you in any way involved in arranging for a surveyor or participating in the survey in any way?

A. No.

Q. Is there anything that I might not have covered that you think might be important for us to know?

A. No. I -- I think what I can say about the -- the *Scandies Rose*, I mean his other boats, he does maintain them I think probably better so than most that I see in this yard.

Q. Okay. And I have one last question, and -- and then I'll turn you back over to the chairman of the Board. In -- in contracting of this dry dock, did you provide all of the equipment, or was any of the replacement material, or any -- any kind of stuff that you were contracted to either install onto the vessel, was any of that provided by not your shipyard, meaning the owner or somebody else?

A. No. On this particular, we supplied the paints, the zincs. The generals and hydraulics, that was rebuilt I believe offsite,

that would have been provided elsewhere.

CAPT CALLAGHAN: That's okay if you can't find it right now, sir. I think --

THE WITNESS: (Indiscernible) but I believe that would be the only thing that was probably done outside of the ship, you know, anything majorly done was probably the PTO.

CDR DENNY: Thank you so much.

Captain, I have no further questions.

CAPT CALLAGHAN: Thank you, Commander Denny.

Now, sir, I'm going to turn it over to the -- Mr. Barnum with the National Transportation Safety Board.

Mr. Barnum?

MR. BARNUM: Thank you, Captain.

Thank you, Mr. Ehler, for taking time, speaking with us today. Really appreciate it. I have a few questions for you. I hope you have some answers.

Lieutenant McPhillips, could you bring up Coast Guard Exhibit No. 90 please?

BY MR. BARNUM:

Q. So, Mr. Ehler, you had -- you had identified a -- a Lovrics work list that was dated 5/13, the work that was completed on the vessel, it was planned to be completed, the initial task, if you will. You said it changed quite a bit. Did you ever see this list that's presented here? So dated *Scandies Rose*, April 2019 shipyard worklist?

A. I'm only seeing your face on the screen. I don't see the list. Oh, there we go.

Q. Okay.

A. (Indiscernible) it looks like.

Q. All right. Any luck, Mr. Ehler?

CDR DENNY: He's muted on his phone. You might want to tell him he's --

MR. BARNUM: Mr. Ehler, it appears that you are muted on your computer screen. I'm not able to hear you.

LT PELS: Mr. Ehler, can -- your -- your mic's on mute. Mr. Ehler, can you try unmuting your phone?

CDR DENNY: Lieutenant Commander Comerford, do you have any ability to unmute his phone?

LCDR COMERFORD: I don't know. Should I try?

CAPT CALLAGHAN: Can you unmute his computer?

LT. PELS: He can't hear.

THE WITNESS: Okay, just unmuted the computer, can you hear me now?

MR. BARNUM: There you go. Yes, I can hear you fine. Thank you, Mr. Ehler.

BY MR. BARNUM:

Q. Can you still see that document, the *Scandies Rose* 2019 shipyard work list?

A. I see it here, yes.

Q. Okay.

A. There's a possibility I saw as the master list of things to do, but, you know, by the time it gets to me, it is pretty what we did. And that smaller -- that other list that you showed me.
Q. Okay.
A. That master list, I was not involved in -- in -- in all the -- all the work that was done. The only things that were done in Seattle before it came up here.
Q. Okay. And then the second -- the second column there, it says initial vendor thoughts, and I'm reading down through, there's individuals' names, and then there's some abbreviations. The letters S-Y, what would you say that would refer to? Lieutenant, if you could scroll down to page two of this document please.
A. (Indiscernible) that. That's -- that's when it would have been. (Indiscernible) hydraulics, which is the hydraulic outfit, and I'm not sure which one it would be (indiscernible) configuration.
Q. Could it stand for shipyard?
A. Okay. So we looked at that.
Q. Okay. Possibly. Could you scroll down to page two please, Lieutenant? Item -- let's see, 64. Mr. Ehler, can you see item 64? Maybe Lieutenant McPhillips could zoom in. Could you please read that?
A. The regular starboard trash chute, and one (indiscernible) starboard aft.

Q. Okay. And then with an S-Y-question mark. Was this -- was this item -- this work list item ever discussed with you at your facility?

A. No. Nope. (Indiscernible).

Q. No. Okay. So there is no quote given by you in -- in discussion that, yeah, Lovrics completed that work?

A. No.

Q. Okay. Thank you. Some -- some general questions on -- on the vessel. You had mentioned that this was the first year you had seen the *Scandies Rose* in your shipyard. Do you know where she would have went previously?

A. Well, probably (indiscernible) a yard in Seattle.

Q. Okay. Did you hear anybody -- any names?

A. No.

Q. Okay.

A. Other than Standard (indiscernible) shipyard every once in a while. Union Bay.

Q. Yeah. Is that -- is that -- do you see that a lot, vessels, you know, going to multiple different shipyards throughout the years? Or is it typical that you see them returning to the same one over -- year after year?

A. No, they may make the rounds, it depends on how busy each yard is. So we only have so much time to do it. So we see -- we don't always see the same vessels every year because of timing and other projects (indiscernible).

Q. Okay. What was your professional opinion of the overall condition of the *Scandies Rose*?
A. As I stated earlier, so what these boats are, I would say they're a little bit above average both at least in (indiscernible) but the upkeep is better than most.
Q. Okay. So the -- a boat in similar size, and construction, and function as the *Scandies Rose* is somewhat above average?
A. Yes.
Q. Okay. And how about the management, you know, the owner, the port engineer, you mentioned Gelia Cooper, how -- were they attentive to the vessel compared to other vessel management?
A. (Indiscernible) yeah, that's the (indiscernible). So for a vessel like this having a (indiscernible) -- having a designated person is above normal. She's very attentive to the vessels and to the crews.
Q. Understood. So Commander Denny touched on this, I wanted to circle back to it. Aztec Welding, are you familiar with that outfit?
A. Yes.
Q. Have they performed work at your yard previously on other projects?
A. No, I don't allow them in the yard.
Q. Okay. Is there a reason for that?
A. I -- I don't approve, (indiscernible) list.
Q. Okay. So assuming -- assuming you mean the owner of the

company, so his reputation is -- is not one that you would like to see at your yard.

A. Exactly.

Q. Where did you -- where did you form your opinion of him?

A. Over the last 25 years of working in the industry.

Q. Had he ever performed work for you in the past?

A. He's done some work down at Lovrics (indiscernible) Lovrics.

Q. Okay. Could you go into that work a little bit for us, you know, was it welding work and how the job was performed?

A. Welding work.

Q. Okay.

A. (Indiscernible) about he -- his business ethics, he's -- he's open about it, and just don't use him --

Q. Yeah.

A. -- in -- in a lot of years.

Q. So, you know, obviously there was an issue with his business ethics there, you mentioned. How about the actual performance of work? How were the welds?

A. He was an okay welder.

Q. The owner of the company there, the welder, is he complete -- is he conducting the welding, or did he have a crew?

A. (Indiscernible) who was conducting. He had no crew.

Q. Okay. In your experience when you conduct welding, or your crew conducts welding on vessels within your shipyard, what is the standard operating procedure as far as non-destructive testing

after the weld is completed?
A. Well, we're -- we're an ADS-approved yard, we follow U.S. Coast Guard ADS (indiscernible) and -- and -- and welding. Regardless of whether it's an ADS boat or not, we follow the same procedures as it -- as it was being ADS inspected or Coast Guard inspected.
Q. Do your welders carry any certification for that?
A. Yes.
Q. Okay. And do you perform any dye-penetrant testing or any other non-destructive testing on the welds?
A. Yes, we do it all depending upon the circumstances and the instructor who wants to see it, you know, (indiscernible), you know, dye-pen works really well in certain instances or (indiscernible) works better in other areas, you got vacuum boxes (indiscernible) that imitate.
Q. Okay.
A. Again, (indiscernible).
Q. So understanding that certain welding projects that may be minor such as a racket or whatnot might not require that additional oversight. But a job the scale of, in this particular instance, cutting out a weigh chute and re-welding it, potential -- potential to have some -- for that application to experience some -- some weather, some -- some water, would that be a job if completed in your shipyard under your supervision to be --
A. We would -- yeah, yeah.

Q. -- to be -- to have some -- some non-destructive testing or some -- some more -- some dye-penetrant testing on the welds?
A. (Indiscernible) with a dye-pen that particular (indiscernible) a dye-pen will show up if you've got, especially with, you know, hinges and stuff like (indiscernible) get a lot of stress build up and (indiscernible) and with the dye-pen issue (indiscernible).
Q. Okay.
A. We -- we -- we're (indiscernible) as we're -- as we're welding.
Q. Okay. You're -- are you familiar with a product called Splash Zone?
A. Yes.
Q. Is -- is that a -- something that you utilize within your shipyard often?
A. It's an emergency repair medium, they use it a lot to be able to -- you can put (indiscernible) on to it. But it's -- we don't apply it in the -- in the -- we -- we -- we've taken that out and put Splash -- Splash Zone is more of an emergency repair that's carried on the vessels.
Q. Okay. Understood.
A. (Indiscernible) it's a repair medium.
Q. So, you know, for -- it's an underwater epoxy basically that's used onboard vessels in an emergency.
A. Correct.

Q. Okay. Thank you. Would you ever recommend that to be used in lieu of welding new material in -- in order to save money?
A. No. It -- it -- it's not a structural medium per say. I mean it gets you home, but (indiscernible) yeah.
Q. Okay.
A. It's not something that's very structural.
Q. Great.
MR. BARNUM: Well, that's all the questions I have, Mr. Ehler, so I really appreciate it. Thank you for your insight there, and the cooperation with this investigation.
THE WITNESS: Okay.
CAPT CALLAGHAN: Thank you, Mr. Barnum.
Mr. Ehler, I'm going to now turn it over to attorney Mr. Stacey.
Do you have any questions, sir?
MR. STACEY: Good morning, everyone, we -- we do not. Thank you very much, Mr. Ehler.
CAPT CALLAGHAN: Thank you, Mr. Stacey.
Now turning over to Mr. Barcott, any questions from you, Mr. Barcott?
MR. BARCOTT: Thank you, Captain.
Mr. Ehler, no questions for you at this time. Thank you very much for your testimony this morning.
CAPT CALLAGHAN: Okay, thank you, Mr. Barcott.
Just one more, I'm going to go to Lieutenant Commander

Comerford for an addition follow-on question, sir.

LCDR COMERFORD: Good morning, Mr. Ehler, I would like to --

CAPT CALLAGHAN: You're on mute, Mike.

LCDR COMERFORD: I'm muted? Good morning, Mr. Ehler, I'd like to just turn attention to a couple of exhibits real quick.

Lieutenant McPhillips, could you bring up Exhibit CG 119 and go to page three at the bottom please?

BY LCDR COMERFORD:

Q. This is the condition and valuation survey from 2009. On the very last line, line four under this paragraph, it reads "A crack on port rudder shoe support was repaired while the vessel was in dry dock in 2009." Do you recall if Lovrics did that dry dock in 2009 that is right around the time when you started?

A. We -- we did not.

Q. Okay. Thank you. And could you --

A. (Indiscernible) look on my computer, but I'm 99 percent positive we did not do the dry docking at that time.

Q. Was that --

(Simultaneous speaking.)

A. (Indiscernible).

Q. Sorry, go ahead, sir.

A. I -- I -- I should probably double check on that, but I am almost -- I'm 99.9 percent positive we did not dry -- dry dock it at that time.

Q. All right. Lieutenant McPhillips, could you turn the

attention to CG 004? It'll be page 36 on the bottom. All right, when it's coming up, sir, this is the 2019 condition and valuation survey. And the comment number three mirrors the comment from the 2009 report, it says a crack on the port rudder shoe support was repaired while in dry dock in 2019, summarizing, sorry. Do -- could you explain what the rudder shoe is in this comment? We can bring up a picture if it would help explain it?

A. No, what it -- what -- there -- there's a bearing at the bottom of shoe, the rudder (indiscernible) called the pinto bearing.

Q. Mr. McPhillips, if you could go to page five, the bottom of page five of this report. Okay. If you can go up a little bit, Mr. McPhillips? All right, so zoom in on the photo in the center so it's at the bottom of the rudder, or is it up at the -- the -- the joint of the heel?

A. (Indiscernible). Yeah, the heel. You got your marker on it there, and then just below the propellers, and where the rudder shaft down, that's where it is, the rudder shoes.

Q. And -- okay. Thank you. And if we could turn our attention to -- sorry, one last question on that. Was there any discussion with you on problems they were having with the rudder shoe?

A. Well, I believe they were. I have here that (indiscernible) in my invoice, and you go to the number 10, we did (indiscernible) patch in the port stern strut (indiscernible).

(Simultaneous speaking.)

Q. Mr. McPhillips, could you -- we'll put that up for you, sir. Could you go to Exhibit 111, Lieutenant McPhillips, to page two and zoom in on line number two -- 10, item number 10 please? It'll be the second page. Is this the invoice you were talking about, sir?
A. No, I still have the picture up.
Q. Well, you have it in front of you, sir, you can go ahead and read and we can -- while we have it up, we can follow along.
A. Number 10 item, (indiscernible) dry dock.
LT PELS: Oh, we lost him, he went on mute.
LCDR COMERFORD: Okay. You're on mute, sir. You're -- one second, sir. You are -- we're experiencing some technical difficulty hearing you.
THE WITNESS: Okay, can you hear me now?
BY LCDR COMERFORD:
Q. Yes, we can, sir. So if you could read number 10 on your side, or can you see the screen now?
A. I can see the screen.
Q. All right, is this is the invoice that you were reading from?
A. Correct.
Q. Okay. So number 10 was the -- referencing the issues on the -- the rudder -- rudder shoe?
A. Right. But this was on the (indiscernible) which was -- the section that goes up to the (indiscernible).
Q. Okay. If you scroll up, (indiscernible) just there, that's

good. On the top, the -- on the top of the list of items, it says PO number, verbal Dan, and just -- is that Dan Mattsen you're referring to?

A. Yes.

Q. Okay. And then on the first page of that invoice, it made comment that zincs were -- I'm paraphrasing here, sorry, but it mentions some work for the zincs, and install new owner supplied zincs on line item seven.

A. Yes.

Q. And was that on -- was that -- do you recall if that was on the outer hull or were there other places that zincs were installed?

A. It was on the outer hull (indiscernible) so he would bring his own zincs, but on this particular job, he didn't have enough, so he needed some of our zincs. And so that's why you see on the next line item, I have -- I supplied 14 of them. And this would be on the outside of the boat, all on the outside. (Indiscernible).

Q. Thank you for your time today, sir.

LCDR COMERFORD: Captain, that is all the questions I have.

CAPT CALLAGHAN: Thank you, Lieutenant Commander Comerford.

BY CAPT CALLAGHAN:

Q. Mr. Ehler, I just have two follow-up questions for you. So is Ocean Beauty a facility name that you are familiar with?

A. Yes.

Q. Okay. And just -- do you know if that's an area where Aztec does any welding, sir?
A. I believe they do, yes.
Q. Thank you. All right. With regards to Aztec's reputation, sir, how well would you say that reputation is known across the industry?
A. Everybody gets to -- you know, you step on somebody's toe once or twice, it gets around. He has a good reputation with some and poorly with others. It's goes across the Board of (indiscernible) professional. He started out in the back of his car. He -- he cut corners (indiscernible). Like I said, I -- I know nothing of him over the last 12 years. I have -- have no contact with him.
Q. Okay, sir. And then in regards to pricing, would you -- how would you compare pricing from Aztec to similar welding that you would do there at Lovrics?
A. I -- I -- again, I have no contact with him. I don't know, you know, we -- we're competitive, we're -- we're, you know, in with everybody else. I don't know whether he's higher or lower. He used to be always higher than most. When I -- when I used him before, he was always at a premium expense.
Q. Okay. Thank you for that, sir. And so last question. So would you -- would it be surprising to you based on your experience with how Mr. Mattsen maintained his vessels that he would use Aztec to do work on -- on his -- on the hull of his

vessels?
A. I -- I can see him using an independent because we can't -- you know, I don't travel. In other words, he has to bring the boat to me. I don't go to the boat. So Aztec is one of those individuals that do travel. So if your boat is somewhere else, he would go to wherever the boat is to do the work. So I could see Mattsen using him if he was the only one available.
Q. Okay. Thank you for that, sir.
CAPT CALLAGHAN: Sir, that's all the questioning we have for you today. So at this point, you are now released as a witness at this formal hearing. Thank you for your testimony and your cooperation. If I later determine that this Board needs additional information from you, I'll contact you through -- I'll contact you through our legal representative. If you have any questions about this investigation, you may contact our investigation recorder, Lieutenant Ian McPhillips. Thank you very much, sir.
THE WITNESS: All right, thank you.
(Witness excused.)
CAPT CALLAGHAN: It's now 1126. This hearing will now take a recess, and we will reconvene at 1130.
(Off the record at 11:26 a.m.)
(On the record at 11:30 a.m.)
CAPT CALLAGHAN: Okay. It's now 1130. This hearing is back in session. We will now hear testimony from Mr. Erling Jacobsen.

Mr. Jacobsen, Lieutenant McPhillips will now administer your oath and ask some preliminary questions.

LT McPHILLIPS: Please stand and raise your right hand.

(Whereupon,

ERLING JACOBSEN

was called as a witness and, after being first duly sworn, was examined and testified as follows:)

LT McPHILLIPS: You may be seated. Please state your full name and spell your last name.

THE WITNESS: Erling Emmanuel Jacobsen, J-a-c-o-b-s-e-n.

LT McPHILLIPS: Please identify counsel or representative if present, and have them state and spell their last name as well as their firm or company relationship.

THE WITNESS: I don't have any counsel.

LT McPHILLIPS: Please tell us what is your current employment and position.

THE WITNESS: I'm currently a marine surveyor and president of my own company, Fisherman's Maritime Services. I'm also the executive director of Inter-Cooperative Exchange which is a cooperative crab fisherman. I'm also executive director of the Bering Sea Arbitration organization.

LT McPHILLIPS: What are your general responsibilities in those jobs?

THE WITNESS: We're a fisherman's maritime services, a -- and I'm the only employee, so I assume all responsibilities. For the

Bering Sea Arbitration organization, I'm the executive director. I oversee the activities of the organization. And same with Inter-Cooperative Exchange.

LT McPHILLIPS: Can you briefly tell us our relevant work history?

THE WITNESS: As -- so like my resume?

LT McPHILLIPS: A -- just a brief history, sir, yes, short -- in short resume.

THE WITNESS: Well, I've been involved in the fishing industry all my life. And I've been a marine surveyor since 1995. So that's the short of the applicable work history.

LT McPHILLIPS: Yes, sir. What was your education related to your position?

THE WITNESS: My education related to my position, I guess education is related to everything. I have a bachelor's degree in zoology and a master's degree in -- in anatomy and physiology.

LT McPHILLIPS: Okay.

THE WITNESS: Doesn't really apply to this position, but my education and relevance to this incident is my time in the fishing industry.

LT McPHILLIPS: Do you have any professional licenses or certificates related to your positions?

THE WITNESS: I -- yeah, I suppose I've been quite a few classes. It should all be in my resume. Put everything in there. You want me to pull it up?

LT McPHILLIPS: That's not needed, sir.

THE WITNESS: Okay.

LT McPHILLIPS: All right, thank you, sir. Captain Callaghan will now have follow up questions for you.

THE WITNESS: Okay.

EXAMINATION OF ERLING JACOBSEN

BY CAPT CALLAGHAN:

Q. Good morning, Mr. Jacobsen.

A. Good morning.

Q. Thank you for being on live with us and attending the hearing virtually today. If at any point we ask a question that you do not understand or cannot hear because of technical difficulties, please don't hesitate to say so or give us a -- a visual indication virtually so -- so we can go ahead and repeat or rephrase the question.

We will take breaks throughout the hearing, but if you need a break, please let us know. We are currently scheduled for this session to go -- run from 1130 to noon and take a -- a lunch break and then resume again at 1300.

Using the Zoom platform, we have the ability to share exhibits virtually, so the recorder, Lieutenant McPhillips, will put any exhibit up on the monitor on your virtual desk top. If at any point you need to point to something out on the exhibit, Lieutenant McPhillips can highlight the area for the benefit of the Board and the livestream audience.

Sir, all my questions today are set in the timeframe leading up to and including the accident date of December 31st, 2019, with some additional questions not related to the incident, but to the cooperatives and the Bering Sea Arbitration organization.

So, sir, before we go further into questioning, I know we -- you briefly described your background, but can you go into your background as a marine surveyor, how you got started, and how long you've been a marine surveyor, sir?

A. Sure. So I -- I was operating a factory long liner in the Bering Sea in the early 1990s, and I had some heart issues. And so I thought I should probably pursue an occupation that did not require me to be so far away from medical facilities.

And so -- and I had an experience a few years before with a marine surveyor, and so I had thought about doing that professionally. And so I took an online course, and started surveying -- I started my company in 1995, I stared surveying in 1993. And just a few boats, and I was still fishing, and then I -- I left fishing in 1995 and started surveying full time. So, been doing that since.

Q. Thank you, sir. So before I go into more questions on marine -- the marine surveyor aspect, you talked about a lifetime in commercial fishing before you moved over to being a surveyor. Can you talk about -- give us a sense for what fisheries you fished in, and what location, sir?

A. I had fished the west coast of the United States from British

Columbia, southeast Alaska down to California. I fished over in Russia on crab boats. I've operated crab boats and trawlers, long liners, factory long liners, factory trawler, factory crab boats. I've been on a number of different crab boats, so -- in my career. And so I had a pretty broad experience in a number of fisheries all over the west coast of the United States and Russia.

Q. Okay, thank you for that, sir. So you mentioned taking some courses, some online training program for becoming a marine surveyor. Can you talk more about what that training was, what kind of certification you obtained through that program?

A. I attended this one place called Master Marine Surveyor, and this was from an online course. It was an introduction for marine surveying. The primary credentials that I -- they honored my experience.

Q. Okay. Is that -- is it a requirement to become a marine surveyor to attend that -- that type of training?

A. No, it is not.

Q. Okay, thank you. And are you a member of any marine surveyor professional associations?

A. I am a member of the United States Surveyors Association.

Q. Okay. What does a member in such an association provide for you as a member?

A. They -- they provide the basis for conducting fishing vessel safety examinations, that's why I retain my membership in that organization. And -- and -- and they review safety inspections,

or safety exams. A surveyor needs to be a member of a class society or a third-party organization, and the United States Surveyors Associations is a qualified third-party organization.
Q. Okay. Okay. So in addition to the certificate and the online training that you did, was there any on-the-job training or any apprenticeships that you did with an experienced marine surveyor?
A. No.
Q. And can you just briefly provide us -- so an overview of -- of the different services that you provide as a marine surveyor?
A. I do condition and valuation surveys. I've done shipyard project surveying. Valuation, vessel valuations, expert witness work, accident investigations. I do a bit of -- I work on insurance claims, things of that nature.
Q. Okay. And to just clarify, you mentioned accident and casualty investigations, had you been contacted previously or have you -- to conduct any investigatory activity into the *Scandies Rose* following the December 31st incident?
A. No, I have not.
Q. And so can -- can you give us -- talk about the extent that -- that you would normally go through for a condition and valuation survey?
A. I'm not sure what you mean by extent, but I can describe what I do.
Q. Yes, sir. That -- that's -- that's what I was getting at.

A. Yeah. So I go onto a vessel. I usually like to see it when it's hauled out after the bottom is cleaned. And so I usually do my first examination there. I look at the bottom, and then after it's painted and before it goes back in the water, you know? And then concurrently or at some point in the process, I'm -- I'm top side, and go through the vessel top to bottom, stern to stern. And look at everything I can see, and if there are any places where I could get in (indiscernible), and have a good look at the vessel. And it might be done in one visit, it might be -- it might require several visits. So, yes, so that's what I do.

Q. Okay. And is there any industry standards, or checklist, or anything of this sort for conducting a condition and valuation survey?

A. I suppose there's some industry -- there are industry standards. There is -- there's no kind of -- there are surveyors that use checklists. I'm not a checklist surveyor because I feel that when a surveyor uses a checklist, he checks the things on his list and that's the extent of it. And I want to take a more holistic approach and see everything on the boat.

Q. Okay. So when you say, of course, there's an industry standard, what form would that industry standard be in? Is it through the association, or anything of that sort?

A. So the primary success of a surveyor in my opinion depends on whether or not insurance companies find their reports acceptable. And so the insurance companies really have the de facto say in

what's acceptable or not, and I don't send my reports to anybody else for examination. A condition and valuation survey typically would go to an insurance company or a bank. And so there are standards of acceptance that those institutions have as well as the boat owner probably has, his expectations and what's involved in a survey and will either accept it or not.

Q. Okay. So along that -- along that -- those lines, who then normally employees you to conduct the survey? Is it the boat owner, the banks, or the insurance companies?

A. I've been employed by all three.

Q. And do you have anyone that works with you -- so do you have anyone that -- that goes with you and assists you during your surveys?

A. Not typically. I have had friends -- I know others that (indiscernible) and so I've had assistants or associations. They're training other surveyors so there have been five surveyors in this area that I've trained.

Q. Okay. And then the method you used to record the survey as you're going through and conducting the survey, what methods do you use to -- to record that information?

A. I'm pretty old-fashioned. I have a little paper notebook and -- and a pen, but I am working on software for automating the surveys, at least I think so. Hopefully in the near future, it'll be much easier to conduct surveys, at least for writing a report. So -- but right now I'm just using pen and paper and camera and --

and that's about it. A few other tools in my box, but that's the main thing.

Q. Okay. And then with -- if you're employed to -- to visit a vessel subsequent times, do you maintain a database with surveys to work off of, or is each one its own independent survey from the start?

A. I never start from nothing anymore. I -- if I've surveyed a vessel before, I use that survey as a template for the new survey. If I haven't surveyed a vessel before, I will use the survey from a similar vessel as a template for using report writing and cut down on the hours of time spent in front of my computer screen.

Q. Okay, sir, I'm going to shift a little, and we're going to just talk particularly about your work on the *Scandies Rose,* and then any other work that you've done with Mattsen Management Corporation or Company. How -- how long have you been performing work for the Mattsen Management Company?

A. I believe I did the first survey, my first survey on the *Scandies Rose* in 2001.

Q. And with regards to this -- the work you've done on the *Scandies Rose*, sir, can you tell us what types of surveys you have performed on the vessel?

A. I have done condition and valuation surveys, and I've done some damage surveys related to engine damage on a couple of different occasions.

Q. Do you happen to recall the timeframe that you were employed

to do the damage surveys?
A. 2015, and let's see, there was engine damage in 2015. Let's see, oh, they lost a rudder. And then I've done a couple of different engine surveys for them. Let's see. I don't recall what year those were. I'd have to look them up.
Q. Okay. That's okay for now, sir. So at any point have you been outside your capacity on the -- as a surveyor on the *Scandies Rose*, have you -- had you ever been on the vessel before in any other capacity?
A. Yes, I have.
Q. Was it as an employee?
A. No.
Q. Can you tell what capacity you were on board, sir?
A. I was tendering up in Bristol Bay. Tendering is a vessel accepts fish from smaller vessels and delivers them -- or a different vessels, and delivers them to a cannery. And so I was running a boat called the *Jennifer Airy* (ph.) in -- at Bristol Bay during the salmon fishery as a tender. And the *Scandies Rose* had refrigeration problems. And so I went over to the *Scandies Rose* and helped them with their refrigeration problems.
Q. Okay. Have you ever been -- as part of your surveys, have you ever gotten underway on the *Scandies Rose*?
A. I don't recall being underway. I think I would say no, but I'm not 100 percent certain. I just don't recall being underway on the *Scandies Rose* at any time.

Q. Okay. And so now, in general, and your -- based on your overall impression of the -- the *Scandies Rose* itself, how was the maintenance of the *Scandies Rose* compared to other commercial fishing vessels you've been on?

A. I would describe it as excellent. I surveyed the *Scandies Rose* in 2001, 2003, 2005, 2007, '08, '09, '11, '12, '13, '14, '15, let's see, I went on it '16, but I didn't do a full survey, '17, and '19. And a damage survey in '15.

So it's the vessel I've surveyed the most out of any vessel in my portfolio. They always requested that I come and do surveys when they're in -- in shipyard, and they always took very good care of the vessel, and I remember being impressed by the attention to vessel safety and keeping the vessel maintained.

They had a lot of engine problems, and so they did have some special needs in that department. There was some -- a couple of auxiliary engines that had holes in their block. So I -- I wasn't involved, I am not an engine mechanic, but I was involved in documenting some of the issues they had related to their engines. But they always addressed them, and tried to address everything as -- as (indiscernible) on the vessel as soon as they could and in the best way they could. But they just did a great job.

Q. Great. And so similarly along the same lines, how, you know, in your overall impression, how -- how were the operators and the crew compared to some of the other commercial vessels on which you had -- had been -- been on board and visited?

A. So I think Gary was I think Captain. I had never worked with him -- I've never worked with him, I've known him for many, many years. I was not impressed by the crew one way or another. They seemed like a typical crew and didn't have any particularly good or bad impressions of -- of the crew.

I always thought highly of Gary. I thought he did a good job on the *Scandies Rose* and was very attentive to making sure it was a safe platform. So I can't think of any problems or issues with the captain or the crew that I -- I would be aware of.

Q. So you said you had known Gary for quite a long time, in what capacity had -- had you known him?

A. Well, I knew Gary and his dad for years. I mean we were -- we both grew up in the fishing industry. So just known him by association.

Q. Okay. And last along the -- your overall impression. So can you speak to your impression of the hull condition of the *Scandies Rose* with regards to any, you know, the overall condition of the hull itself?

A. Well, I thought the hull was in good condition. I -- I haven't conducted an audio gauge on the boat for many years. I don't audio gauging anymore. But (indiscernible) out of the years I -- I did an audio gauge study of the hull, it was in pretty good shape and -- and nothing visually since that time other than minor cracks and things that are fairly common in all boats.

Q. As -- as a marine surveyor and someone that appears -- that

used to do audio gauging, is there a -- a guideline for how often you would expect a hull to be gauged?
A. There are guidelines, but they -- I'm not aware of any that are applicable to the *Scandies Rose* as far as being a requirement.
Q. Is -- is there a -- okay, outside of being a requirement, is there an industry best practice that may not be a -- a requirement for some?
A. I suppose you could say that there is an industry best practice, but I wouldn't be able to tell you how many years that would be. So, you know, other than it's not in any marine surveyor's handbook that says how often a boat should be audio gauged as far as I'm aware of. With the *Scandies Rose*, there's requirements and guidelines for other types of vessels, but this is an uninspected fishing vessel, and I am not aware of --
Q. So are you -- are you aware of the requirements for an inspected fishing vessel that would be over 200 gross tons?
A. I am aware of them, yes.
Q. And can -- just for our benefit and education, can you just tell us maybe expand what the hull gauging requirements for a vessel over 200 gross tons?
A. As far as the --
Q. Frequency?
A. -- frequency. I'd have to look it up.
Q. But there is a -- an established frequency for how often it would be conducted?

A. I didn't say that, but there could be.
Q. Okay. Sir, as a -- a matter of course as a marine surveyor, do you normally review the stability of the vessel when you -- during -- during the time when you attend the vessel?
A. No, I'm not qualified to do that.
Q. Okay, sir, and you mentioned as part of your member to the association, one of the benefits being it -- it was a requirement to be a -- a third-party examiner, do you conduct any examinations?
A. Yes, I do.
Q. Okay. And can you tell in a -- in a general sense how many third-party examinations that -- that you have conducted?
A. Not off the top of my head, no. I've done quite a few.
Q. And -- and how long have you served in -- in that role, sir?
A. Oh, boy, since the mid-1990s.
Q. Okay. And then, sir, are you aware of any -- of other surveyors that do both survey work and -- and act as third party examiners?
A. Yes.
Q. Okay, sir. I -- I know it's -- it's now 1202, we had been scheduled to stop at noon to take a -- a break for lunch. Are you okay proceeding to -- to -- or taking a break now and then proceeding as scheduled?
A. Sure. Yeah, I -- are there any questions that you're going to ask that I might need to look up since a lot of these things go

back to the 90s and I'm 66 years old and have trouble remembering back then?

Q. It shouldn't be, sir. So I -- I tried to use this time to kind of set knowing that it was going to be a short piece -- shorter piece of time beforehand, I tried to just set some background. And so my intent is to get into specifics on the *Scandies Rose*, and particularly the survey evaluation report from 2019, sir, when -- when we come back from the break.

A. Sounds good.

CAPT CALLAGHAN: Okay. It is now 1203. This hearing will take a recess and resume at 1300.

(Off the record at 12:03 p.m.)

(On the record at 1:00 p.m.)

CAPT CALLAGHAN: Okay, it's now 1300. This hearing is now back in session. We'll continue a witness interview of Captain Erling Jacobsen. Let's just go over -- Mr. Jacobsen, so thank you for coming back after the break. Our schedule currently has us going from 1300 until 1400, sir, and I'll try and do my best to make the best of that time that you.

Okay, sir, I'm going to now kind of, as I mentioned earlier, kind of switch over to the *Scandies Rose* in particular and particularly the latest condition and valuation survey from 2019.

Lieutenant McPhillips, can you please pull up Coast Guard Exhibit 004?

BY CAPT CALLAGHAN:

Q. This is the condition and valuation survey of the fishing vessel *Scandies Rose* conducted by Fisherman's Maritime Services with dates of inspection of April 27th, May 24th, June 1st, 5th and 6th of 2019. Okay, are you able to see that, Mr. Jacobsen?
A. Yes.
Q. Sir, can you explain who hired you to perform the survey?
A. I was hired by *Scandies Rose*.
Q. And do you remember who, within the *Scandies Rose* fishing company, hired you, in particular, sir?
A. No, I don't.
Q. Sir, how often -- you mentioned earlier that you had been on the *Scandies Rose* quite often, almost on a yearly basis. So, in that regard, are there any negative outcomes if the vessel -- for the vessel owners if those surveys are not performed?
A. Each insurer will have its own requirements as to the periodicity of the surveys, but the first negative outcome would be that the vessel doesn't get insurance. Another negative outcome might be that there are some financing opportunities that might be missed without a current survey, or a financier might want to renegotiate a loan or something like that if the current survey is not performed.
Q. Okay. And as we pull this up, I kind of listed several days over which it was indicated that this survey was performed. Is it normal for you to conduct a survey like this, spanning several days?

A. That's normal for me.
Q. And is there a purpose that you would normally scan it out through the yard period?
A. My purpose is that I like to see the boat in its final condition before it sails, but I also want to see repairs in progress, and I want to see the boat when it's looking its worst. And so, I'll go on the boat several times, typically. And sometimes it's just a mere logistical issue as I am short on time a lot of times, so I will have to leave the boat and do something else and then come back later. So sometimes it's just scheduling issues, I'll see a boat when I can. But mostly it's because I like to see the boat at various stages of its shipyard progress and get a good idea of how things are progressing on the boat.
Q. Okay. Over those several days that visited the *Scandies Rose* during the survey period, was there any major -- any repairs that you would consider major hull repairs or any other significant repairs that you noted during that time?
A. I noted the repairs towards the end of my survey. I like to kind of keep a running tally of all the significant repairs and rebuilds that were done on a boat to -- that's in my survey portfolio, so I have a fairly extensive history on the repairs and additions to the *Scandies Rose*. It looks like starting on Page 38 in 2000 -- I think 2001 was, I believe, my first survey, but I could have done and earlier one before I went to digital. But I have things going back to 1998 on my repair list.

And then the latest one would have been the shipyard period in 2019. So there's pretty typical things that I see being done on a maintenance survey. Some leaks were fixed and cracks welded up and rebuilding of machinery, things like that. But there was not any extensive rebuilding of the hull, just repairs.

Q. Okay. Lieutenant McPhillips, could you please go to Page 4, please? Now, at the top of the page, your report discusses -- mentions the pipe alleys. Do you recall the pipe alleys that were outfitted on the *Scandies Rose*?

A. Do I recall what they look like?

Q. Yes.

A. Yes.

Q. And do you recall whether the bulkheads on either end of those pipe alleys were watertight bulkheads?

A. Yeah, I'd have to look into that a little bit. I'm not sure.

Q. Okay. Go ahead and switch over -- Lieutenant McPhillips, can you switch to Exhibit 112, please, particularly Page 9? It's a series of text messages from Gary Cobban dated November 4th, 2019. 112, Lieutenant. So, while that's coming up, Mr. Jacobsen, for those pipe alleys, were those areas of the vessel that you ever entered during your survey?

A. Yes, I believe I've been into them several times.

Q. Sir, are you able to see those photos up on the screen now, sir?

A. Yes.

Q. Are you familiar with that space that's represented in those pictures, sir?
A. Well, I'm not entirely certain. I look at a lot of spaces.
Q. So, in this series of texts, Gary mentions that these are the internal sides of the waste chutes. So would that be the pipe alleys that you're referring to in your report?
A. I'm not exactly sure what this is referring to. It looks like something in the lazarette. I'd have to review my pictures. Sorry. I'm not sure where that is.
Q. So this would be the port and starboard void spaces that ran along the sides of the tanks. Is that an area you would have entered during the 2019 survey?
A. I don't think I went in there in 2019. I don't think it was accessible for entry at the time I was on the boat, but I can check my report. I don't have any notes on that specific area of the boat. I don't recall going in there during that survey because I don't go into spaces that haven't been gas-freed and certified for entry.
Q. Okay. No, that's fair enough, sir. Sir, if you were to have entered that space -- and so, for a reference purpose and using your experience as marine surveyor, does any of that draw any concern looking at the internal structure, if that's the internal -- that bottom picture is the internal forward side of the waste chute?
A. Well, I don't see anything from the picture.

Q. Would you be able zoom in, Lieutenant McPhillips, on the bottom picture? So it appears that that is covered in Splash Zone. Would that be normal a practice to cover that much steel in Splash Zone?
A. Well, I don't know what that is. I certainly can't tell from the picture. Looks like there's some kind of goo spread over that.
Q. Okay, so if you did -- if you would've entered the space -- and not assuming you did. If you were to enter a space like that on a vessel, would that be something that you would notate?
A. Certainly, yes.
Q. Okay, thank you, sir. Okay, Lieutenant McPhillips, can you please go back to Exhibit 004, please? And if you can go to Page 13? And so, Mr. Jacobsen, the middle right picture shows an open hatch in the -- there in the exhaust funnel. Is that -- do you know what that hatch would be for?
A. For entry into the exhaust column.
Q. Do you know if that would normally be designed to be closed and in place underway?
A. It would normally be closed underway, yes.
Q. And based on your experience, what would be the dangers or the hazards if that were to not be in place when a vessel was underway?
A. You might get some spray into the space, but I don't see any --

Q. Would that cause any significant concern to you, as a vessel operator, if an item like that was not in place?
A. It's a matter of housekeeping. It wouldn't cause any great concern to me, but I would put it on if I saw that it was off.
Q. Okay, thank you, sir. Mr. McPhillips, if you can go to Page 18, please? So my interest on Page 18, sir, is in the two top pictures that show both the port and starboard side of the superstructure on the deck just below the stairs leading up to the bridge deck. So your report mentions having engine room ventilation trunks being located behind the ladder to the bridge. Looking at those top two photos, can you identify where those en engine room vents are located?
A. Looking at these pictures -- okay, I'm --
Q. Lieutenant McPhillips, would you be able to zoom in on the, maybe say the upper right picture for reference, on the starboard side there? Does that provide a better reference point for you, sir?
A. Yeah, so I believe the vent is that screen behind the ladder.
Q. Okay, so in the picture here, what would appear to be more of a brownish color behind the ladder there?
A. Right.
Q. Okay, thank you, sir. Lieutenant McPhillips, can you mover over to Page 22, please? On this page, sir, the report mentions a couple of the catch and release chutes, particularly port forward of the crane and starboard aft. Were these the only bycatch

release chutes on the *Scandies Rose*?
A. I'm not seeing what you mean in those pictures, but I believe it's --
Q. It's the text, sir.
A. Oh, hang on.
Q. It just talks about bycatch release chutes port forward of the crane and starboard aft.
A. Okay.
Q. All right, so in referencing those chutes, were those the only two chutes on board?
A. Those were the only ones that I saw during my survey.
Q. Okay, can we move to Page 44, please?
A. I think one of those chutes was removed from service, if I remember correctly.
Q. In paragraph -- I believe it's Paragraph R. Yeah, Paragraph R mentions the starboard trash chute was rebuilt and the starboard forward chute was removed. Sir, do you know, if that is correct, based on what you know now, was that a -- what you observed while you were onboard?
A. Yeah, I believe so. I probably just neglected to update my text above from the previous survey.
Q. And so, sir, were you -- it does appear that, as you said, there might have been a little bit of a mistake between which one was removed and which one was rebuilt at the time. Do you recall if the forward chute by the pot table was the one that was rebuilt

and -- or if the starboard aft one was the one that was removed and blanked off?
A. Yeah, I don't recall. I thought it was the aft one that was rebuilt. All in all, I don't recall those. Been too long.
Q. Do you remember if that work was done before or after you had visited the vessel, or was it work that you had witnessed being done while you were -- during the survey?
A. I believe that was reported to me after I visited the vessel, but I'm not certain on that.
Q. Okay, I'm going to switch to Page 36, please. Sir, in the chart here on Page 36, indicates a stability letter and book dated from 1988. At the time that you conducted the survey, was that the last available information for the vessel stability?
A. That was the last that I'd found. I don't know if it was updated since then, but that's -- I didn't see any other updates on stability.
Q. So, during your visits to the vessel over those multiple days, was it ever communicated to you that a stability test had recently been done in April of 2019?
A. In April of 2019? I don't recall if there were other stability tests done. If it was done, and I knew about it during the survey, I would have included it in my report.
Q. Okay, fair enough. And I just was asking if it had been communicated to you at -- during any of your visits.
A. I don't recall if it was or not. I would have made a note

and put it down if it had, so I assume not.
Q. Okay. Sir, just -- you had mentioned a couple other affiliations as we started. And, Mr. McPhillips, you can pull down the exhibits at your convenience, please. So you had mentioned a couple other affiliations, particularly the Inter-Cooperative Exchange co-op and the Bering Sea Arbitration Organization. Can you talk to us a little about what the Inter-Cooperative Exchange co-op and your role?
A. Sure. So I'm the executive director of Inter-Cooperative Exchange. It's the largest cooperative of crab fishermen in the Bering Sea. And I do price negotiations for the fishermen in my co-op and keep track of crab markets and work on other issues that come along affecting the crab fishery.
Q. And how long has that co-op been in place, sir?
A. The Inter-Cooperative Exchange in its present form was, I believe, 2009, but it existed in a previous iteration since 2005. But it was restructured in 2009, I believe.
Q. And so we heard yesterday a little bit, and to paraphrase a little about the Inter-Cooperative Exchange, ultimately, is it safe to say that, you know, the ultimate goal and the ultimate function is to really to provide a mechanism to share quotas between vessels?
A. That's one function of a cooperative.
Q. And what would you say another function is, sir?
A. Well, it depends on the nature of the co-op. It's a fairly

complex fisheries management system. So there are co-ops that are formed under the Fishermen's Collective Marketing Act, and Inter-Cooperative Exchange is one such co-op organized under the Fishermen's Collective Marketing Act. And under that organization, we have an exemption from anti-trust, which allows us, under certain conditions, to share pricing information between the members of the cooperative and to negotiate and arbitrate on behalf of the cooperative.

Q. Okay, thank you for that information, sir. I do have another question. Are you aware of or have you ever been involved with the National Fishing Vessel Advisory Council?

A. No.

Q. Okay.

A. I'm aware of it. Was that part of your question?

Q. Yes.

A. You're talking about the new council that is -- was formed in December of last year? I don't think it's actually been fully formed yet. I think they're still deciding on how that's going to look. So I requested -- I sent in an application to become a member of that committee, but I haven't heard anything back.

Q. Okay. And then can you talk to us about the Bering Sea Arbiter's [sic] Organization?

A. The Bering Sea Arbitration Organization is an organization that is required under the fisheries management program that we're under called the crab rationalization, and so every harvester and

fishing Type A shares have to belong to an arbitration organization, and processors processing Type A shares are required to join a different arbitration organizations for processors. The function of the arbitration organization is to hire arbitrators and to hire a third-party market analyst and that they're a non-binding price formula arbitrator and then any number of contract arbitrators. So the function of the arbitration organization is to hire the vendors that are required to execute the program.

Q. Okay. Thank you, sir.

CAPT CALLAGHAN: Sir, I'm going to go ahead and I'm going to pass some time to my partners at the National Transportation Safety Board.

So pass it to Mr. Bart Barnum from NTSB for some further questioning. Thank you.

MR. BARNUM: Thank you, Captain.

And thank you, Captain Jacobsen.

I'm getting a little bit of echo. Okay, that should have cleared it up.

Yeah, thank you, sir, for taking the time today and speaking with us, and also thank you for producing that stability -- excuse me, the survey. I know I have never been on the vessel, so I consulted that quite a bit to try to learn some more about the *Scandies Rose*, so thank you.

THE WITNESS: You're welcome.

BY MR. BARNUM:

Q. One follow-up on that survey from Captain Callaghan. Who was supplying you with the maintenance items that are listed year to year on that valuation survey?

A. For this particular survey, I believe it was given to me by Gelia, but I don't think she was the originator of the document. I think it was -- I think Jamie, the port engineer, was involved and probably Dan (indiscernible).

Q. Okay. So is it safe to say that you were being provided with a list and you're including that in the survey, or are they items that you have seen while you're onboard?

A. I'm not able to see all of the things that are in the list that they provide, but I can -- I generally try to look at the things that I am provided with. I think this list was provided after my survey report was -- my work on the boat was completed, and so it was kind of done after the fact. So, normally, I see what I can on the boat, and if there's anything that I missed, I fill it in later with comments either during the -- before, during or after the survey report is generated.

Q. Okay. You mentioned earlier that the *Scandies Rose* was in very good condition overall. How would you rate the hull, the -- underneath the water line?

A. I think it was one of the best hulls that Bender ever built. I'm aware that the original owners of the *Scandies Rose* were very vigilant in the shipyard and were there all the time, watching and

making sure everything was done right. So I have seen the hull a lot. I've been very impressed over the years by the workmanship involved, and a lot of the other work that comes out of some of the shipyards in the south part of the United States is done fairly cheaply with an eye for a limited service life of the vessel. The *Scandies Rose* was not part of that mold. It was built to last a long time, and the quality of the workmanship, I found, was very good.

Q. Okay. I know included in your -- the 2019 condition valuation survey, there was several references to hull gauging. You talked about that earlier with Captain Callaghan. And then you mentioned that you stopped doing it. Why was that?

A. I was on my back in a puddle of water, audio gauging a hull that was three inches from my nose, and I just decided I'm just too old for this kind of stuff. So my audio gauge started having problems, and I just decided not to get it repaired and not to buy a new one. I helped another surveyor get started in the audio gauging part of it.

Q. Okay. How -- what other methods would you have in your toolbox, if you would, to judge the thickness of the material of the hull, other than an audio gauge?

A. I don't know of any other than visual. I don't have any other methods to evaluate the thickness. I can just see the condition on the outside and on the inside where it's visible.

Q. Okay. At the beginning of our discussion today, you said

that you like to see the vessel once the bottom is stripped and then once it's painted as well. When the bottom of a vessel's stripped, could you elaborate on that? What method is used to strip the bottom of the hull?

A. Well, typically it's just done with a pressure washer. If there's some sandblasting done, I like to see it after the paint is off and before they start to paint it, because either after sandblasting or after pressure washing is the easiest time to find cracks. It's really hard to find a crack after the hull has been painted.

Q. Is that typically what you've seen are cracks, or is it corrosion? What do you more frequently see?

A. I see all kinds of things, but I don't know if I see one more. I see a lot of cracks. Corrosion is certainly more common than cracks, but I pride myself on finding cracks. I'm always happy if I find a crack because there's one I didn't miss. It's easy to miss cracks.

Q. Sure. In particular with the *Scandies Rose*, the years prior to the accident, when you would inspect the vessel, the hull, the bottom, would they take it take it down to bare metal each dry dock, or was it just a pressure washing? How did they treat the hull?

A. Well, I indicated in my report if there were sandblasting involved, so I see that it was sandblasted in 2003 and probably some subsequent -- there's periods as well that -- you don't want

to sandblast your hull too much, otherwise you thin the metal out, so -- every time you sandblast, you lose a little bit of thickness in your steel, so I wouldn't advise overly sandblasting. And there's some new techniques of high pressure water that can remove paint, and some shipyards do that. I don't recall if the *Scandies Rose* ever did that water blast or not, but typically it's just a pressure wash and recoating. But I would have recorded it in my additions and repairs.

Q. Right. Yeah, I'm just trying to get to the bottom here. I mean, in your professional opinion, I mean, if you're not audio gauging a hull, and there is, over the years, periods of sandblasting, of stripping the bottom, is there any other indications to judge the thickness of that metal?

A. Just visual. Or cut a hole in it, but that's kind of extreme.

Q. Yeah. Okay. All right, I had a couple of questions on the survey itself, so could you please bring up that Exhibit, Exhibit 4, Lieutenant? Page 3. I'd asked Mr. Mattsen the same question yesterday. He was not intimate of knowledge around these modifications in 1988 and 1995. He wasn't certain. Do you have any background information on those two modifications listed on Page 3?

A. On Page 3, let's see. So which -- oh, I see. Under -- on the list there, modification 1988 and 1955.

Q. Yes, sir.

A. Yeah, no, I don't know. I wasn't -- didn't start surveying the *Scandies Rose* until much later. I know they had a new refrigeration system put in at some time because they had a lot of problems with the older refrigeration system.
Q. Okay. So if you --- these modifications, these were told to you by whom? I mean, if you didn't start until -- inspecting the vessel till after?
A. Yeah, I don't recall what the source of that was. It could have come out of the stability book.
Q. Okay. We've been talking a lot about the waste chutes and the voids. You mentioned that you've been in them several times throughout the years. Did you notice any bilge alarms in those voids?
A. Oh, boy. I don't recall. Let me check. I don't see any in my text right off, so I would say that I didn't see them, if they were there.
Q. Okay. Lieutenant McPhillips, bring that exhibit back up, please, Exhibit 4, Page 31. Captain Jacobsen, a couple questions on the tank volumes onboard the vessel. Can you see the exhibit?
A. Yes.
Q. So here we have listed in the center of the page the fuel tanks and their capacities. Where'd you obtain this information to be included here?
A. I get that information off of the stability book -- out of the stability book. So on, let's see, looks like Page 35 -- no, I

didn't put it in this report, but normally I make a notation that the dimensions and capacities are taken from other documents. I don't do any measurements of tanks or calculations of tanks. That's done by the naval architect, and so that's where I got that information.

Q. Okay. And that was from the 1988 stability report?

A. I believe so.

Q. Okay. Lieutenant McPhillips, could you please bring up that report? I'm trying to find the exhibit number. Right off the bat if anybody -- 035, thank you. And I know you've probably seen a lot of these, but does this stability report look familiar to you?

A. Well, yeah, like you said, I see a lot of them, so it does look like one of them -- one of the many that I see.

Q. Okay. All right.

MR. BARNUM: Okay, that's all the questions I have for you right now, Captain Jacobsen. Thank you.

I'll turn it back to Captain Callaghan.

CAPT CALLAGHAN: Thank you, Mr. Barnum.

At this time, I'd like to turn to Mr. Stacey for any questions from parties in interest.

MR. STACEY: Good morning, Captain and Captain Jacobsen. Good to see you, even if it is remotely. We have no questions for you, Mr. Jacobsen.

THE WITNESS: Well, thank you.

MR. STACEY: Thank you.

CAPT CALLAGHAN: Thank you, Mr. Stacey.

And now to Mr. Barcott for questions, sir.

MR. BARCOTT: Good afternoon, Captain Jacobsen. Mike Barcott for *Scandies Rose*. No, I don't have any questions. Thank you very much.

CAPT CALLAGHAN: Thank you, sir. I do have a couple follow-on questions from Coast Guard members. I'm going to pass it to Commander Karen Denny for some questions.

CDR DENNY: Thank you, Captain.

BY CDR DENNY:

Q. Captain Jacobsen, thank you. So you've mentioned a couple times that you've done quite a lot of surveys and you have a long history with that profession. So about how many vessels do you survey a year, give or take?

A. Well, let me see. I probably do -- I don't know, four or five --

Q. Over 100?

A. Four or five a month, maybe, just guessing.

Q. Okay, that's fair. And do you ever do sea trials or get underway with any of those vessels?

A. I have. It's not my regular practice.

Q. What would be the purpose of doing that?

A. Just because that -- they happen to be doing sea trials when I was on the boat doing my survey. I did a survey of one boat last year where I was on the boat. The day I had to survey the

vessel was the day of their sea trial, so I rode along and did a sea trial with them.

Q. And what kind of benefit -- as a surveyor, what kind of benefit would you get from being able to get underway and do a sea trial? How does that help you in understanding the vessel for the survey purposes?

A. It doesn't help me a lot. If it's a sunny day, I just like the -- I like the trip. If it's raining and miserable, then I don't.

Q. So it doesn't serve a purpose in terms of like verifying that the equipment is running, the engines are working in proper order in terms of the condition of the vessel?

A. Yeah, it could. So I don't start engines or anything like that, and, of course, with my surveying, I'm not a diesel mechanic.

Q. Sure.

A. So I don't feel the need to sea trials on boats I survey.

Q. Okay. And I'm just trying to make sure that I understand, you know, when we go into condition of the vessel, that you're serving that condition, how deeply do you go into it? Like, yes, there's an engine sitting there, but does it run? Is that something that you verify? But I'm hearing you say the answer is no.

A. So the terminology that's typically used, at least in my surveys, is that it's in serviceable condition. That's different

from running condition. It means that it can be repaired and serviced to be in running condition with not a great deal of effort, so -- I don't verify each piece of equipment on the boat to make sure that they work. I mean, that's -- I don't see that as part of my job unless I'm specially requested to do that.

Q. Okay. So you've noted for us that -- you ran through the years that you surveyed the *Scandies Rose*. Did you ever conduct surveys on the vessel before it became the *Scandies Rose*, with its prior ownership?

A. When it was the *Enterprise*? No.

Q. Um-hum.

A. I only conducted surveys when it was the *Scandies Rose*.

Q. Okay. So, to the best of your recollection, were you ever made aware of any -- were you ever made aware of the starboard forward chute area having any kind of metal wastage? To the best of your recollection, did anybody ever make you aware of that?

A. No, not that I recall.

Q. How about any kind of failing welds anywhere on the boat?

A. I don't recall any failing welds.

Q. So in no time in the history of you surveying did you get any feedback from either the owners, the captains, any of the crew that was there at the time to indicate to you like, hey, can you take a closer look at something here?

A. I can't answer definitively that that never happened. I just don't recall it -- today that it ever happened.

Q. Okay. I have a question with regards to a comment that you made about the extent of your surveys. If a fishing vessel is used for another purpose other than fishing -- for example, like if it was being used as a chase boat or as a platform for filming for television -- do you do -- have you ever done that, surveyed it for -- surveyed a fishing vessel for the purposes other than fishing?

A. Well, I'm not sure what that means. If it were to change service to be like an inspected passenger vessel, I would recommend a new survey.

Q. Can I offer clarification?

A. Sure.

Q. So, for example, if the vessel -- is there a difference in terms of if a fishing vessel is being used as a chaser boat, have you had to do surveys where -- for insurance purposes, for example, where you have to do something different in your surveys and you have to look at something different? And then my follow-on question is, what would be that gap? What would be that difference?

A. No, I never had any incident like that.

Q. Okay, so you've never had to do a survey for a vessel that was being used for a different purpose than fishing, like if it was a fishing vessel, you've never had that circumstance?

A. Well, I wouldn't say never. I don't recall that in the context of the *Scandies Rose*. If you -- ever. So let's see --

Q. Well, I was just asking the question.
A. I do a lot of things. I've surveyed boats that were used as chase boats. I wasn't asked to do anything different other than what I would normally do.
Q. Okay. And that was actually what I was asking just to try and find out about the difference. Not so much specific to the *Scandies Rose* on that one.
A. Yeah.
Q. And just to make sure that I understood that answer, you did not have to survey those vessels any differently? There wasn't additional areas that you had to look at?
A. No, I can't even imagine what that would be.
Q. Okay.
A. But if -- I'd want to make sure that if I was doing a survey at the time -- and I don't recall anybody ever asking me to survey it specifically as a chase boat, or in addition to fishing also as a chase boat. I'm usually not even informed what their contracts are, whether it's going to be used as a chase, so -- and so using the term chase boat in the context of the TV show and the boats that follow around a boat that's being filmed for TV; is that what you mean by chase boat?
Q. It is. It is.
A. All right.
Q. And is this --
A. I've surveyed vessels that have been used as chase boats, but

I don't recall ever being called up and asked to do a survey specifically for its chase boat status.

Q. Okay. Have you ever been in a situation or employed to do any kind of survey, not for the *Scandies Rose*, but any kind of survey for operations that require more in-depth inspection, for example -- than what you would have done normally on a fishing vessel condition and valuation survey?

A. Yes.

Q. Can you elaborate on that, please?

A. Well, I've been hired to be a attending surveyor in various shipyard projects where I was asked to be in the shipyard witnessing welds, and so I've done that. That requires a lot more in time and things that I -- the detail of the inspection. So I've been asked to do that several times. They're that kind of detail that go into certain damage surveys and things like that that I would perform, and also in the context of expert witness work, sometimes I'm asked to look at particular things on the boat and give a close analysis on like fire damage and things like that. I've been asked to try to ascertain the cause of the fire, and that required very particular analysis and forensic analysis of certain items of equipment. So I've done a lot of things.

Q. So one of the things that you mentioned that, you know, there are certain types of vessels that might require you to have a lot more oversight in terms of like looking at the welding work and overseeing those things. What type of vessels usually require

that level of oversight?
A. Usually the larger vessels, like for me, factory trawler, vessels like that, processing ships. I'm just a regular surveyor. There's a market for surveyors, and you meet the market, then -- I can't stand 50 hours on a boat. That's just -- that's -- unless I'm specially requested to do that. But the person that hires me expects a certain rate and he gets the job according to that rate. I can't be on the boat all the time unless I'm being paid to do it. It just doesn't work out for me economically, so I have my rates that are, I think, in line with most other surveyors, and I put the time in that's paid for by those rates.
Q. Yes, sir. And so, for the *Scandies Rose*, you were never contracted or employed to do more extensive oversight? And please correct me if that's an incorrect statement for -- in the context of the dry docks or docksides. Is that correct?
A. Really uncomfortable with words like never.
Q. Okay. I apologize for that. Let me take that back.
A. (Indiscernible). If I don't recall something, if they -- something, and they pull out, well, what about this in 1987? Well, I -- you know, yeah, maybe, but I don't recall anything.
Q. That's fair.
A. I -- I'm -- they might have asked me to take a look someplace or do something, but that's -- usually I just go onto the boat and do my thing and look all around and make a general report.
Q. Okay. So let's take it back to 2019. Were you ever asked to

do any kind of additional oversight or review of that starboard chute, starboard forward chute or the aft chute?
A. No, I don't recall anybody asking me to look at the chutes.
Q. Okay. I'd like to go to Page 39 of Exhibit 004. And, sir, that is -- it's specifically under the section of work that you detailed that was done in 2011. So Page 39, and if you could zoom in on the section for 2011, so keep going down, please. It's Subpart E, and it talks about the overboard chutes being rebuilt with the new insert plates and overlays. Do you see that, sir?
A. Yes, I do.
Q. Fantastic. Do you happen to recall if you were asked to oversee or provide extra oversight for that work where those chutes were replaced, rebuilt and insert plates were renewed?
A. No, I don't recall one way or another, but it would be really unusual for them to single out one place, like more than the diamond plate installed on the fishing deck or the throttle controls above it. There's --
Q. Okay.
A. I'm just assuming it's something that they did in the course of their repair work. I recorded it.
Q. Okay. So then let me ask you a slightly different question. Is it normal to have to replace metal end chutes often based on your experience with surveying quite a lot of commercial fishing vessels? Is that normal to have to replace that often? Is that yearly? What is the rate based on your experience that you've

seen those kinds of areas have to get replaced?
A. Oh, boy. Very rarely. It depends, of course, on what the thickness of the metal was, what the type of metal was. If it's stainless steel that's half-an-inch thick, it's going to last probably longer than the boat, but if it's thinner steel and not stainless, then it won't last as long. But I don't really have a time period of about when people have to replace their chutes. It's not one of the things that is critical equipment on the boat.
Q. Sure. I guess I'm trying to get at the rate of wastage and why that might happen based on your experience in the industry and having had extensive experience in the fishing industry, and then, you know, your experience as a surveyor, if that was common, if that's something that you saw as like a recurring thing, especially on a vessel that you've had a long history with.
CDR DENNY: I think that is actually my last question for you, sir. Thank you very much for your time.
THE WITNESS: All right, thank you.
CAPT CALLAGHAN: Sir, I know we've got you (indiscernible), but if you're okay, I'd like to pass it to Lieutenant Commander Mike Comerford just for one follow-on question, sir, and then I think we'll be able to wrap it up for you.
THE WITNESS: Okay.
BY LCDR COMERFORD:
Q. All right, good afternoon. Sir, I'd like to first bring up Exhibit 5. I'm going to share it on my screen here. Earlier, you

were discussing the tankages. Does this diagram or capacity plan look familiar to you?
A. I might have seen it before, but it's not something that I recall vividly in my mind. I see a lot of these, so --
Q. Okay. Captain --
(Simultaneous speaking.)
A. (Indiscernible) sure, why not, but --
Q. Okay, Captain. So I'm pulling up Exhibit 4 on the left of your tank plans, and I'm just going through it and reviewing how it compares. So, in the fuel tanks for what your table is, the two that seem to be drawing my attention is the Tanks Number 3, port and starboard. They're -- on the diagram, they're scratched out. One time, they were 73/90 on the port and 52/30 on the starboard, and then they're flipped. In your report, you have 73/90, so Exhibit 4, Page 31, we have your report listing the port as 73/90 and 52/30 on the starboard. And my question to you is, do you recall how you resolved which tank was which in your final report with that difference?
A. Yeah. Well, so if you look at stability reports of the same boat, you'll find a lot of different capacities. I try to use the latest documents that I have. Like I said earlier, I don't measure tanks myself. I use other documents. And so I can't say whether I pulled this from this capacity plan or somewhere else, but whatever it is, the next naval architect will come around and put something different down for capacities because it's -- they,

I guess, have their unique ways of measuring things.

Or I'm not sure how that works, but I've written a lot of these survey reports, and I've found a lot of variations in capacities, depending on which architect does it or even an architect if it's a second or third time but come out with different numbers. So might have been switching tanks or something. I just copy off the reports that I get and the papers that I find on the boat. So that's, I think, a question better suited for a naval architect.

Q. Thank you, Mr. Jacobsen.

LCDR COMERFORD: Captain, that's all the questions I have.

CAPT CALLAGHAN: Thank you.

I did have one more question from Mr. Barnum with the NTSB.

MR. BARNUM: Thank you, Captain.

Captain Jacobsen, I know we're up against some -- a hard time here, but I did have one follow-up for you along the same lines as Commander Comerford on the tank volumes.

Lieutenant McPhillips, can you bring up Exhibit 36, Page 17, please?

BY MR. BARNUM:

Q. Captain Jacobsen, can you see this?

A. Yes, I can.

Q. Okay. This comes out of the *Scandies Rose* 2019 Stability Report, and we've already established that you indicated that you hadn't seen this document, but are you familiar with this type of

sounding table?
A. Yes.
Q. Okay. And, for the benefit of the public, could you briefly describe what kind of information was obtained from referencing this stability table -- excuse me, sounding table?
A. Yeah. So the sounding table is, if you want to find out how much fuel is in your tank, then you can look at a sight glass or put a pole down into the tank and measure how many inches of fuel are in the tank. So you look at this table, and if you have, for example, one foot of fuel, it would hold -- that would constitute 62 gallons in the tank.
Q. Okay. So, in this particular -- this is the forward port wing tank, diesel fuel tank for the *Scandies Rose*. The max sounding, can you see what the max sounding and the volume of that tank is like?
A. 28/35.
Q. Okay, 28/35 gallons. Can we bring up, Lieutenant McPhillips, Exhibit 004, condition and valuation survey, please? Page 31. So, Captain Jacobsen, could you read here for the record what you have listed as the fuel tank on one port as for capacity?
A. Sure. Capacity 89/30.
Q. And, in the stability instructions, it indicated that same tank was 28/35. Correct?
A. Yes. Assuming that's the same tank that they're talking about.

Q. Could you elaborate on that a little? I mean, it was clearly labeled the number one fuel tank port on both documents. Is there any other explanation that you can give for the, I would say, fairly large discrepancy in fuel volume?

A. Not that I can give. I think you'd have to refer to previous stability reports and see what they have there. If there was a modification that divided tanks or something like that, that could account for it. Renumbering of tanks, conversion the tank for another purpose -- could be a lot of reasons why, but I don't have those reasons because I don't do stability reports.

Q. Okay. Thank you for that. Appreciate it.

MR. BARNUM: Thank you, Captain. I'm all done.

CAPT CALLAGHAN: Mr. Jacobsen, I want to -- on behalf of the Board, I want to thank you for your time today, for your testimony. Really appreciate what you've been able to provide for us here and your flexibility to work with us in this virtual environment and in this timeframe.

Sir, at this time, you are now released as a witness at this formal hearing. Thank you for your testimony and cooperation. If I later determine if this Board needs additional information from you, I'll contact you through our legal advisor. If you have any questions about this investigation, you may contact the investigation recorder, Lieutenant Ian McPhillips. Thank you very much, sir.

THE WITNESS: And thank you.

(Witness excused.)

CAPT CALLAGHAN: The time is now 1410. This hearing will take a short recess, and we will resume at 1430.

(Off the record at 2:09 p.m.)

(On the record at 2:30 p.m.)

CAPT CALLAGHAN: Okay, the time is now 1430. This hearing is now back in session, and we will now hear from Mr. Jordan Young.

Mr. Young, Lieutenant McPhillips will now administer your oath and ask you some preliminary questions.

LT McPHILLIPS: Please stand and raise your right hand.

(Whereupon,

JORDAN YOUNG

was called as a witness and, after being first duly sworn, was examined and testified as follows:)

LT McPHILLIPS: You may be seated. Please state your name and spell the last.

THE WITNESS: Jordan Young, Y-o-u-n-g.

LT McPHILLIPS: Please identify counsel or representative if present.

THE WITNESS: None.

LT McPHILLIPS: Please tell us, what is your current employment and position?

THE WITNESS: I work for Highmark Marine Fabrication in Kodiak, Alaska, as a welder and fitter.

LT McPHILLIPS: What are your general responsibilities in

that job?

THE WITNESS: Handling welding and fitting projects on steel, a variety of metal boats for -- or not just boats but anything metal related.

LT McPHILLIPS: Can you briefly tell us your relevant work history?

THE WITNESS: I have worked for Highmark Marine Fabrication since the beginning of 2018, the first -- actually, the first month and as a welder shortly after getting out of welding school. And I've remained an employee here ever since then.

LT McPHILLIPS: Okay. What is your education related to your position?

THE WITNESS: I took a combination welding course, the first portion being structural welding and then the second being pipe welding.

LT McPHILLIPS: Do you hold any professional licenses or certificates related to your position? Please explain if you do.

THE WITNESS: I have, I think, four welding certifications -- five. Two structural, one being a D-11, which is unlimited thickness steel, and then I have a bridge certification, which is similar in nature, just no power tools, and then I have two pipe certifications, both of them being API -- to the code of API-1104, just on different sizes of pipes, and then an aluminum certification as well.

LT McPHILLIPS: Thank you. Captain Callaghan will now have a

follow-up question for you.

CAPT CALLAGHAN: Thank you, Mr. Young. On behalf of the Board, we thank you for your time today. And at this time, I'm going to turn it over to Commander Karen Denny, who's going to move forward with the Coast Guard questions.

EXAMINATION OF JORDAN YOUNG

BY CDR DENNY:

Q. Good afternoon, sir. Thanks again for being here virtually with us. If, at any point, we have -- if you have any questions that you don't understand or you can't hear because of technical difficulties, please don't hesitate to say so, and we'll either rephrase or repeat the question. And we're going to talk for a while, but if you need a break at any point, please let us know.

Using this platform, we're going to be able to share exhibits and show you stuff on screen, so if at any point we pull something up to look at and you want us to zoom in on something for a particular point, please let the recorder, Lieutenant McPhillips, know that, and he'll go ahead and focus on it for you, and you can let us know when we've reached the spot you want to be at.

Any questions so far?

A. No, ma'am.

Q. Okay, thank you. So you gave us some information about your experience as a welder, and if I understand you correctly, you went right from welding school to work at Highmark Marine up in Kodiak. Is that correct?

A. Yes.
Q. Okay. Can you talk about how you became a welder and what kind of training it really took? You told us the certifications that you have, but what did it take to become a welder? And I'd like you to focus on the amount of time it took, what kind of schools, and then the on-the-job training requirements.
A. Okay. I'll start out with schools, like I suppose I came in with not having a lot of experience at all. And they start you out just getting -- with book learning, mostly, just having an understanding of what it is, what's happening in the process of welding. And then, after a short period of that, you move right into the shop and get hands-on experience with all the different tools related to it, and then spent about four and a half months specifically training for the (audio skip) which requires like eight hours of -- eight hours a day of practicing on weld coupons, specifically stick welding, which is what my certifications are.

And to reach (audio skip) to create a weld that's pure enough to shoot with an x-ray and have them measure the -- any defects or slag inclusions or anything and hold it to a code and then qualify you to that. That was the first portion, was the structural portion. And I got lot of experience with different types of metals and whatnot, but that was the focus, was to pass that structural certification.

And then the second part was the pipe welding course, which was an equal amount of time, about four and a half, five months

practicing on a variety of different materials and sizes of pipe and whatnot, different weld procedures, but mainly focusing on getting towards the API-1104 -- or 1109. I'm pretty sure it's an 1104, but I can't recall. Or it's, sorry, section 9 -- 1104. Anyways, and then also passing an x-ray for that as well. So just a lot of hands-on, making that weld over and over for those eight hours a day of those five months.

Q. Okay. And then so that schooling involved that on-the-job training. And then is there some kind of apprenticeship that, once you get that certification, you have to have a certain amount of time or a number of hours before you can move up? How does that work?

A. Right. So no, I didn't go to an apprenticeship. I just went right to work down here at Highmark. And I forgot to mention that my pipe certs are also in compliance with ABS. It doesn't make a difference as far as procedure, just that it is a qualified procedure, and they recognize it.

Anyways, so when I took that test going into what -- I think I just spent the first year, I believe, only as a helper, just grinding and fitting, not doing any actual welding myself so much, just learning about the type of equipment that we work on and whatnot. And then not until that second year did I actually begin to get to work on and start welding on anything.

Q. So, to make sure that I understood what you're saying, so you started in early 2018, I think you said February?

A. January.
Q. January. Okay, so you started in January of '18, and then you worked for that first year in a position where you weren't doing the welding itself, but you were in the yard the whole time, helping, grinding, prepping. And then in -- so then a year later in '19 is when you started doing welding work. Correct?
A. Right. I maybe did a couple of small projects, but nothing critical.
Q. What defines critical?
A. As far as like on a piece of like operating machinery or something that could become dangerous if it failed.
Q. Okay. Okay. So, Lieutenant McPhillips, please pull up Exhibit -- Coast Guard Exhibit 112, and be ready to start on Page 1, please, and I'll ask you to scroll through 2, 3, and 6 subsequently. Mr. Young, these are photos of interior spaces on board the *Scandies Rose* from 2019. Now, I want to -- I want you to think back to that time, so it was around November the timeframe of 2019. So do you recall seeing this?
A. I do, yes.
Q. You do. Can you walk me through that? Can you tell me, to the best of your recollection -- and if you need to take a minute to just kind of think through it, I really would like for you to tell us as many details as you remember from when you got tasked with that job to -- and walk us through what you saw and with as many details as possible.

A. Do you want me to describe the whole thing or just what's in the evidence?
Q. The whole thing would be good, and then we'll scroll down a little later so that -- actually, Mr. McPhillips, could you please scroll down to Page 2 just to refresh Mr. Young's memory? So there's Page 2, just to refresh your memory. And Page 3, please? Okay, and then down one more, please. Okay, so we'll leave it up right here. And so if you could just walk me through, to the best of your recollection, you getting assigned that job and coming onboard. And if you need to ask Lieutenant McPhillips to move those pictures around so that you can better explain that, please do so.
A. Okay. Well, this is that starboard waste chute. That first image is probably the first thing you see after you get down -- there's a hatch further down the void there. You can come down through there and then see the bottom -- or the inside -- this is looking at the underside of that chute from inside that void there, all that green -- I'm not sure, I guess it's epoxy or some Splash Zone that's -- they had put that on there to try and stop the leaks that were coming through.
I remember they'd -- I'd been informed that the -- they had had some issues with the material wastage, and they went to a shipyard to have it repaired and that the repairs were failing. What seemed evident was that they didn't try to -- they did a doubler -- what's called a doubler, so they didn't replace the

wasted metal. They just put a patch over the top of it. And in doing so, they didn't patch all the way up the inside of that wall there, only partially. And from what I could tell between either porous welds -- but what it looked like to me, when I cut all of this apart, was that the -- in patching on the wasted metal, they were trying to tie into it, and some of their undercut from when they were welding, they were melting the base metal and adding weld metal to it.

Basically, they had undercut, which means that you melt the base metal, but you don't refill that crater that you created, and there would -- that had occurred on material that already had been wasted, so, in turn, along all their welds, there were a bunch of pits that were leaking through. And I believe that's where the leaks were coming from. And my job (audio skip) out all of the compromised material and prep it down to good material and then install all new material in the same design.

And the only change to that design being that -- do you mind maybe going back to the second image? Might be able to explain that. Yeah, right there. Thank you. Do you mind zooming in towards the top there a little bit, if possible? Yeah. So basically where it meets -- that's perfect, thank you -- where it meets the ceiling in there, I think it might be partially covered by a frame in that image, but where it meets the deck, that's where they had stopped with the initial chute.

But when we cut it out, we just ran that plate higher to get

rid of that seam right there, because it went up another 15 inches or so to the actual deck below there, being the false deck, which is what you're seeing there as the ceiling. And then 15 inches above is the actual deck that you walk on. So, basically, we just tried to improve it by reducing or eliminating the seam there. And that was the goal.

Q. Okay, thank you. So, Mr. Young, if you recall, I want you -- to the best of your recollection, could you see any daylight or could you see like a full failure at any point in either the welds or any area of the chute that would have possibly allowed water in?

A. After I performed my repair?

Q. Before you performed any repair or cutting.

A. Right, no. The only -- I couldn't -- I don't recall ever seeing any daylight. The only holes were like where you can see the rust line of water draining in inside was the only evidence of that.

Q. Did you at any point see any active water coming -- seeping in, coming through?

A. No. Everything was above the water line at that time.

Q. Okay. All right. Lieutenant McPhillips, we can take that down for now. And so, Mr. Young, from -- to the best of your recollection, what was the condition of the interior spaces around that area? How did the metal of the hull look to you?

A. Around that area, everything looked good as far as -- I mean,

with more experience now, seeing other boats and whatnot, everything appeared to be in good condition. I didn't spend a whole lot of time looking around. I was pretty focused on what I was working on there, but nothing alarming that I noticed.
Q. Okay, so that area -- so, in your line of work, there's areas on a vessel that are considered confined spaces. Was that area on the *Scandies Rose* considered a confined space?
A. Yes, I believe so, technically. I'm trying to remember what the technical definition of one is, but there were multiple means of access to it. But it was a tight area. I don't know that it technically fits a confined space, but it was definitely small.
Q. Do you recall if it required a marine chemist gas-free certificate?
A. No, it did not.
Q. Okay. And before I move off the topic, you mentioned a few minutes ago that you were told that they had had previous issues before getting into Kodiak, and that's why you were called to do the repair work. Do you recall who told you that?
A. My boss, Cooper Curtis. He was the one that lined me out on everything there. And I can't remember who else was there on the boat with me who, I guess, was looking after the boat or who represented the customer. I want to say it was David Cobban.
Q. Okay. And did he happen to comment on the condition of that area at all, in passing?
A. Just -- no, just confirmed what Cooper was explaining to me.

Q. Okay. Okay, just give me one second. Do you happen to recall if -- you know, you mentioned the Splash Zone. It was kind of that yellowish-green. Do you recall, from having either talked to anyone, if the crew said that they put the Splash Zone up or if they indicated that it was somebody else?
A. I believe -- I can't -- I don't know if they said they themselves did it, but I think it was inferred that the crew of the boat did it.
Q. Recently?
A. In response to -- or as a way of taking care of the issue. I don't know how recently -- how long they'd been dealing with it, but it didn't sound for -- I think maybe just in transit would be my guess.
Q. Okay. I understand. So, from your professional opinion, from having had several years of doing this, that was definitely some kind of compound, maybe not brand name Splash Zone, but it was some kind of compound; you were fairly confident in that? Is that a fair statement?
A. Yes.
Q. Can you talk us through what you did to repair that area? What did you do to make it seaworthy?
A. Just started by cutting along all the old weld seams to get rid of the compromised material, which was obviously rusted, removing all that. And then after everything is removed that you don't want, I grind it clean just to ensure that I can -- I'm

looking at good raw steel there, grind the edge clean about an inch back along all the surfaces I'm going to be tying to and make sure that it's -- there's nothing that will cause a defect in the weld that I put back into it.

And then I would pull my measurements or make templates, as I did in this case, out of cardboard, to make sure that the pieces -- figure out what size the pieces are going to be so that I can lay them down on material and trace them out and cut them. Took all those measurements and made my templates, cut all my pieces, brought them down to the boat and fit and tacked them, making sure that I wanted -- I didn't have to create any gaps in this instance. Sometimes you have to do an open root, but all of these were either an overlap, like creating a fillet weld, or maybe in a couple instances, there was a corner to corner where you'd just have the fillet weld there.

But, yeah, get everything tacked into place and fit just how you want it, and then I welded it out and with -- did -- you do a 60/10 root and then prime the top of the bead off. It's a 60/10 hot pass and then a 70/18 fill-in cap, low hydrogen rod. And then, after everything has been welded, you take in -- I took in -- (indiscernible) all my slag off, looked at everything multiple times to make sure that I got everything welded, and then I did a dye pen test, which is where you take and you spray penetrant all along the outside of all your seams, all your welds with a red dye, give it a good -- I think it's 10, 10 or 15

minutes -- it says on the can; you just follow the instructions -- to seep into any cracks or any holes or porosity, anything that there might -- any defects that could be in their welds. And then you go on the inside and spray a white developer, and that pulls the dye through and would show you many areas that were -- that weren't passing or had a defect that needed to be repaired. Given the nature of how everything was fit and whatnot, there is very low chance of that happening, and it didn't have any leaks. And then I cleaned up and got my tools out of there.

Q. Okay, so --

A. I'm sorry, I lost audio.

Q. No, it wasn't you. Operator error on my end; it was me.

A. Oh.

Q. So, Lieutenant McPhillips, if I could have you pull up Exhibit 007, please. It's a consolidation of Highmark Marine work. And if you could go to Page 3, please. Mr. Young, I'm going to show you the picture that we have that's labeled Chute Prior to Repair. Could you take a look at that, familiarize yourself with it, and then could you confirm to the best of your recollection if that is what you saw --

Q. That is --

A. -- when you got onboard?

A. Yes, ma'am. Sorry, didn't mean to interrupt you. I'm the one that took that picture, yes.

Q. Okay, so you took that picture. Is that typical for you to

do before jobs?
A. Yes. Cooper wasn't able to be present throughout the entire project. He left it to me. So taking pictures of my work is a way of communicating my progress and what I'm finding and whatnot. If there's -- I have any issues or questions, I can show him what I'm talking about and then --
Q. Okay. Lieutenant McPhillips, if you could please scroll down to Page 4? Now, Mr. Young, it's coming up, but -- so it's labeled Chute After Repair. Is that, to the best of your recollection, what the chute looked like after you conducted the entire repair that you just described to us?
A. This is part of the way through it. I took this picture because, after you put that -- the second deck on, a lot of this would be covered, and I wanted to capture this in the image. There's two pieces missing. One would be the back plate that basically boxes in that chute there. You can see two plates coming up off of the subdeck, the -- the first deck. And basically there would be a piece of plate that comes across there, which I later installed, and then the final piece of deck that I had cut out.
Q. For the benefit of the public, Lieutenant McPhillips, could you run your arrow, your mouse over it? And, Mr. Young, could you just direct him to -- where you would put those other pieces of metal, please?
A. Right. If you go towards the bottom, just in the middle

there where there's a light gray colored piece of metal that runs horizontally. Not that -- if you just move down from there towards the bottom of the picture. Right -- yes, right along there in that area, that would close in that chute, and then the -- and then just the deck goes around all of that.

Q. Okay. So you mentioned that, that, you know, you did your measurements, you cut out the steel, and how much steel, to the best of your recollection, did you have to cut out?

A. I can probably gauge it by what I had to put back in.

Q. Lieutenant McPhillips, can you actually scroll up to the receipt part of the same exhibit? I think it's Page 1, potentially 2. Mr. Young, I don't know if this -- oh, that's a little small -- if this might help you?

A. Right. Yeah, no, that would probably give a square footage of what I put back in, which would be a good -- I want to say -- it's definitely more than one 4x8 sheet. I want to say like probably around 40 -- close to 40 square feet, would be my guess.

Q. Okay, and when -- oh, sorry. Go ahead, please.

A. Oh, I said, sorry, just, if not more. It's a little small for me to read that. There we go. Thank you. See if I can find -- I think we did half-inch steel plate for everything, so I'm just looking for that item.

Q. Lieutenant, could you scroll down? I think it might be on the next --

A. Yes. No, let's just --

Q. Maybe not. Okay. So do you --
A. I think it --
Q. Sorry, go ahead, Mr. Young.
A. Oh, sorry. I think it's listed there as possibly -- listed there as 3/8 steel plate. I was mistaken. I thought it was half-inch, but it looks like we used 3/8 there, and it looks like 66 square feet.
Q. Okay, thank you. So back to when you were cutting out the wasted metal, the part that you had to completely replace. You had explained to us earlier that you believe that the previous repair had done a doubler plate on it. Did you happen to see evidence of like a doubler? Did you see that physically?
A. Sorry, it's -- because you -- say that again. Did you say I did the doubler or --
Q. Oh, no, no. I'm sorry. I said, when you cut out the wasted metal, did you see evidence of the doubler?
A. Yes. Yes, that was part of it. There was probably -- that's a -- sorry, that's a good point. There was probably more material than that that I removed, just given the fact that there was two pieces of plate instead of the one.
Q. And for the benefit of the public, Mr. McPhillips will you please just go to Page 5 of that same exhibit that we were just on? I just, I want to be able to show what Mr. Young has described as far as the metal that he has had to replace. So, Mr. Young, is that about what you were talking about, where you

had to cut out that amount of metal on both sides and then cut it? And then can you tell us how you cut that?

A. I cut it out of the boat with a plasma cutter.

Q. And how did you cut the new steel to make sure that it fit accurately?

A. Right. This actually kind of looked like image -- I think I cut them out with our -- we have a water jet table, and I'm not sure if I can -- and basically, you take and draw it out just like that and -- on the computer and type in your measurements and get it to your -- to the desired dimensions and then use the water jet table. It's a computer-driven machine that cuts a variety of materials, but we mostly use it for metal.

Q. Okay. So I just want to confirm, so it wasn't like you were cutting by hand. There is some level of accuracy, and you were using computer modeling to ensure the accuracy based on your measurements that you took. Is that a correct statement?

A. Correct.

Q. Okay, thank you. And then, looking back at the work that you did on the *Scandies Rose*, how was the condition of the rest of the boat, not just the area around where you did the repair, but the rest of the boat in terms of the structural steel or aluminum that was used?

A. Everything looked -- it's a steel boat and everything -- I mean, just in places where they get a lot of wear and tear, obviously there's going to be some rust, but nothing -- like I

said, nothing alarming that I noticed.
Q. Okay. So the *Scandies Rose* is classed as an uninspected fishing vessel. Have you done welding work on an inspected vessel or vessel class by a classification society? Like you mentioned ABS, the American Bureau of Shipping. Have you done work on those types of vessels?
A. I've done some work on our cutters up here at the Coast Guard base that we have here in Kodiak. Trying to think of other --
Q. Okay. Is there anything different in terms of like the level of oversight or workmanship that's required for welding on uninspected vessels and inspected vessels when it comes to welding and repair of that nature?
A. Right. I think it depends on the -- where the work is being done at on the vessel, whether or not it's below the waterline or what the -- I guess what -- yeah, I guess the critical nature of it or whether the nature is critical. They would -- there would be different types of testing done I think. The only welding that I've done on the Coast Guard cutters was just for some fuel tank vents, so it wasn't -- I don't think -- just did a dye pen test, but I think sometimes, if you're welding on like the hull or something like that, they would have you do like a vacuum box or something like that. But they didn't require that in those incidences. And then, versus on the fishing vessel, there's -- as a company or as a business, we just provide the same kind of tests, which is the dye pen test, on our welds.

Q. Okay. So, you know, you had mentioned the dye pen test, the non-destructive testing there via a dye penetrate. Did you do this alone or was there somebody else with you?
A. There were a couple crew members there, and I was the only one that performed the -- like they didn't assist me with it just because I was the only one that knew how to, but they were present, yes.
Q. Was there anybody else from Highmark Marine that was assisting you either by running material or plugging in the calculations into the computer, you know, to cut out the new stuff? Was anybody else from Highmark Marine involved?
A. There was. There was a -- I guess you would call him an apprentice, Hunter Smooty (ph.). He assisted me with running materials and bringing tools to the boat and whatnot and welding the top deck plate back in. I think he assisted me with that. But as far as anything else, I don't believe so, and -- no.
Q. Okay. And did anybody tell you what specific types of welds to do on that steel or what kind of welding rods to use?
A. The -- as far as the types of welding rods and the procedure, like the order in which you use the different types, that's all in accordance with our procedure that's been approved by ABS. And then, as far as the types of welds, Cooper specified when he explained to me how to fit the material and whatnot -- or the new pieces in, he explained to do overlapping joints, that way I could do a fillet weld on each side, which is a very strong type of

weld, so --

Q. Okay. So, as a welder, what's the difference when you do a job on the *Scandies Rose* -- actually, I take that back. You've already answered that you provide the same service to an inspected vessel and a non-inspected vessel.

So I know that you said that you started welding for Highmark Marine, and you started actually doing all the work in about January of 2019. Did you do any work on the *Scandies Rose* before the accident, aside from having to do this weld work in November? Did you do any other work on the *Scandies*?

A. Not on the boat itself, but as far as like servicing like the whole of the boat, just on their tender equipment, which was just some aluminum chutes and whatnot, I think I had done. And then maybe a couple of shop projects as far as like items that they brought in, but not on the actual boat itself.

Q. Okay. As you worked, did anyone supervise you? I know you mentioned Curtis Cooper a few times, but was anybody physically present overseeing your work?

A. Not -- yeah, nobody was assigned to me specifically. there was Cooper's second in command at Highmark, David Cox. I think he stopped by to just check on me and see like how the project was going. That was, I think, after I had cropped out all the old material, but as far -- that was the only instance.

Q. Is that typical for a job that's given to Highmark Marine, or do you have any quality assurance, standard operating procedures

for the company in terms of somebody else checking your work, like your welds?
A. No, we -- I mean, usually, there's somebody, like a senior employee or somebody that has a lot of experience will oversee somebody that hasn't -- maybe doesn't have as much experience, but -- which was David, in that case, checking on me, but I was -- gotten to the point where I could be -- I could perform projects like that on my own. So, other than that, no.
Q. So did anybody from the Scandies Rose Fishing Company, like either the owner or a representative of the -- or the port captain or a port engineer, did they come over and inspect the work with you present?
A. Other the -- the crew members that were there to assist us the entire time, David Cobban and -- I'm afraid I can't recall the name of the other guy that was there. Yeah, I can't remember his name. But they were -- they assisted with everything like helping me set the metal in place and then everything short of welding and prepping material.
Q. Okay. So let's shift a little bit to NDT, non-destructive testing. You said that you did it and that you followed the instructions on the can and that you waited the specified period of time and then added the developer. Could you tell us, were there any areas that you had to redo because the dye pen, you know, indicated there was some kind of stress or crack?
A. No. Every -- it was kind of -- I'd done it a lot at that

point and knew how to create, I mean, a sound, pure weld. And especially given the way that it was fit, there was very low chance of leaks, and I didn't have any instances of that.

Q. Okay. And then, for that weld work that you had to do, did you have to do some overhead work as well? And I just want to make sure that I heard you correctly. Even though that's more challenging, all of the welding came out satisfactory in terms of the NDT testing?

A. Correct, yes. There -- yes, there was some overhead, there was some vertical, but everything got multiple passes on each side. So yes, everything came out.

Q. And you mentioned Hunter Smooty, the gentleman who was apprenticing and was helping you run materials. Do you -- how do you distinguish between welding rods? Like if he was to bring you something, would you be able to just right away say, oh, wait, that's the wrong rod?

A. Yes, they're -- they -- different colors, they look -- as far as like the thick -- the flux coating on the outside is different. They have markings on the backside. They come in different cans. It would be very difficult -- yeah, there's no mistaking them.

Q. Okay, thank you. Do you happen to recall who disposed of the steel that you had cropped out, the wasted steel? Did you and Hunter remove it off the vessel, or what happened to that?

A. I think, generally, we leave that up to the customer, I believe -- or, you know, given the instance where they were parked

at. And, in this case, I'm pretty sure we left it on the boat. They said that they would remove it with the crane when they got over to the dock to load gear, the pots.

Q. And from start to finish, from the time you got onboard and took a look at it what you had to work to the time that you finished up, about how many days went by? How long did that take you?

A. I can't say for certain, but I want to say it was seven or eight days, total. I think I may have jumped on to a different project somewhere in between for a short period of time just to help, but I believe it was about seven or eight days, yeah.

Q. Okay. Thank you so much.

CDR DENNY: Captain Callaghan, sir, I have no further questions at this time.

Thanks, Mr. Young.

CAPT CALLAGHAN: Thank you, Commander Denny.

Mr. Young, I'm going to turn it over now to Mr. Bart Barnum with the National Transportation Safety Board.

Mr. Barnum?

MR. BARNUM: Thank you, Captain.

Hello, Mr. Young. Nice to see you again, and thank you for talking to us.

Commander -- sorry, Lieutenant McPhillips, could you bring up Exhibit 112 again, please? And Page 4.

BY MR. BARNUM:

Q. So, obviously, this is a point of interest here, Mr. Young.
A. Um-hum.
Q. Can you see the screen now?
A. Yes.
Q. Okay. This is a starboard -- picture of the starboard tunnel. Can you explain to us where you entered this tunnel and the different access points?
A. So, if you're taking and you're looking through those lightning holes at the very end, it looks like there's a light down there, that would be where it connects to the engine room, which was one -- it's a difficult means of access, mostly we just ran power cords and whatnot through there, but that was one area. The other opening would be to probably the 6 o'clock of whoever was taking this picture, which went into the -- I think the -- below deck in the forepeak, I think it's a sealed off tank, and then there was a hatch cover in there as well, which was another place we had a ventilation fan in there. And then also the third point was, if you went towards the engine room there, maybe -- I think three or four of those frames -- if you crossed over three or four of those, there was a hatch directly overhead, which went up onto the deck.
Q. Okay. Was that hatch open during your repairs?
A. Yes, yeah. That was the primary means of access.
Q. Okay. So, as we look at this picture and looking aft there, towards the engine room, you stated that you ran some cords and

you accessed through that direction. While transiting back and forth between here and there, did you see any other locations where, you know, recent welding may have occurred on the outboard side of the vessel there?

A. No, not that I noticed.

Q. Okay. So you mentioned earlier, you mentioned doubler plating installed. So the location of that doubler plating installation, would it be safe to say that it was the triangular piece, the greenish color shown here in this picture, was that one of the doubler plates underneath that?

A. Yes, it was -- those plates covered a portion of it, maybe half of the surface area.

Q. Okay. So here on the forward end, half of this surface area on the side of the waste chute was a doubler plate. And then can we scroll down, please, to Exhibit -- let's see. Actually, scroll up, I'm sorry. Page 2. Here we are, looking forward, this would be the aft side of the waste chute. How much of this section here was a doubler plate, Mr. Young?

A. Probably about the same. I'd say maybe a little bit more than half. Yeah, probably up to -- I think, like I was saying, I believe those leaks were coming from the undercut of their welds, so I would say that probably stopped in height where that rust mark begins. And then I think that was a seam right there where those run down, but there was more moving inboard, a little bit more material there.

Q. Did you have any indication when those doubler plates may have been installed?
A. Nope. Other than they just mentioned that they did it in Seattle before they came up here, but I don't know how much time had passed since they did that.
Q. All right. Can you remind us who they were?
A. So the crew on board the *Scandies Rose*.
Q. Okay. So they had installed the doublers in Seattle before coming up. And how about the epoxy over the forward and after sides of this waste chute; did you have any indication of when exactly that was installed?
A. No, the -- they -- I believe it was after the repair was done -- and, sorry, just to clarify, not the crew installed the doublers, but they had it done by a welding service there. And then I believe the epoxy or that Splash Zone that they put it on there to repair the leaks that were coming in after that repair had done -- had been been done.
Q. Okay. So I understand you -- from what you understood from the crew is that they had installed doubler plates on that waste chute, forward and aft side, in Seattle before coming north, and then they installed the epoxy over that in-between?
A. Correct.
Q. Thank you. Just one final question regarding the pipe tunnel, the void itself. While working in there, did you see any sort of bilge float or level indication if water were to enter

that space?
A. I did not notice one. I don't think I ever went through -- like I went from the engine room to that point and then through that overhead hatch into that point, but I don't think I -- I myself ever went from this point towards the forward peak, so I couldn't speak for that area. But where I was, no.
Q. Okay. And, sorry, one more question. Other than those two doublers and the epoxy, was there any other modifications to that waste chute that you could notice?
A. No.
Q. No. All right.
MR. BARNUM: Thank you, Mr. Young. Appreciate it. No further questions.
CAPT CALLAGHAN: Thank you, Mr. Barnum.
Mr. Young, I'm now going to pass it over to Mr. Stacey, one of the parties in interest for this hearing.
MR. STACEY: Good afternoon, Mr. Young. Thank you very much for your testimony. We have no questions for you. Thank you, sir.
CAPT CALLAGHAN: Thank you, Mr. Stacey.
Now I'm going to turn it over to Mr. Barcott, another party in interest for the hearing.
MR. BARCOTT: Thank you, Captain. I just have a few questions of Mr. Young.
Mr. Young, I represent *Scandies Rose*. Mike Barcott. Nice to

meet you in person.

BY MR. BARCOTT:

Q. Could you generally describe the quality of the work that you did on the *Scandies Rose*?

A. Like I described in my schooling, I spent the bulk of that time practicing for an x-ray level weld, to be able to create an x-ray level weld, so that's what I'm familiar with doing is looking for defects and either repairing them or building a technique to not have those in the first place. And I practice that same quality throughout all the work that I do, I try to hold to an x-ray level quality of weld.

Q. And you described some work you've done for the Coast Guard in Kodiak. Was this work you did on the *Scandies Rose* to the same quality as what you did on the Coast Guard vessel?

A. Yes.

Q. You mentioned that you were ABS certified. Could you explain what that means, please?

A. As far as I know -- I probably should -- I probably don't know as much about this as I should, but from -- as it's been explained to me, there's the American Bureau of Shipping, I believe is what that acronym stands for, and they have their codes as far as vessels go. I don't -- and I don't think that they create the procedures themselves. I think like this -- the procedure that I'm qualified to is one that Cooper created and presented to them and then they had to approve, so --

Q. Thank you. When you finished your job on the *Scandies Rose*, packed up your tools and left the boat, was there any bad steel in the area of the chute?
A. No, I wouldn't have been able to weld to it and create a passing weld if there was any bad steel in that area. I would have had a -- it would have caused a defect in my weld.
Q. When you packed up your tools and left the boat, were there any bad welds in the area of that chute when you left?
A. No.
Q. Thank you.
MR. BARCOTT: Those are all the questions I have. Thank you. Thank you very much, Mr. Young.
Thank you, Captain.
CAPT CALLAGHAN: Thank you, Mr. Barcott.
And I do have a couple follow-on questions from Coast Guard for -- from Lieutenant Commander Michael Comerford.
Lieutenant Comerford?
LCDR COMERFORD: Good afternoon, Mr. Young. I'd like to bring up Exhibit 004, Page 22. And if you can scroll down to the bottom further and really zoom in.
BY LCDR COMERFORD:
Q. All right, Mr. Young, this photo was taken at their dockside, so there's a little bit of equipment in the way, but we've been talking about down in the void space and the work you've done. And bringing yourself back to that day, do you remember where that

hatch was from the deck down into that void? Could you indicate it on this picture?
A. Yeah, I think so. I'm trying to -- I think this is looking towards the bow of the boat, if I'm not mistaken, I think that hatch would be -- it should be, I think, just underneath where that person is taking the picture, or maybe just underneath that yellow hose, I believe.
Q. So --
A. Maybe --
Q. So it's closer to the house or was it that area that's indicated right now?
A. I don't think it was that. I can't -- it's a little different just because there was a -- they were full of pots when I was on there, but that looks like the regular -- that looks kind of like a fish hold hatch, if I'm not mistaken, where it's got a dogging system on the inside. The hatch that I was referring to had a series of bolts going along the outside of it with a neoprene gasket in between there -- it's how that's designed.
Q. All right. Lieutenant McPhillips, can you zoom back out and scroll up -- I think it's two pages up? And, while he's scrolling up, can you just talk me -- talk to me about the condition of that hatch? You know, did you notice anything -- right there, Mr. McPhillips, that's good. I think that's the best one we have for right now. You know, just talk to me about the condition of that hatch, and when we circle back around to it, maybe you can

indicate on the photos here if you know about the area you entered.

A. Right. I think on that photo on the left-hand side, if you look down in the right-hand corner, you should be able to -- I think might be able to see it if you zoom in there. Maybe not. Maybe -- I think I might know what the issue -- I believe it's below the deck boards, so there's that subdeck, and I think the deck boards might be covering is why we can't see it because I recall the -- having pulled up the deck boards now to be able to access it.

Q. Okay, thank you. And just -- do you recall the condition? Was there any signs of wastage to the hatch or anything you recall about the hatch when you were going in and out?

A. Right. No, nothing. Nothing alarming, no.

Q. All right. Just a generally good or reasonable condition for the -- consistent with the rest of the vessel?

A. Correct.

LCDR COMERFORD: Captain Callaghan, that's all the questions I have. Thank you.

CAPT CALLAGHAN: Thank you, Commander Comerford.

So just have a couple of follow-up questions for you, just to close it out.

BY CAPT CALLAGHAN:

Q. So, in regards to the Splash Zone applied around that chute, based on your experience, was that a normal amount of Splash Zone

to see for one repair?
A. I think it was a lot. I haven't really seen it used on that scale before. I think, I mean, I've seen it used in a variety of ways, but that's probably the most I've seen, I think.
Q. Okay. Yeah, and so, while you were onboard, we focused a lot the repairs, was your work onboard limited only to that forward chute?
A. At that time, yes. Other than what I had been asked about before, just that like tender gear and whatnot. But at the time, yes.
Q. Sure. Did you see any -- when you were in down in that void, did you see any other areas that had similar concerns?
A. No, I did not notice anything.
Q. Okay, thank you. So, Mr. Young, is there anything for the benefit of the Marine Board that you think that we may not have covered with you today, that you think would be of value to this investigation?
A. No, nothing that I can come up with.
Q. Okay. Is there any additional information that you would like to add or any recommendations that you think you have?
A. I don't.
Q. Okay.
CAPT CALLAGHAN: Well, sir, I'd like to thank you for appearing here with us today, for your testimony and for bearing with us with our virtual environment. So appreciate your time.

You are now released as a witness at this formal hearing. Thank you for your testimony and cooperation.

If I later determine that this Board needs additional information from you, I'll contact you directly, through our -- through one of the Board members. If you have any questions about this investigation, you may contact the investigation recorder, Lieutenant Ian McPhillips. Thank you very much, sir.

THE WITNESS: Thank you.

(Witness excused.)

CAPT CALLAGHAN: Okay, the time is currently 1533. This hearing will now take a recess, scheduled to reconvene at -- with the next witness at 1600.

(Off the record at 3:32 p.m.)

(On the record at 4:01 p.m.)

CAPT CALLAGHAN: Okay, the time is now 4:02. This hearing is back in session. We have Mr. Kerry Walsh.

Mr. Walsh, Lieutenant McPhillips will now administer your oath and ask you some preliminary questions.

(Whereupon

KERRY WALSH

was called as a witness and, after being first duly sworn, was examined and testified as follows:)

LT McPHILLIPS: Please be seated. Please state your full name and spell your last name.

THE WITNESS: Kerry Verne (ph.) Walsh, W-a-l-s-h.

LT McPHILLIPS: Please identify counsel or representative if present.

THE WITNESS: None.

LT McPHILLIPS: Please tell us, what is your current employment and position?

THE WITNESS: I work for Global Diving and Salvage as a project manager and a salvage master.

LT McPHILLIPS: What are your general responsibilities in that job?

THE WITNESS: It varies. I help with managing larger projects. The more unique ones seem to come my way -- I'm getting a long echo here. I don't know if there's something I can do about it.

CAPT CALLAGHAN: Sir, are you playing --

THE WITNESS: I'm hearing you give me the oath.

CAPT CALLAGHAN: Are you playing the livestream locally?

THE WITNESS: Oh, maybe. Let me turn that off. Yeah, that might be it.

CAPT CALLAGHAN: That's it.

THE WITNESS: Good call. Perfect, thank you.

So my job is managing Coast Guard projects predominantly these days. Hurricane response, one-off things like *Scandies*, or other projects that require a presence of the command post, typically, these days.

LT McPHILLIPS: Can you briefly tell us your relevant work

history?

THE WITNESS: Briefly, I was in the Coast Guard '72 to '80 as an ET and an EMT. And I got hired on a ship called the *Salvage Chief* the day I got out of the Coast Guard. And I worked onboard the *Salvage Chief* and in the office at Fred Divine Diving and Salvage until '96. That's when I took a turn and went to work for an automation company as a service engineer doing shipboard automation until 2009, when I joined Global. And I've been doing that since.

LT McPHILLIPS: What is your education related to your position?

THE WITNESS: Just on-the-job training. There's really no training ground for it.

LT McPHILLIPS: Do you hold any professional licenses or certificates related to your position?

THE WITNESS: No, none other than the normal training certificates that we have to have.

LT McPHILLIPS: Thank you. Captain Callaghan will now have some follow-up questions for you.

CAPT CALLAGHAN: Thank you, Mr. Walsh. I'm now going to turn it over to Commander Mike Comerford to ask a series of questions from the Coast Guard.

Commander Comerford?

BY LCDR COMERFORD:

Q. Good afternoon, Mr. Walsh. All my questions today are going

to be related to the survey conducted by Global Diving and Salvage in the realm of the safety of commercial fishing vessel operations.

Thank you for being on the line with us and attending this hearing virtually today. If at any point we ask you a question that you do not understand or cannot hear because of technical difficulties, please do not hesitate to say so and we will repeat or rephrase the question. We will take breaks as needed throughout the hearing, but if you need a break, please let us know.

Using this Zoom platform, we have the ability to share exhibits virtually. The recorder, Lieutenant McPhillips, will put any exhibits up on a monitor on your virtual desktop. If, at any point, you need to point something out on the exhibit, Lieutenant McPhillips will highlight the area for benefit of the Board and our livestream audience. When we look at these exhibits, please take your time to refresh your memory or acquaint yourself with the information as necessary.

As a note to the families, friends, and fellow fishermen, we will be talking with Mr. Walsh about the wreckage site of the *Scandies Rose* on the sea floor and the observations of the survey equipment he used to survey the site. We will talk about remarks of two unidentified victims in that survey.

Mr. Walsh, we have you scheduled here until approximately 1715 local time.

First off, Mr. Walsh, I'd like to expand on your background when it comes to the type of work you undertook related to the *Scandies Rose*. Do you have any experience operating a commercial fishing vessel?

A. No. No experience.

Q. Are you familiar with the waters in the general area of Sutwik Island or south of the Alaskan Peninsula?

A. Over the years, I've been up there for different projects, but never in the area of Sutwik Island.

Q. Could you describe general areas you've worked in before?

A. The Aleutians, north of the peninsula, south of the peninsula, Chignik, King Cove, Kodiak, Port Lions on Kodiak Island, up in Cook Inlet. I mean, pretty much coastal waters and --

Q. In your other projects and the *Scandies Rose* projects, do you -- could you describe what you recall from the general currents in the areas, maybe Chignik area to the (indiscernible)?

A. In terms of what, the water currents that we were experiencing on site?

Q. Yes.

A. Well, it depends on where we're talking about. You know, some of the places I worked were in protected bays where currents weren't an issue. Out in the open waters of Sutwik, they were definitely an issue.

Q. Could you please talk about how you got the job to do an

underwater examination of the wreckage of the *Scandies Rose*?
A. I think our Anchorage office was in contact with Mr. Barcott after the accident, and I think that, within the management in our Anchorage office, they reached out to our casualty group, which I'm part of, and I was assigned the operation to go up and put the plan together and pick up the project for the casualty group.
Q. All right. Could you expand on that? What was the scope of your work for that job?
A. For that job? I came to Kodiak on January 30th, I believe, and Mr. Barcott contracted us. And when we had that contract, I went out to Kodiak and I got on board the *Endurance*, the boat that we were going to use for the platform. And I moved onboard the boat and the captain of the *Endurance*, Captain McPherson, and I watched the weather every day looking at the weather forecast in the area of Sutwik, looking for a weather window to come across.

And in the meantime, we contracted with eTrac to do the hydrographic work, and we mobilized our ROV out to Kodiak in preparation to put it all on the boat as soon since we saw the weather window coming. And then my job was to make the decision when we were going to sail, looking at the weather. And we did that -- I think we decided that we were going to go on the 5th, and we mobilized all the equipment onboard and took off and went out to conduct the work.
Q. Lieutenant McPhillips, could you please bring up Coast Guard Exhibit CG-008, Page 4, please? All right, Mr. Walsh, I would

just like to take an opportunity for -- to hear from you. Could you describe the vessel and the specialized equipment that you used to conduct this survey? The first page starts with the vessel, and you can scroll down to subsequent photos as necessary.

A. Sure. So the boat in the photo is the *Endurance*. It's a 207-foot ice class boat that is owned by Paradigm Marine. She's solid, she's seaworthy, she can take the conditions that we were expecting to deal with out in February, out in the area of Sutwik. We needed to outfit it to do hydrographic work and to deploy an ROV. I think you can scroll down, there might be the photos of the hydrographic pole that we had to install -- well, capable with the ROV.

So the ROV that we put on is a Global Diving asset. That's a Falcon ROV, it's an inspection class. It's a very handy device because it's lightweight, you know, a couple of guys can wrestle it over the rail. We rigged it up with about 150 feet of free tether connected to a 500-pound clump weight, and the clump weight was lowered over the side, ultimately, and down to the depth that we needed it be at near the wreck, and that gave the operator about 150 feet of free tether to fly around with to do the survey.

But, in order to do that, we needed to be able to navigate, so scroll down a little bit more. This is the ROV station. This is where our operator is able to see the camera. That's the screen to the right that he's working with. The screen to the left is a sector scanning sonar that's mounted on the ROV. And

he's recording on the laptop that is down under his hand. So he's operating a sector scanning sonar, and he's operating the camera, and in his lap, he has the controls to control the thrusters for the ROV.

Off to the left, and not in any photo, is another computer with a fellow from eTrac who is providing navigation information, positioning information for where the *Endurance* is on the surface, where the clump weight is down below the surface in terms of relative position to the surface, and how deep it is. And then he's also got a pinger on the ROV itself, so when we're in operation, he's able to give the information to the ROV operator where the *Endurance* is above him, where the clump weight is relative to the wreck, and where he is relative to the wreck. So it's kind of a 3-dimensional exercise.

Keep scrolling. So this is the navigation system, so to do the subsea navigation, we needed to rig a hydrographic pole that we had fabricated in Kodiak. And this pole is able to be swung up, as the picture on the left shows, and technicians are able to change out the instrumentation that's on the end of the pole. In this picture, this is the multi-beam sonar that we're going to use for the very first phase of the project. Once the instrumentation is onboard, it's swung into position and bolted up to the hull in a vertical position so that the end of the hydrographic pole extends below the hull of the *Endurance*.

In order to change the instrumentation, we need to lift it

back up into the other position to go into the second phase of actually navigating ROV. On top of the nav pole is an inertial system that monitors the motion of the pole and sends a signal to help calibrate and dampen out any vibration issues, the heave of the vessel, the roll, the pitch, all that information is fed back to the computer system.

You want to keep scrolling. And stop me if you've got questions about any of this stuff.

So that's the surface positioning system. This is the -- I was always intrigued by the POS MV, and that's just the Position Marine Vessel is what that means. But it's two systems that measure the roll, the pitch, and motion of the vessel, feeding that information back so that all of the random motions of a vessel are taken for -- accounted for as much as possible in the processing of the multi-beam in the navigation systems.

So the device down below is sound velocity. The sound velocity is an instrument that's mounted next to the multi-beam when we do the sonar, and what that does is it takes constant measurements of the time it takes for sound to go from the sensor to the seafloor and back, and it calibrates that against the sound that's being emitted by the multi-beam sonar and corrects the timing. So, again, it's a calibration device that makes the signal from the multi-beam more accurate.

After the multi-beam is done, we pull the pole up, and we take off the multi-beam sonar head, and we put this device with

the red head on it. And that's the HiPAP precision positioning transducer. This device communicates with pingers, and that's the yellow device that's right below it. And the transponders are mounted to the clump weight, they're mounted to the ROV, and there's one on the boat itself. And those transponders are communicating to the HiPAP system to tell the navigator where the ship is -- where our ship is on the surface, where the clump weight is down below the surface in terms of position and depth, and same thing with the ROV, where the ROV is in terms of position and depth.

One thing to keep in mind as we talk about this is that the *Endurance* is not at -- not going to be at anchor for any of these operations. She's going to be live boating, and that means that in the currents on the surface, she's going to be having to maneuver and maintain the clump weight in a position that's suitable for the survey. And if you've seen the videos and you've listened, you hear those directions being given to the captain, you know, in terms of moving mere feet sometimes. And it's pretty impressive how he was able to stay on position with the conditions we had. Keep scrolling.

Q. Real quick on there, you mentioned working with the captain. Have you worked with this vessel and captain before?

A. You know, I've never been on that boat before, or with that crew, actually, personally, but Global has. We've used Paradigm Marine in a variety of ways for different salvage operations out

of Kodiak and in other areas around Alaska.
Q. And one other very small question, you fabricated the hydrographic pole. Do you have your own welders, or did you contract a welder in Kodiak?
A. That was done by Highmark Welding Fabrication in Kodiak.
Q. What was the -- how would you rate their quality?
A. Superb. They did a great job. I mean, considering it's a engineered on the spot sort of device, they did a great job, actually, putting that thing on.

Okay, now we're out on site. You know, the -- to get to where we're going to look, we got a variety of coordinates. We got some from the Coast Guard, we got some from a vessel that went by and thought they looked at it with depth sounder, and we got AIS data from the Alaska network. And with that, we knew where we were heading and gave us the basic search area. But when we arrived on site, it was pretty obvious where it was because there was a big ribbon of diesel extending down current that, you know, pointed right where the wreck was. So we were able to find it very quickly and conduct the multi-beam.
Q. And can you remind me, what was the date at this point?
A. I want to say this is the 10th.
Q. All right. So that's a -- if it sank on New Year's Eve, we're talking about plus or minus 40 days. Is it, in your experience, common to have a small sheen lasting that long?
A. Well, you know, I mean, that's a variable, right, how much

fuel they had on board and how it's leaking. You know, we didn't see, in our surveys, any visible plumes of oil coming out of the wreck, you know, so at the surface, when we went to the -- where you can look and -- down into the water and see the oil coming up, it looked like small bubbles of diesel that were not visible to us on bottom. So, you know, it could be dribbling for -- I don't know, as long as it's got fuel. I don't know.

Q. All right. Thank you. I'll turn it back to you to continue.

A. Okay. So the multi-beam sonar survey, as I say in the report here, it's attached. We can talk about it when we get down to that document, probably be the best thing. You want to do that? Yeah, if you just scroll down to where eTrac's report's attached.

Q. Are you -- and you're looking for the --

A. Keep going.

Q. -- multi-beam sounding report?

A. Right, yeah, let's go there.

Q. So, the (indiscernible) would be down --

A. Yeah, at the bottom. Just keep going. Okay, and go up a little bit. Okay, so -- yeah, I think we can talk about it here. So, when we went over the wreck with the multi-beam, we were seeing -- first of all, let me back up a little bit. A multi-beam sonar survey develops a thing called a point cloud. It takes a lot of pings of the sea floor and it receives those as return signals that are just stored in what's called a point cloud. And that point cloud needs to be processed. That requires some pretty

serious computing power, power that we did not have available out on the *Endurance*. To process it, to even get the images that we're looking at right now, required that we had to have that information back to shore and that -- it required, even then, three days of processing to get the information that you're seeing on the screen right now.

So what we had on site was a lot less informative. We could see the outline of the boat. We could see where the bow was and the stern was, and we could see the general debris pile on the sonar images that we had available to us on site. That makes sense? So I didn't -- we didn't see these images until after the report came back to us several days after we were back to shore. So what we're looking at here is -- the red area is the vessel itself. It's marked bow-stern. North is due up on the picture. These guys are subsea navigators. I think they just use latitude and longitude in their head to figure out directions, and it's been pointed out to me that there should be a compass rose on there, and I agree. But that's how she set -- laying with the bottom of the ship pointed north.

The debris field, if we go down a little further, we can see some elevations. Scroll down. Or -- okay. Yeah, you can keep going -- oh, let's look at this one. The potential debris field, we never saw this information. There was no indication of that in the unprocessed multi-beam data that we had on site, so we never went to that area to look at it. This is information that was

developed after we got the report back.

But the suspicion that if (audio distortion) debris on the way to her resting spot. Judging by the fact that there's not a lot of other debris around, that could be the case, although, in the ROV survey, we did find a great big boulder right off the bow of the boat. So it could be rocks as well. We just don't know. We never got a chance to look at that while we were out with the ROV.

Q. So, while we're here, Mr. Walsh, you mentioned you were provided AIS data. You were very -- you were able to readily identify it with a sheen. The stern positions noted here in this report, in that bottom left table, do you -- could you talk about how that position relates to the AIS information you were given?

A. You know, I never compared it, to be honest with you. Once we found it, you know, the positioning data that we were given was no longer relevant to us. So I personally have never compared that, that information. It'd be an interesting question though.

Q. Yeah, one second. I'm going to pull up something real quick. All right, so while we have that table up, I'd like to just read the last AIS position that we had. We had it at approximately 56.49 degrees north and 157.01 west. Just comparing the position, is it -- could you give us a general idea how close that is?

A. No, I'm not -- yeah, I'm not that guy.

Q. Thank you. That's fair. Thank you. But I'll turn the mic -- the floor back to you, and you can continue what you were

just talking about.
A. Okay. Scroll down a little bit. There's a graphic with elevations that -- this is a graphic that just shows the water depths that were measured around -- yeah, this is the one that's got the depth lines on it. This gives a three-dimensional component to it. You can see the sea floor at 165, and I think the shallowest depth that we measured was 141 in a location. But, you know, just more sonar data.

Now, you know, in a perfect world, we'd have a lot more clarity in the multi-beam, but the issue with trying to get a complete like snapshot almost image view of this particular wreck, there were several factors. Number one, we were live-boating with a boat rolling on the sea. Number two is that there was a vibration in the hydrographic pole that was caused just because we had to maneuver with the engines, so the pole vibrated a little bit, which caused some interference. And then there was all the crab pot buoys and lines that were suspended above the wreck that gave information that needed to be filtered out. So that's -- you know, if you've seen clearer multi-beam images, that's the reason for this one not being so clear. But it gives us the information that we need to know where she is and how she's laying and what the water depths are.

Q I'm sorry if you already said it, could you talk to what the approximate average water depth was?

A. It was 165 feet to the bottom, all around the wreck, and the

shallowest we saw, as I recall, was 141 feet at a particular point on the wreck. I'm not sure. I don't think it's indicated in this image. But that would be, you know, up on the hull, the port side, at some point, probably up in the bow area. Any questions about the multi-beam survey?

Q. I think you answered all the questions I had about the multi-beam.

A. Okay.

Q. Right before we go into the next part, just a general question. Were you provided any photos of the *Scandies Rose* or information about the *Scandies Rose* before you -- or when you took the contract to help when you were on site?

A. You know, the only photos we had were the ones that are generally available online, and I don't recall getting anything specific. We didn't have drawings of the vessel or anything like that. We knew what she looked like and we weren't planning on going in her, you know, we were going to just do an external survey. So the images that we had and that we used were just basically online photos that were available to everybody.

I don't know, maybe -- is Mr. Barcott on? He could maybe recall if he sent us anything to the office, that was not net specific.

MR. BARCOTT: I can't recall.

THE WITNESS: Okay.

MR. BARCOTT: All right. Sorry, Kerry.

THE WITNESS: Yeah, me neither. Again, it might have been with you and (indiscernible), but -- yeah, I think it was just online images.

BY LCDR COMERFORD:

Q. All right. Now, there was extensive video footage taken at the survey. Can you tell us, ballpark, how many hours that the ROV was on-scene taking videos?

A. Well, you know, the first ROV -- when we went back out the next day after the multi-beam, we knew we had weather coming, but we wanted to get a dive in and see what the general conditions were. So we put the ROV in and we -- I'm going to call it sneaking up on the wreck. We didn't know what we were dealing with in terms of entanglement hazards, so there was a lot of maneuvering, and at one point, we found the stern of the boat, which is the cover photo in our report is that -- that's the first image of seeing the *Scandies*.

We did a brief look-about. We determined the entanglement hazards. We got a handle on how much current there was on bottom, which was significant. We had a device that was on the side called an acoustic current Doppler profiler that actually takes an indication from top to bottom of the currents at various depths, and we were seeing currents between like half a knot to two knots using the ADCP [sic]. But on bottom, those same currents, when they impacted the wreck, were flowing around it like an airplane wing and creating, you know, random and high velocity currents

that really impacted the ability of the ROV to maneuver.

So we aborted pretty quickly after doing the initial dive. We pulled everything back, we secured the decks for weather, and we went up into Sutwik Island, got in the lee and jogged through the night while we encountered pretty heavy weather that night. And the next day we went back out and did the actual, full survey, way better prepared, knowing what we were going to be looking at and where she was and how she lay. And that would be -- I think, the first dive from launch to end was about an hour and a half, and I want to say the second dive was somewhere in the vicinity of two hours. I'd have to go back and look.

Q. So, when you're jogging underneath Sutwik there, you said heavy weather. Could you give a perspective of that weather on-scene?

A. You know, I would say it was probably similar to what the *Scandies* encountered the night she sank, but we were in the lee. That's just anecdotally from the captain making a comment that, if we were out in the same location, we would be in heavier weather. We were seeing, I'm guessing, where we were, probably seas 10 to 15, heavy winds and snow and freezing spray for that night that we laid in the lee.

Q. Any -- was there any ice accumulation on deck while you were in the lee?

A. Yeah.

Q. I know (indiscernible) protected, but --

A. Yeah, we built ice on the railings and on the decks that night, yes.
Q. Could you go a little bit more in depth about that? Do you recall about how much or where -- what type of --
A. I want to say on the bow railings there was maybe an inch or so or -- you know, I'm not that sure. I didn't pay much attention to it. I just knew it was there, wasn't going to impact us for what we were doing. And -- but we definitely, we definitely got ice on the boat, even in the lee of that island.
Q. And I understand it's rough, but an inch -- roughly an inch. You said that was just over the one night?
A. Yeah.
Q. So no ice when you started into the lee. By the end of the night, one inch?
A. Ish.
Q. Ish?
A. Yeah. Yeah. Yep. And we can confirm that offline with the captain. He probably remembers.
Q. So far, you've described some current -- I think you described it as like airplane wing turbulence around the currents, the entanglements. Were there other challenges you had with the ROV for the survey?
A. The current -- the two main challenges with the ROV were, number one, current, and number two, the entanglements. And the current -- you know, the ROV has a thrusting forward power with a

speed of somewhere in the vicinity of three knots, and there were times when the ROV operator could not make headway against the current. And then, when I talk about an airplane wing, it's maybe misleading, but when the current hits the ship and has to come over the top of it, it seems to gain velocity.

And it's -- so you could be away from the wreck and have manageable currents, but as soon as you try to get up on top of the hull, all of a sudden, you're in heavier currents. And we timed our dives with the ROV for the exchange from flood to ebb and to be down there during that maximum period of calmness that we should expect, but we never saw that. It was -- there was always current, always variable as it went from flooding to ebb.

Q. Perhaps two questions to set the stage for going through the photos you provided in the reports. The timestamps that are on the photos, would those be -- should those be considered accurate?

A. Yeah, I think so. The ROV computer, the time was set with that, and it's -- whether it's accurate to universal time, I don't know, but it's accurate to what's in the video.

Q. Okay. And then, in general, did you observe any penetrations of the hull or your team observe any penetrations of the hull that might be there that were not part of the vessel's design, such as weld seams that split open, holes, cracks, or anything like that?

A. The only thing that was abnormal, in that respect, was the condition of the doors on the front of the house and back of the house. The forward door at the main deck level was imploded, like

it had been pushed in, and the starboard door on the aft deck was blown open and it was blown right off its dogs. You know, that was unusual. It would take a naval architecture or some marine engineers to figure out why, but when we looked at that, we saw an imploded front door and a, you know, exploded aft door. And the fact that she came down on her stern, we assumed something maybe like a water hammer effect when the boat hit bottom.

Q. Okay. And maybe we'll have a chance here to see that. Lieutenant McPhillips, could you bring up Exhibit 008 and turn to Page 9? And when it comes up, we'll -- one second while I -- loads up. So what I'd like to do is just walk through the figures here real quick. And this first image is of the *Scandies Rose*. Could you just describe any -- overview of it, any takeaways?

A. You know, this is the first image when we came upon the wreck. We were searching. The navigator was giving direction to the ROV. ROV was giving direction to the *Endurance* on where to move. We came closer and closer to it. We started picking up the shadow of the stern on the scanning sonar on the ROV, and then she resolved into this image, which is, you know, the first thing that we saw. In this picture, what we saw when we got a little bit closer is the damage to the railing and the stern that indicated to us that it came down onto the bottom, stern first, and impacted the bottom before she rolled forward -- pitched forward. But there was no other real abnormalities here.

Q. All right. Lieutenant McPhillips, can you go to the next

page, please?
A. Yeah, this is just an image that was taken -- I believe this is up on the house, and it's just crab pots -- or crab floats that were tied off on the top of the house and on railings around the accommodation. And it's just an indication of the kelt (ph.) force that extended forward on the boat. When she went down, a lot of crab floats came out of the buoys -- or came out of the crab pots and were just suspended above it. A life ring came out of its rack and was up like within 40 feet of the surface.

The picture below is the aft door starboard side that, in the video, is actually moving with the current. You can see it kind of flopping in the current. So the window's gone, obviously, broken -- the door's broken, and that bottom dog is -- even though it's in the open position, it's just -- the door is swinging freely.
Q. I'm actually going to have Lieutenant McPhillips raise just a screenshot of Exhibit 009, the ROV footage at minute -- it's going to be the first dive footage, minute 2026. And we're not going to play the video. I just want to bring up the screenshot from a different angle of the aft section and give you a minute to just take a look at that. And after you've had a moment, I'm going to bring up a photo of the *Scandies Rose* after its last dry dock.
A. Okay.
Q. All right. Lieutenant McPhillips, could you bring up Exhibit 004, Page 18? And this is from the -- this was a condition and

valuation survey done after dry dock. If you could focus, Lieutenant McPhillips, up on the top two photos.
A. Um-hum.
Q. And when he gets those in, if you could just make any observations from your memory of the video or the screenshot we provided and what type of damage you saw in the area in general terms.
A. Well, I think in the video footage, especially on dive two, it's more obvious. The railings are broken at the stern. There's hull damage at the stern on the starboard corner. That's really, I think, the only damage from these photos and the video that we took that I would say is evident at the stern.
Q. From the signs of damage -- the rail, the door, and I believe I saw the rain -- well, we saw some damage there. Would you think there's -- would it be consistent with any type of orientation at impact on the sea floor?
A. We -- when we looked at her, we -- and, again, we're not going -- you know, we're just down there doing our video, but to us, it looked like it came down and landed on the stern corner, starboard side, and impacted basically on the corner of the main deck area and then fell forward and onto her starboard side. But that's just based on the visual damage that you can see on the starboard quarter compared to the relative undamaged port quarter.
Q. Do you recall any damage to the stacks?
A. You know, we didn't get -- I think there was some -- I'd have

to go back and look. Yeah, we didn't really focus on it. We were up there for a while. It seemed like I remember some of the stack piping appearing to be broken. But as far as the stack shroud, the housing of it, I didn't really look at it that close. I'd have to go back and look at the video.

Q. All right. Lieutenant McPhillips, could we go back to Exhibit 008, the survey -- or the search and survey -- the Global Diving report? And we'll go back to -- I think it's Figure 10 at this point. So it'd be the next page. And I'll turn it back to you, Mr. Walsh, to continue through the photos.

A. Okay. Up on the port railing, it's -- this is like on the stack deck, on the port railing, we -- one of the things that we were tasked with finding was this bracket, which is the EPIRB bracket, obviously empty. And we just spent some time looking at that. And that's what that is, the EPIRB bracket.

Q. Some emergency position indicating radio beacons have a small diameter tether line attached to them.

A. We looked for that and didn't see it.

Q. Thank you.

A. Um-hum.

Q. You can -- let's go to Figure 11, Lieutenant McPhillips.

A. Yeah, this is the main deck forward door on the port side imploded. I think that on the video there's probably some better images as it -- as the ROV moves around. And you guys are -- your pictures are kind of blocking the view of it, but -- yeah, she

just pushed in, you know. And that's -- again, that's when we were talking, we figured maybe just from the boat hitting bottom so violently that, you know, with the water impacts, just kind of made a water hammer that blew that door in and blew the other one out, but that may not be the case. I don't know. We were just guessing.

Q. All right. Lieutenant McPhillips, we can go to Figure 12. If there's anything important to note of these next photos, please let us know.

A. This is the top of the debris, the debris field, off the main deck. You know, it's pretty obvious, when she went over, a lot of the crab pots were dislodged and are piled on top of each other, limiting any ability to get alongside the starboard side of the vessel.

Q. All right, and next.

A. That's the foremast laying on the seafloor.

Q. Continue on, Lieutenant McPhillips.

A. Pardon me?

Q. Just moving the next photo.

A. Okay. So this is -- one of the things that we were tasked with was to try to get to the overboard chute and try to visualize that if we could. We made two different trips to that location. The second one would be at the very end of the survey portion of video two where we went down and tried as best we could, given the visibility, to document how close we could get to that area of

interest. And we referenced, as I recall, on the main deck, that we were able to get just below the mooring bits on the starboard side bow. And after that, the vessel was laying down hard on her side, and it was laying on top of crushed crab pots, so we just were not able to get close to it.

Q. All right, Mr. Walsh, so you mentioned that was one of the items you'd been contracted. Could you identify the other items that you were contracted to identify or target?

A. The two main things that we were to look for -- well, three, was the area of interest here in the overboard chute, the EPIRB bracket, and if we could see any of the victims through the windows.

Q. And did that include --

A. Other than that, it was -- other than that, it was try to get a complete survey of the vessel, as best as possible.

Q. And with regards to the victims, I apologize, but is that just to identify potential -- or was there any further guidance with regards to --

A. The guidance was to not make any attempts to touch or do anything other than to visualize them. Those were the instructions.

Q. All right, the next two pages we're going to -- are the Figures 15 and 16 for the victims. We're going to skip over those out of respect at this time. Some general questions, would you consider the wreck salvageable?

A. Yes.
Q. And the debris field that you saw, would it be a hazard to navigation?
A. The debris field? Not unless it was some really deep draft vessel. But the thing -- I think the only thing that would concern me, as far as navigation goes, is anybody coming through maybe with a trawl, you know, coming through the area and snagging up on the suspended ropes and stuff like that. But I don't think that the wreck itself or the debris field's a hazard to navigation.
Q. And based on your experiences, of course, in the salvage and diving realm, and looking at the ROV footage and other equipment you used, was there anything about the wreckage of the *Scandies Rose* that was unique or different from other wrecks you have observed?
A. Nope, nope. Just tragic. Yeah. It was nothing different or unique about it. I mean, no obvious reason, no obvious sign of why it went down, in our eyes, you know, that we could see.
Q. All right, thank you very much, Mr. Walsh.
LCDR COMERFORD: All right, Captain. At this time, that's all the questions I have.
CAPT CALLAGHAN: Thank you, Commander Comerford.
Now, Mr. Walsh, I'm going to turn it over to National Transportation Safety Board, Mr. Bart Barnum.
MR. BARNUM: Thank you, Captain Callaghan.

And thank you, Mr. Walsh, for your report, a thorough report there and also providing the videos. They were very useful in our investigation. I have no further questions for you, though, at this time. Thank you.

THE WITNESS: You bet.

CAPT CALLAGHAN: Thank you, Mr. Barnum. Now I'll --

THE WITNESS: Captain, you're muted.

CAPT CALLAGHAN: -- turn it to Mr. Stacey for any questions.

Thank you, Mr. Barnum. I'll now turn it over to Mr. Stacey for any questions from PI.

CDR DENNY: Captain, you're muted.

THE WITNESS: The captain's muted.

CAPT CALLAGHAN: Thank you, Mr. Barnum. I'm going to now turn it over to Mr. Stacey for questions from the PII.

MR. STACEY: Good afternoon, Mr. Walsh. We haven't had a chance to meet in person, so during COVID, this is the best we can do, but it's very nice to meet you, at least, virtually.

THE WITNESS: Thank you.

BY MR. STACEY:

Q. Just a couple of very brief questions, sir. Did I hear you correctly that based off of the ROV footage and the work that you and Global did, that you concluded that *Scandies Rose* went down stern first?

A. Yes, that's what it appeared to us, that she impacted on the starboard border stern.

Q. And now, do you know at all, based off your work, how long she took to sink?

A. No, no. No idea.

Q. Okay. All right, thank you.

MR. STACEY: That's all I have, Captain.

CAPT CALLAGHAN: Thank you, Mr. Stacey.

I'll now turn it over to Mr. Barcott for any questions.

MR. BARCOTT: Thank you very much, Captain.

Mr. Walsh, thank you, and thanks for your work in February. It is very helpful to us all, so thank you very much. No questions.

THE WITNESS: You're welcome.

CAPT CALLAGHAN: Okay, Mr. Walsh, I've got a couple of quick questions from Commander Denny.

Commander Denny?

CDR DENNY: Thank you, Captain.

BY CDR DENNY:

Q. Good afternoon, Mr. Walsh. Just a few questions of clarification. A while back, you mentioned that the *Endurance* was jogging because you were experiencing some inclement weather and that you specifically said that the *Endurance* was jogging in the lee of Sutwik Island. So just to be clear, that was to protect the vessel, that was to protect the *Endurance* because of the inclement weather. Is that correct?

A. Absolutely right. Yes.

Q. And did jogging in the lee protect the *Endurance*?
A. Yes, it did.
Q. How close to Sutwik Island did you have to get to get that protection?
A. You know, I wasn't navigating, but -- no, we were -- at a couple points, I'm going to say we were a half mile off the island. Enough to sight-see. It was kind of a beautiful day, in a rough weather kind of way.
Q. So, sir, you also referenced that you were tasked with looking for certain areas of interest, and I just want to make sure, could you recap for me what you could access -- or what you could not access of the tasks that you were asked to look at? What could you not access or accomplish?
A. The one thing that we could not accomplish was looking at the overboard chute in that area because of the way the vessel, lying on her starboard side and she's laying on top of crushed crab pots. So the boat is smashed down on that area with debris. We just could not get to it to see it.
Q. Thank you, Mr. Walsh. So last question from me, do you know why that was a particular area of interest? Why were you tasked with looking at the starboard chute?
A. Well, before we left dock, I mean, it was obvious there was questions about the fabrication work that had been going on prior to the ship sailing and that that was a potential cause for her potentially to have gone down if the repair had not been done

correctly or it failed. So we were -- our job was to look and see what we could see and record it as much as we possibly could, and we just couldn't get there.

Q. Okay. Thank you, sir. Appreciate it.

CDR DENNY: No further questions, Captain.

CAPT CALLAGHAN: I've got one more question from Lieutenant Commander Comerford.

LCDR COMERFORD: Hi, Mr. Walsh. I'm going to have Lieutenant McPhillips bring up the second day of ROV footage around minute 10, 10:01. And go ahead and hit play real quick, Lieutenant McPhillips.

BY LCDR COMERFORD:

Q. All right, Mr. Walsh, you see the stack there and everything. You can pause, Lieutenant McPhillips, because I just want to show the damage on the stack. Could you make a comment on that? And we can back it up. We can back up the video if you want.

A. No. If I'm oriented correctly, I'm looking at the deck. There's a manhole that's on the side of the stack housing. Is that right?

Q. Yeah. And, Lieutenant McPhillips, are you able to back it up a few seconds just to show the stack. Approximately there. That's good. Pause.

A. Yeah, that would -- that damage would corroborate coming down stern first, I think.

Q. And earlier, you said, you know, maybe starboard quarter

rolling to her starboard. Would that modify that in any way, or is that still consistent with the starboard down or starboard quarter --

A. You know, just based on my knowledge of -- from pictures and if I was watching this live, in video, I would say that that happened when she hit bottom and -- it probably happened when it hit bottom, and then she rolled to starboard and forward and -- but that damage probably happened on impact. That would be my guess. But, again, you know, I'm not an engineer.

Q. All right, that's all I have. Mr. Walsh, thank you very much.

LCDR COMERFORD: Captain.

CAPT CALLAGHAN: Thank you, Lieutenant Commander Comerford.

So just a couple quick follow-ups, Mr. Walsh.

BY CAPT CALLAGHAN:

Q. Lieutenant Commander Comerford mentioned, you know, out of respect for the families and the victims, we moved over a couple of the photos indicating where some of the victims were. But, to clarify, can you just tell us where the victims were located?

A. The -- one for sure, we -- to get to the front of the wheelhouse, the ROV driver did a pretty heroic drive through the kelp forest of crab floats to get there. And when we got to the wheelhouse windows, we could see in the wheelhouse window a survival suit with a radio cord or satellite phone cord hanging down over the top of them. And the suit appeared to have somebody

in it. But that was in the front of the wheelhouse windows. And then the second one, I want to say, port side -- through the port side wheelhouse windows and just a little further back, but the same sort of image of a full survival suit.

Q. Okay. And so was that just two, then, that you had located during the dive?

A. You know, I looked at the videos after we got back and after I'd done the report, and I think they'd actually, down on that deck where we looked at the stack damage and there's two windows there, when we were looking through those windows, we were getting a lot of reflection off the ROV lights, and we weren't able to really see in any kind of detail interior to that space, but there was also a survival suit in there. We couldn't see it with any detail to call it, you know, maybe one that was just out of a bag. But that's a potential.

Q. Thank you, sir, and I appreciate that clarification. Sir, I do want to thank you for appearing here today, and just before we close with you for the day, just want to ask, is there anything else you'd like to share that you think would be of benefit to this Marine Board for the purpose of this hearing?

A. No, I think -- I've been watching you guys, and what you're doing is very, very thorough. And obviously, the schedule, you're really covering your bases. No, I think you're doing a great job with it. And I -- there's nothing, really, that I could add to it.

Q. Thank you, sir.

CAPT CALLAGHAN: And, sir, again, I want to thank you for your time, for your patience with appearing virtually here today. At this point, you're now released as a witness in this formal hearing. Thank you for your testimony and cooperation. If I later determine that this Board needs additional information from you, we will reach out and contact you. If you have any questions about this investigation, you may contact the investigation recorder, Lieutenant Ian McPhillips. Thank you very much, sir.

THE WITNESS: Thank you.

(Witness excused.)

CAPT CALLAGHAN: So, at this time, I'd like to thank all of our witnesses today for their testimony. Again, for the record, all exhibits presented today will be posted on the MBI website and on the livestream site at a point later today.

Also to note, for the record, we do have some anticipated schedule changes tomorrow. We do know our schedule originally showed Mr. Bruce Culver appearing at 8:30 tomorrow. That has been pushed, so we will post an addition -- an updated schedule as soon as we can, and that'll be posted to the website and the livestream site, as soon as we can get that updated. Further changes will also be posted on the livestream site.

It is now 1703 on February 23rd. This hearing will now adjourn for today and resume at 0800 tomorrow, February 24th.

(Whereupon, at 5:03 p.m., the hearing was recessed.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	Marine Board of Investigation Into the Sinking of the *Scandies Rose* On December 31, 2019
PLACE:	Seattle, Washington
DATE:	February 23, 2021

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording accomplished at the hearing.

[redacted]

Jami McNear
Transcriber

[redacted]

Kimberlee Kondrat
Transcriber