United States Coast Guard

Marine Board Investigation

Commercial Fishing Vessel Destination Casualty

FORMAL HEARING

Henry M. Jackson Federal Building

915 Second Avenue

Seattle, Washington 98174

August 7, 2017 -- August 17, 2017

REPORTER'S OFFICIAL TRANSCRIPT OF PROCEEDINGS

VOLUME IX of IX

DATE TAKEN: Thursday, August 17, 2017

TIME: 0900-1140

REPORTED BY:
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**TABLE OF CONTENTS**

**P R O C E E D I N G S**

Start Time 0903

**OPENING STATEMENT**

BY CDR MULLER:

Good morning, this hearing will come to order. Today is August 17, 2017, the time is 0903. We are continuing at the Coast Guard Thirteenth District, Seattle, Washington.

I am Commander Scott Muller, of the United States Coast Guard, Chief of the Inspections and Investigations Branch, Fifth Coast Guard District, Portsmouth, Virginia. I am the Chairman of the Coast Guard Marine Board of Investigation and the presiding Officer over these proceedings.

The Commandant of the Coast Guard has convened this board under the authority of Title 46, United States Code, Section 6301 and the Title 46, Code of Federal Regulations, Part 4, to investigate the circumstances surrounding the sinking of the fishing vessel Destination, with the loss of six lives on February 11, 2017 approximately three nautical miles north of St. George Island, Alaska.

The investigation will determine as closely as possible, the factors that contributed to the incident in order to develop recommendations aimed at

preventing similar casualties. Whether there is evidence that any act of misconduct, inattention to duty, negligence, or willful violation of law on the part of any licensed or certificated person contributed to the 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.

This Marine Board is planned for at least one hearing session. The purpose of this hearing is to collect factual information. The Marine Board will use the factual information when developing its report of findings, conclusions and recommendations.

I had previously determined that the following individual is a Party-in-Interest to this investigation. Mr. David Wilson represented by Ms. Spivak of Holmes, Weddle & Barcott. This party has a direct interest in the investigation, and has demonstrated the potential for contributing significantly or otherwise enhancing the safety of life and property at sea, through their 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 to have witnesses called on

their behalf.

I will examine witnesses at this formal hearing under oath or affirmation and witnesses will be subject to federal laws and penalties governing false official statements. Witnesses who are not Parties-in-Interest may be advised by their counsel concerning their rights, however, such counsel may not examine or cross-examine other witnesses or otherwise participate.

These proceedings are open to the public and to the media. I ask for the cooperation of all persons present to minimize any disruptive influence on the proceedings in general, and on the witnesses in particular. Please turn your cell phones and other electronic devices off or to silent or vibrate mode. Please do not enter or depart the hearing room except during periods of recess. Flash photography will be permitted during this opening statement and during recess periods.

The members of the press are, of course, welcome. An area has been set aside for your use during the proceedings. The news media may question witnesses concerning the testimony they have provided here, but only after I have released them from these proceedings. I ask that any such interviews be conducted outside this room.

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 forward, but which might be of direct significance, that person is urged to bring that information to my attention by emailing, FVDestination@USCG.mil.

The Coast Guard relies on strong partnerships to execute its missions, and this Marine Board Investigation is no exception. The National Transportation Safety Board provided a representative for this hearing Mr. Michael Karr is the Investigator-in-Charge of the NTSB investigation. Mr. Karr, would you like to make a brief statement?

MR. KARR: Good morning. I am Michael Karr. I am the Investigator-in-Charge for the National Transportation Safety Board for the investigation of this accident. The NTSB has joined this hearing to avoid duplicating the development of facts. I do wish to point out that this does not preclude the NTSB from developing additional information separately from this proceeding if that becomes necessary.

At the conclusion of this hearing the NTSB

will analyze the facts of this accident and determine the probable cause, and we will do that independent of the Coast Guard.

We will issue a report of the NTSB findings, and if appropriate, the NTSB will issue recommendations to correct safety problems that we have identified during this investigation. Thank you.

CDR MULLER: Thank you Mr. Karr. We will now call our first witnesses of the day, Mr. Farrell and Mr. Mayer. Mr. Farrell and Mr. Mayer are you there on the phone?

WITNESSES: Yes.

CDR MULLER: Can you hear me clearly?

WITNESSES: Yes, sir.

CDR MULLER: Okay. And you are coming in fine. Before we begin with administering the oath, and with your presentation, and some questions I just want to give you some awareness, because you are joining us telephonically, some awareness of who we have here, present in the room.

We have myself, the chair of the Marine Board, and other members including Mr. Jim Gillette, and LCDR Mendoza. Of course, you also just heard from the NTSB, Mr. Mike Karr. We also have in the room the representative for the Party-in-Interest.

This is a public hearing and it is being recorded. Also be advised that we have a number of individuals here from the public including friends and family of the crew of the fishing vessel Destination.

I understand you are calling from Juneau, Alaska.

THE WITNESSES: Yes.

CDR MULLER: Are you in a place where you can answer our questions?

THE WITNESSES: Yes, we are.

CDR MULLER: Thank you. LCDR Mendoza, if you would, please administer the oath.

LCDR MENDOZA: Sir please stand and raise your right hand.

**EDWIN V MAYER, III**

**WES PATRICK FARRELL**

**MARINE EXCHANGE OF ALASKA**

A witness produced on call of the Coast Guard was duly sworn according to the law, was examined and testified as follows:

THE WITNESS/MR. FARRELL: This is Wes Farrell, and I do.

THE WITNESS/MR. MAYER: This is Ed Mayer, and I do, yes.

LCDR MENDOZA: Please be seated. Mr. Farrell,

could you please state your full name and spell your last name for the record?

THE WITNESS/MR. FARRELL: Wes Patrick Farrell, F-A-R-R-E-L-L.

LCDR MENDOZA: Mr. Mayer, please state your full name and spell your last name for the record.

THE WITNESS/MR. MAYER: Okay, Edwin, middle initial V as in Victor, last name Mayer, M-A-Y-E-R, III, Edwin V. Mayer, III.

LCDR MENDOZA: Mr. Farrell, could you please state your current employment and position title.

THE WITNESS/MR. FARRELL: Marine Exchange of Alaska, and my position is the Assistant Director.

LCDR MENDOZA: Mr. Mayer, would you please state your current employment and position title?

THE WITNESS/MR. MAYER: Currently employed with the Marine Exchange of Alaska, my title is technology.

LCDR MENDOZA: Mr. Farrell, do you hold any professional licenses or certificates?

THE WITNESS/MR. FARRELL: Not at the moment that are relevant to this case.

LCDR MENDOZA: Mr. Mayer, do you hold any professional licenses or certificates?

THE WITNESS/MR. MAYER: No professional

licenses, I just hold a Bachelor's Degree in Engineering Technology.

LCDR MENDOZA: Thank you both.

CDR MULLER: Gentlemen, we will now turn to Mr. Giard, who will initiate some of the questions that we have for you this morning.

**EXAMINATION**

BY MR. GIARD:

Q. Good morning Mr. Farrell, and Mr. Mayer, my name is Scott Giard and I am with the Coast Guard's Thirteenth District Incident Management Division, here in Seattle, Washington.

During your testimony please speak up and into the phone, and identify yourself so the Board and court reporter can hear and record you.

In the course of your testimony please let me know if you need any clarification or need me to re-word any line of questioning. As well, please let me know if at any time you need for any reason a recess.

Let's start with Mr. Farrell. Can you please tell the Marine Board, how long you have been with the Marine Exchange of Alaska, and what your capacity is there?

A. MR. FARRELL: I am the Assistant Director and I have been here since April of 2006, upon retiring from

the Coast Guard.

Q. And how long were you with the Coast Guard?

A. MR. FARRELL: Just shy of twenty-two years.

Q. Thank you, Mr. Mayer same question.

A. MR. MAYER: I have been with the Marine Exchange since 2010. And prior to that with Marine Electronics Service Company of Miami, Florida for fifteen years, approximately, since 1995. And I worked as a marine electronics technician prior to the Marine Exchange. And with the Marine Exchange as an engineering technologist, working on various equipment related to AIS, and also a (inaudible word) administration.

Q. Thank you. Mr. Farrell, can you tell us a little bit about the vessel trafficking or vessel tracking services that the Marine Exchange of Alaska provides?

A. MR. FARRELL: We have established an AIS, Automatic Identification System tracking network throughout Alaska, consisting of approximately 130 terrestrial based AIS receivers, meaning land-based receivers.

We back all the position reports those receivers collect to equipment here in Juneau and also a secondary server down in the Seattle area that -- we can

basically we have approximately 130 receivers throughout Alaska collecting vessel traffic information via AIS and the services that we provide.

We provide that data to our customers either via a real-time web-based display that they can log into and track vessels themselves in real-time, or we store every position report that we receive in a database for this type, more of this type of a scenario where people need data from the past to go back and see what happened in the past.

Q. Thank you. Mr. Mayer can you please describe how the Automatic Identification System or AIS works?

A. MR. MAYER: Briefly what it is, it is a VHF-based system that all vessels are required to carry. There are some exceptions.

But for the most part vessels that are equipped have this VHS radio system that communicates its relevant navigation information, such as its position, its course and speed over a VHF communications link between vessels. So it is a vessel to vessel system, and also vessel to shore. It does that, but technician power is about 12.5 watts. So it has a VHF land sat range of approximately 25 miles on average.

And the system is a time position based system, so it can -- it has a limited capacity of what

it can do (inaudible few words) the internet today. For small amounts of data it transmits on intervals depending on the vessel's speed. It is somewhat limited in bandwidth. But the data that we collect, basically a range of intervals of anywhere from a minute to down to a few seconds.

Q. Great, thank you. You mentioned that the Marine Exchange operates approximately 130 sites. Do you know if the Coast Guard or others operate AIS sites in Alaska? And approximately how many?

A. MR. FARRELL: This is Brett Farrell, I don't know, I can't answer how many the Coast Guard has, other than in the BTS (sounds like) area and Prince William Sound, the vessel traffic system in Prince William Sound, I know they have some there. And I am not sure if they have any other sites.

As far as other parties, there are some other third-parties that do have scattered receivers throughout Alaska, nothing too significant. And I don't think any in the area of interest for this vessel; I don't think there were any other third-party receivers up there. In fact, Coast Guard or third-parties, I am fairly confident there was nothing else up in that area.

Q. Can you tell us if or how other customers, like the Coast Guard, use your data?

A. MR. FARRELL: My impression of how -- I'll start with -- this is Brett Farrell again -- starting with the Coast Guard, they use it in multiple ways that I am aware of. One is we, we provide the Coast Guard with what we call a raw feed.

In other words, they are getting the feeds directly from our radios through our servers, and they get sent directly to the Coast Guard. And I know one use of that is for -- and some of this terminology may have changed over the years -- but I am under the impression that our feeds are populating the Coast Guard's Common Operational Picture display system for various command centers.

In other words, again, my impression is that they can look at their screen not have to use our web-based viewer to see current vessel traffic, or vessel positions. They receive the same feed that we collect on the -- our web-based viewer, uses the display vessel positions. That's one use that I -- that I am aware of.

The Coast Guard also has access to our web-based display system as well. I don't know that it shows anything that their Common Operational Picture shows or not, because I assume those, that comm has other inputs to do it as well.

So that's my impression of what the Coast

Guard is doing with it. And the, I assume they are using it for search and rescue purposes, or analysis. We occasionally get calls like which lead to this, asking for historical data. It seems like; sometimes it is easier for us to pull historical data directly from our database, than it is to get it out of wherever the Coast Guard stores it.

So we do get occasional calls from the Coast Guard regarding historical data, not only for incidents such as this, but just for general traffic analysis, port studies and things like that.

Third parties, other parties that use it other than Coast Guard, we charge -- make up our client base. Would be the maritime industry, basically the companies or the individuals that own vessels, that want to keep an eye on -- you know, track their vessels.

Other regulatory agencies use it for regulatory purposes. And I guess that's about it. There is, we don't really market it, or provide it to hobbyists, or anything like that that just like watching vessel traffic on a computer. It is either industry or regulatory agencies, Coast Guard.

Q. Great, thank you very much. Can you briefly describe the difference between terrestrial AIS and satellite AIS?

A. MR. FARRELL: If it is okay with you, I will defer that to Ed Mayer, he would give a much better description, I think, of that, other than the obvious. But would that be okay if I deferred that to Ed Mayer?

Q. Yes, thank you.

A. MR. MAYER: The difference is really the reference to how the signals are received. All AIS is, are transmitted by vessels, or by shore (inaudible word). We use the term terrestrial to indicate that we received the signal or a transmission from a vessel with a receiver that is based on land.

And a satellite reference would mean that the transmission from the vessel was picked up by a satellite that was passing by and then routed it over the internet back to our servers.

Q. Great, thank you. Does the Marine Exchange of Alaska actively monitor vessel tracks?

A. MR. FARRELL: This is Brett Farrell. In some cases we do actively monitor vessel traffic, primarily in the -- on the great circle around the vicinity of the Aleutian Islands, and primarily large commercial vessels.

Very recently there has been routing measures implemented for an alternative planning criteria program where we have a contract to monitor certain vessels that

are enrolled in the program. So, that's the extent of our active monitoring.

Granted, we are -- we have a twenty-four hour operation center with watchstanders that are looking at screens all the time. So we occasionally spot anomalies and strange things. But in most cases, we are not in a role to actively monitor, with the exception of those commercial vessels that I just talked about that are enrolled in a specific alternative planning criteria program.

Q. Thank you. You briefly described instances of the Coast Guard calling to consult on getting historical data analysis. Did the Coast Guard consult with the Marine Exchange of Alaska on the case involving the sinking of the fishing vessel Destination in February 2017?

A. MR. FARRELL: This is Brett Farrell. Yes, I don't recall any exact dates, and my recollection is that it was Scott Wilmer with the Seventeenth District Commercial Fishing Vessel Program. And I, and my recollection is he called and asked if we had any data showing, he gave me a timeframe and if we had data. And it sounded like it was a very preliminary part of the investigation, right at the -- I don't even know if it could be considered part of the investigation, maybe it

was. But, it seemed like it was really early on.

And we ran a quick historical replay of, you know, based on the date and time that we were given, and that's basically what led to the animation that apparently you have in front of you, or that you will be showing. That four minute block of historical data that is animated to kind of show what we saw, or what our system collected in about a four minute timeframe around the date that Scott asked for.

Q. Thank you. I would like to now present Exhibit 16. Exhibit No. 16 is a video provided by the Marine Exchange of Alaska of the last four minutes of AIS data from the fishing vessel Destination on the 11th of February, 2017.

I'd like to watch the video in its entirety and then ask a few questions about it.

(Playing AIS simulation video in open court 9:26 - 9:27:13.)

Q. Okay, now watched the video in its entirety, it is approximately one minute long, and shows the last four minutes. Would you say that the vessel, the video is sped up by four times?

A. MR. FARRELL: This is Brett Farrell. I would agree with that, it is compressed.

Q. Okay. And can you just briefly describe, just

in general what we are seeing in the video.

A. MR. FARRELL: This is Brett Farrell. What you are seeing is on that track line that appears in the video you will see those little dots along the track line, each one of those dots represents a specific position report we received from the vessel.

And then the system is rendering, based on those -- each of those position reports contains quite a bit of information, it's not just a position. It contains force over ground, speed over ground, heading, and various other information.

So what the -- what you are seeing is the system taking all of the information that it received at each one of those points along the track line. And displaying the, basically, the shape of the vessel is based on the dimensions that it, that it was transmitting, or the measurements, it is a little more complicated than that.

But the vessel transmits the information that the system can use to calculate its dimensions, which is how it basically draws that polygon shape that is hopefully, proportional to the vessel's actual dimensions. I say hopefully, because sometimes it relies on whoever installed the system to get those dimensions transmitted correctly. But this one looks

pretty -- I don't see any problems with this one. So it looks like it was probably programmed correctly.

But anyway, the -- this entire video is just the -- an animated version of the system using the data that the vessel has transmitted at each one of those points and displaying it on the screen as to the actual orientation and movement of the vessel based on the information that was received at each of those points.

Q. Great, thank you. Can you tell us what you think is happening after the vessel starts making the starboard turn, just after the first, kind of three data points, and then starts to turn even harder to starboard?

A. MR. FARRELL: Obviously, I can't tell you exactly what's happening other than in this last four minutes, I guess maybe an easier way to answer this would be I have data in front of me the last hour leading up to this four minutes. And until approximately six o'clock in the morning, the vessel appeared to be on a fairly steady heading, and fairly steady speed, and course.

And it is about where this video starts, actually, about six o'clock in the morning, the -- we start seeing reduction in speed. But course and heading still remained fairly steady as it had been over the

past hour.

But, where this video starts, is where we start seeing more drastic changes in heading, and in course, at the early part of this video. And then at some point when you see the vessel start to, basically, rotate to the right, or to starboard if you look at the actual data on this, it would show you exactly what you were seeing on the screen. Is that at that point, the course and the heading start separating from each other.

Whereas normally, you know, there's always -- there is always set and drift where the course and heading are rarely identical to each other. But, at the point on this video where the vessel starts turning, it is kind of maintaining a course, a northerly course. But its heading starts separating from the course.

Meaning the vessel is rotating, or turning on its axis, or you know, the heading is separating from the course. Meaning the vessel's, the overall direction of the vessel is going one direction, while the bow of the vessel is starting to go a different direction.

I guess that's the best I can answer on that. I don't, obviously, I have no idea what was causing that but that's what it was transmitting, that the heading started separating from the course. Meaning the vessel was turning.

And as you can, hopefully, see in the video it was, you know, it was fairly quick, but you could see the speed was reducing throughout the duration of that video. So the vessel was getting slower and slower, and rotating at the same time. Still kind of maintaining a northerly course though, regardless of which direction the vessel was actually heading, the vessel itself was, still had some northward movement.

Q. Great, thank you very much. Can you speak to -- so the red dot on the screen says in the key, lost signal, when an AIS signal is lost, can you just tell us a few examples of why that might happen?

A. MR. FARRELL: This is Brett Farrell. We have no idea at this end -- in this case, the last position we received was that, it was time-stamped as 061404 Alaska local time, and that was just -- it is really, for us it is as simple as that. That's where our database ends, that's the last position report we received.

Q. Thank you. Mr. Farrell and Mr. Mayer, those are all the questions that I have.

MR. GIARD: Commander Muller, I have no further questions.

CDR MULLER: Thank you Mr. Giard. Mr. Farrell, Mr. Mayer, this is Commander Muller, I have one

or two follow-up questions.

**EXAMINATION**

BY CDR MULLER:

Q. Can you briefly describe -- well let me ask it this way, earlier you mentioned that AIS is essentially a transponder system that transmits, I think vital, or critical, or established navigation information such as course, heading, speed, position.

So, is that information coming from the antenna itself, or from other equipment on board the vessel, like the GPS?

A. MR. MAYER: This is Ed Mayer. The actual VHF transmission occurs, of course is a RF radio frequency transmission from an antenna, that helps radiate that energy from the radio or the transponder. But the transponder is dependent upon external equipment that is connected to it. Meaning, the vessel's GPS is really the primary piece of equipment.

That the AIS needs, it is where the position information comes from, that's fed into this transponder system. And there is (inaudible word) sensors can also be connected. The next most important is typically the headings sensor, which can either be a gyro-compass or a (inaudible word) magnetic type compass.

Typically on a smaller vessel you might have a

magnetic compass, I'm not sure what this vessel had. We cannot tell by the data what type of compass was on board. We just see them giving rough heading information we received. So, I think that information definitely came from an external (inaudible word).

There really aren't any indications that there is a rig turn (sounds like) indicator connected. But that's another type of sensor that would be external to the actual AIS. And also a speed sensor can also be connected. That's it usually, for external sensors, that would be it for those.

Q. Okay, thank you. So I, understanding that -- so when an AIS stops transmitting, so understanding that the data that AIS is transmitting could -- comes from external sensors -- so would it be difficult to answer why the AIS stopped transmitting? It -- in other words it is, it may not just be as simple that, let's say the transmitter antenna dipped, you know, below the water surface, or could it also be from a power outage to the equipment?

A. MR. MAYER: This is Ed Mayer. Yes, the transponder, or system would continue to transmit as long as the antenna was in free open air and that it had power, and connection to all of its sensors. If it were to lose power it would stop transmitting a signal. If

the antenna was broken off, or the cable was broken going to the antenna it would stop transmitting. Those are the only things really that can cause us to not receive the signal.

Q. Thank you. That's all the questions I have.

CDR MULLER: Mr. Gillette?

MR. GILLETTE: Commander I have no follow-up questions.

CDR MULLER: Thank you. Mr. Karr, NTSB?

**EXAMINATION**

BY MR. KARR:

Q. Mr. Farrell this is Michael Karr of the NTSB.

A. MR. FARRELL: Good morning.

Q. Does your AIS coverage cover all of the Bering Sea?

A. MR. FARRELL: Terrestrial coverage doesn't, like Mr. Mayer said the -- we are bound by the laws of VHF. He mentioned that, you know, generally you would expect VHF line of sight to be approximately twenty-five miles. We seem to exceed that rule from time to time based on the atmosphere, height of antennas, and height of antenna on both the vessel and the -- and our receivers.

So, to answer your question, no we do not have terrestrial coverage of the entire Bering Sea. In this

case we do have, I believe, two receivers on St. George Island to the proximity of this vessel to St. George Island, I am comfortable that we absolutely have reliable, full coverage where it appears this incident took place. I don't think we missed much, if any, position reports.

Q. How about satellite coverage, do you have satellite coverage in the Bering Sea more than twenty-five miles away from the islands?

A. MR. FARRELL: This is Brett Farrell. Yes, we do, we have access to a third-party satellite AIS system. As far as what we have available to us using that third-party, it basically covers from the Washington/Oregon border all the way to throughout the Arctic, and all the way over to Asia.

So if you can kind of visualize that type of an area. And there are no limitations from shore on that, it is full coverage. It is just the -- the only -- the difference is is that we, to date, we don't see the same type of resolution as far as the number of position reports that we received from the vessels is less using satellite receivers than it is with the terrestrial receivers.

And that's, Mr. Mayer, his earlier testimony kind of addressed why that is. We have to wait for the

satellite to pass, we have to wait for the satellite to get within view of an earth station. There is some built-in latency on the satellites at the moment, anyway.

Q. And how many watchstanders do you have?

A. MR. FARRELL: We have --

Q. For each?

A. MR. FARRELL: -- three watchstanders on staff at any given time. One is always -- we have one person always, twenty-four hours a day on watch, and two during the day.

Q. Is one considered a supervisor?

A. MR. FARRELL: During the day, yes.

Q. And currently do you have any working relationships for providing these services to the crab boat fleet?

A. MR. FARRELL: We provide services to various fishing fleets, various fishing companies, many of which are crabbers. But yes, we provide vessels -- when I spoke earlier about some of our products as far as our web-based display, they are -- we have several fishing companies as clients that access and track their vessels using our display and our -- and in those cases, and in many cases, we are able to incorporate their Vessel Monitoring System or VMS.

Which is a completely separate tracking system, satellite based, and it is a requirement for certain fisheries by the National Marine Fishery Service, or NOAA. And we are able, for the -- many of the fishing company clients that we have, when they get our web-based display, we are able to incorporate their VMS reports into our display as well.

So they get kind of a hybrid system. They get to -- they will see their vessel whether it is being picked up by one of our terrestrial receivers via their AIS unit, and/or if they are out at sea and beyond our terrestrial range, their VMS position reports will show on their screen. And in some cases they will subscribe to the satellite feed as well. To where then, even when they are beyond range of our terrestrial coverage, the satellite will pick up their AIS position reports and display them as well.

Q. Thank you Mr. Farrell.

CDR MULLER: Thank you Mr. Karr. Ms. Spivak do you have any follow-up questions?

MS. SPIVAK: No questions, thank you.

CDR MULLER: Thank you. Well thank you Mr. Farrell, Mr. Mayer this is Commander Muller. That concludes the questions that we have for you this morning. Before I release you as a witness, are there

any other elements that you think the Board should consider? Perhaps issues that we did not raise this morning?

MR. FARRELL: I think one recommendation I've had is, if you don't have it available to you from other sources, primarily meaning Coast Guard, we'd be happy to provide the actual data, because I don't recall providing that. I think all I provided so far to the Coast Guard was the video that you saw, which is the animation of actual data.

So, I think it would be helpful if you had the actual data in front of you. I think it helps paint the picture. Especially going back and seeing, you know, prior to that last four minutes. And we would be happy to work with the Board on that, providing whatever information to help fill any gaps that you might have.

CDR MULLER: Thank you Mr. Farrell, this is Commander Muller, yes actually we have that data. It is about four spreadsheets long of data. I think it was, if memory serves, starting from around the 7th or 8th of February. Starting from Sand Point, King's Cove, to Dutch Harbor, and eventually to St. George. I don't recall exactly how I obtained that. I think it was via email through some of our initial investigative efforts conducted by Sector Anchorage.

MR. FARRELL: And that rings a bell now when you mention Sand Point that rings a bell -- we may very well have provided that. I, unfortunately I have been having some email archive issues lately, and I went back in preparation for this to see what I actually sent the Coast Guard back in February. And couldn't determine that.

So that now, that does kind of ring a bell. So we may have already provided it. That sounds like we probably did already provide that data. So that's good.

CDR MULLER: Yes, concur.

MR. FARRELL: But we can have -- provide, as the investigation continues, any follow-up questions, additional data we would be happy to provide it or answer any questions in the future.

CDR MULLER: Thank you, sir. Anything further?

MR. FARRELL: Just on behalf of the Marine Exchange, we would like to express our condolences to the family and friends of the Destination, and we wish the Board luck, in hopefully determining what happened.

CDR MULLER: Thank you. You are now released as a witness to this Marine Board Investigation, thank you for your testimony and cooperation. If I later determine that this Board needs additional information

from you we will contact you.

If you have any questions, regarding this investigation, please feel free to contact the Marine Board Recorder, LCDR Pedro Mendoza.

MR. FARRELL: Will do, thank you.

CDR MULLER: Thank you. Good day now.

MR. FARRELL: Good day.

CDR MULLER: We will now take a fifteen minute recess.

(Whereupon a short recess was taken.)

CDR MULLER: Good morning again. Good morning, this hearing will come to order. We would like to call our next witness Commander Van Waes. LDCR Mendoza, if you would, please administer the oath.

LCDR MENDOZA: Please stand and raise your right hand.

**WITNESS**

**COMMANDER MARK VAN WAES**

**NATIONAL OCEANIC & ATMOSPHERIC ASSOCIATION**

A witness produced on call of the Coast Guard was duly sworn according to the law, was examined and testified as follows:

THE WITNESS: I do.

LCDR MENDOZA: Please be seated. Please if you could please state your full name, rank, and spell

your last name for the record.

THE WITNESS: Certainly, it is Commander Mark Van Waes, V-A-N W-A-E-S.

LCDR MENDOZA: Could you please state your current employment and position title.

THE WITNESS: I am currently employed with NOAA, the National Oceanic and Atmospheric Administration. I am a commander in the NOAA Commission Corps. I am the Commanding Officer of the NOAA ship, Fairweather.

LCDR MENDOZA: Sir, do you hold any professional licenses or certificates?

THE WITNESS: None that are germane to this proceeding.

LCDR MENDOZA: Thank you sir.

CDR MULLER: So good morning Commander. On behalf of the Coast Guard, and particularly this Marine Board I want to just take a quick opportunity to thank NOAA, and in particular the NOAA ships Oscar Dyson, and your vessel the Fairweather in their support and efforts, contributions to this investigation.

So several months ago I reached out to NOAA and they gracefully accepted our request to, for NOAA to arrive on the last known position on the fishing vessel Destination and conduct survey work to help locate the

vessel. So, again, thank you.

So with that, I understand you have a PowerPoint presentation.

THE WITNESS: Yes, I do.

**PRESENTATION**

BY COMMANDER VAN WAES:

Morning ladies and gentlemen, again I am Commander Mark Van Waes, the Commanding Officer of the NOAA Ship Fairweather. I will be briefing the work that we conducted, that NOAA conducted in response to the request from the Coast Guard to investigate the disappearance of the fishing vessel Destination.

I would like to start briefly with an overview of NOAA as an agency. The National Oceanic and Atmospheric Administration is a science based agency under the Department of Commerce, dedicated to studying preserving, and stewarding the nation's oceans, coasts, and skies.

Indeed, NOAA's mission spans from the surface of the sun to the depths of the ocean. NOAA generates tremendous value for the nation and the world by advancing our understanding of, and ability to anticipate changes in the earth's environment, by improving society's ability to make scientifically informed decisions, and by conserving and managing

ocean, coastal, and Great Lakes resources.

NOAA is composed of six line offices and a number of staff offices. The -- each office contributes to the overall mission of NOAA. For the purposes of this discussion, the Office of Marine and Aviation Operations is the office, the line office for NOAA that worked most closely with the Coast Guard and which we will be focusing on.

NOAA's Office of Marine and Aviation Operations, operates and maintains NOAA's fleet of research ships and aircraft. We provide platforms and expertise for the acquisition of environmental information vital to the ongoing prosperity and security of the nation.

NOAA has sixteen research ships that conduct various types of research in our coastal and ocean waters, from oceanographic data, marine mammal assessments, fisheries assessments, sea floor mapping activities, and other work.

NOAA's nine specialized aircraft collect data that help study climate change, assess marine mammal populations, survey coastal erosion, investigate oil spills, respond to and study hurricanes and improving winter weather forecasts.

Platforms are located all around the country.

AMAO's Marine Operation's Headquarters is based in Newport, Oregon though our ships are stationed on all of our coasts. And the aircraft operations center is based in Lakeland, Florida.

NOAA and the Coast Guard have a long history of close partnership. We have worked together for hundreds of years, actually, with our predecessor agencies, to ensure the nation's maritime resiliency, environmental sustainability, and environmental research.

We work together closely on such topics as oil spill response, and marine debris removal, safety of navigation, scientific data acquisition, maritime domain awareness, and joint training. In fact, the officers of the NOAA Corps, the Commission Corps of NOAA trained with the officer candidates at the Coast Guard Officer Candidate School, at the Coast Guard Academy.

This training has already, though it is only a few years since that began, it has already boosted our partnership with improved knowledge and understanding between the two services.

Per the Coast Guard request in March 2017, OMAO offered the services of two ships, the Oscar Dyson and the Fairweather in locating the Destination.

NOAA's actually assisted many times in the

past with searches for missing vessels and aircraft including among others the location of John F. Kennedy, Jr.'s plane and the wreckage of the TWA 800 flight.

To begin with, I'd like to, as far as talking about NOAA's search effort, I'd like to discuss the technology that we used in broad strokes, I'll try not to get too technical. But please ask if there are any questions about the technology please feel free to ask. Our primary method of acquiring data is called multibeam sonar. It ensonifies a swath of the sea floor, and depending on the frequency of the sonar system, and the depth of the water, and other considerations, it can resolve objects that can be as small as a meter or less.

Generally speaking, the procedure is to, what we call, mow the lawn where we systematically make passes with overlapping data to ensure full coverage of the sea floor area that it being investigated.

This video just gives a visualization of how the ship proceeds along on its track line ensonifying the sea floor and recording the data. As you can see here, the deeper areas are the dark, generally speaking the darker colors, whereas, the red areas are the more shallow depths.

From this multibeam sonar data we generate a 3D model of the sea floor. Wrecks and obstructions,

other objects can be detected and examined as we process the data once it has been brought back on board. This image here, is an example of what a wreck might look like on the bottom. It is not always immediately discernable as a vessel depending on the status of the vessel. But it is usually, does usually stand out from natural features.

Additionally we may use what's called Sidescan Sonar. And this is a system that provides imagery, but not really depth data for the bottom. It uses sonar similar to the multibeam in that it sends out a sound pulse through the water and measures the return. But what it is primarily doing is looking further off to the side, getting a wider swath of coverage, and allowing us to see if there is something rising from the sea floor.

We can determine the size and height of objects from the data, the image on the screen here is an example of what a wreck might look like. In fact, this, I believe, is the wreck of the Monitor.

As previously mentioned, NOAA offered the use of two of its vessels to search for the Destination. The NOAA ship Oscar Dyson is a fisheries research vessel based in Kodiak, Alaska. Its primary mission is to conduct fisheries research, stock assessments, habitat mapping for our sustainable fisheries work. It is set

up to trawl, catch fish to examine -- to do the assessments, as well as to do acoustic fisheries research.

Onboard the ship they have two echosounders a Simrad ME70 multibeam echosounder which is similar to those that are used for sea floor mapping, but somewhat different. And a Simrad EK60 echosounder.

In the course of this investigation the ME70 echosounder was the one that was used. And these echosounders are a bit different from the ones we use for hydrographic surveying and sea floor mapping in that they are specifically designed and tuned for investigating and detecting biomass in the water column. That is to say, fish and schools of fish for stock assessments. The can be used for bathymetric, or sea floor mapping, but that is not what they are specifically designed to do.

The Dyson, however, was going to be working in the area where the Destination was lost earlier in the summer than Fairweather was going to be there, and so we sent the Dyson to go and investigate first.

The initial plan was to begin searching near and around the last known location, AIS location of the Destination. The vessel set up a grid, a line plan as we call it, and proceeded to acquire data

systematically, as I said, mowing the lawn, approximately 200 meter line spacing surveying at about eight knots. They began the search near the last known location and systematically worked out from there.

Overall they covered a fair amount of area for reference, from the southwest extent to the northeast extent along this edge of the data, that's approximately 6.7 nautical miles. They worked on the area that they had originally planned, they then moved a little bit to the west, and a bit to the north as well. During the course of their investigation they were unable to determine whether the Destination was present in the data.

As I said before, the system is not specifically designed for this type of work, although it is usable for it. There was a fair amount of noise in the data. And it is not entirely certain whether or not had they transited over the location of the Destination that they would have found, that they would have noted it. I think they would have, or at least they would have been a return that was worthy of further investigation. But they did not see it in the data that they acquired.

A little bit later in the summer, the NOAA ship Fairweather, my vessel, was scheduled to be

transiting past the area to go conduct our mapping work up north near Nome. Fairweather is a hydrographic survey vessel, that is our mission. We are home ported in Ketchikan. Alaska. And our primary purpose is to conduct hydrographic surveys and to conduct sea floor mapping in Alaska and the west coast of the United States. This is bread and butter, it is what we do.

The Fairweather is outfitted with four 28' survey launches, that collect the majority of our data. On board each of those launches is a multibeam sonar, a high resolution multibeam sonar, a 2040 echosounder. In addition to that, the ship carries, or has installed an EM710 Echosounder which is for slightly deeper water than the launches can acquire data in. But is usable in shallower water as well as long as it is safe for the ship to navigate.

We arrived on July 8th, at approximately noon, and commenced our work in the area. Based on the information that we had from the Coast Guard along with the data collected by the Dyson, we established a search area that we thought had a high likelihood of finding the location of the Destination.

Based on the prevailing currents, which are the green arrows on the screen, around St. George Island being a clockwise current up to about a knot and a half.

Based on the weather reports from the night in question in February, prevailing from the northeast. And based on the AIS position, last known AIS position, and the positions of confirmed EPIRB hits, and the discovery of a life ring, and where the EPIRB was eventually found, we established this orange area as the primary search area.

And you will notice that that includes a fair amount of the Dyson data as well. Again, the data acquired from the Dyson was certainly useful, but not necessarily conclusive. And we wanted to make sure that we didn't miss something, so we did reacquire data over a portion of the area.

That allowed us a couple of things, one to verify whether there was or was not a target of interest in that area, but also to compare our data with theirs, and give us a better idea of what, you know, what we could really expect from the Dyson's data.

The area in blue and green is the totality of what the Fairweather collected, almost, actually there is some data that is not quite on here. We initially started as the Dyson did, in the vicinity of where the last known AIS position was. Running systematically, lines northeast and southwest. And these are, these lines on here are illustrative, they are not the actual

lines we ran.

We then moved to the east, and ran east west, and worked our way to the south. It was our expectation based on the information that we had, that the vessel would have moved to the east, not the west. And either to the north or to the south, based on the prevailing currents, and the winds and seas. We thought it, at first, that it would more likely have moved to the east and south, which is why we shifted to the east-west lines moving south towards the island.

Additionally, the weather was good enough to deploy a launch, we moved in closer to the shore and deployed one of our launches to do some work close in to shore given that the EPIRB was found down there, and the life ring was found in that direction, we thought perhaps the vessel could have drifted that direction and gotten close to shore.

While the launch was -- in that investigation the ship returned to the north and started investigating to the north, at which point we located a target on the bottom that matched size and description of the Destination.

I will, I would like to note that it is just barely outside of the Dyson's coverage, so unfortunately we won't know whether or not the Dyson could have

detected it at this point.

The vessel, itself, is lying on its port side, facing to the southwest in approximately 78 meters, or 256 feet of water. There is a scour line that extends to the southwest from where the bow of the vessel is at approximately 100 meters or 330 feet.

This is a view of the data, this a view of the data from above, where it is fairly clear if you are familiar with interpreting this data that you have the stern of the vessel here, and the after deck, the bow, including the bulbous bow, the house, and the mast. There appears to be gear stacked up mid-ship. And there is even, you can make out the deck crane in the data as well.

This is a view from the south, again, you can very clearly see that it is a vessel resting on its port side, with the bow, and the house, the mast, and the mid-ship's gear, and the crane, along with the starboard side facing up, and the stern here.

Viewing it from the west, again, the bow, and the bulbous bow, the house and the mast, and the skeg along the keel of the vessel, and possibly the rudder, and the starboard side of the vessel, again facing up.

Now static images are all well and good, but it is much easier to visualize these in 3D if it is

moving. And as you can see the skeg and the hull, the starboard side, bulbous bow, you have the bow, and the house, the mast extending up. And the house and the mast, what appears to be the mid-ship's gear, and the crane, the working deck aft, which appears to be clear, and the stern of the vessel. And again, the clear aft deck, the deck crane, the stern, the skeg underneath here. And back to the start.

In addition to the vessel, itself, another target was identified approximately 617 meters to the southwest of the vessel. The dimensions, and visualization of the target approximately match what I understand to have been the, would have been the crab pots, the gear that was affixed to the aft deck of the vessel. My understanding is that when the vessel departed Dutch Harbor, it was fully loaded with crab pots.

From the data, it appears that there is only about half of the load currently on the vessel. Given the direction of motion from the last known position to where the Destination was located, this is more or less along that path, and a little bit slightly towards the last known position. So, if this is, in fact, the missing gear, then it would make sense, the location of it makes sense given the motion of the vessel.

In summary here off of the northwest coast of St. George Island, the last known position of the Destination by AIS, the vessel was located approximately 2.3 nautical miles to the northeast. And there is, nearby, what appears to be potentially some of the missing gear from the vessel.

That's all that I have specifically to present. If there are any questions I would be most happy to take.

CDR MULLER: Thank you.

**EXAMINATION**

BY CDR MULLER:

Q. If you would, can I take a look at slide 25?

A. Certainly.

(Brings up slide on screen.)

Q. So when I looked at this slide, when I first saw it, and I wanted to take the opportunity just to confirm for the record. Although looking at the other slides I think I have a stronger appreciation now about the image. But so if you were to look on the aft deck, the main deck behind -- correct, there is that dark spot.

A. Um-hmm.

Q. So my initial thought or impression was perhaps, perhaps there was a, the image was showing

missing hatch cover.

A. Um-hmm.

Q. But then can you explain if the data would indeed indicate that? Or is there any kind of limitations with the data when we take a look at images like this.

A. Certainly. I think perhaps that if we look at the video, it might make it a little bit more clear. Perhaps not.

What you are seeing here, the gaps -- the alleged gaps in the data on the deck may or may not indicate that there is an opening in the deck. The geometry of the data collection, where the vessel, the data collecting vessel is transiting above on the surface, and transmitting sound down to the bottom and recording the return is such that not every part of an object, a rock, a rack, an obstruction is necessarily fully ensonified.

There may be shadowing, there may be false returns. In an area such as this there is a relatively soft bottom, and a vessel lying on the bottom made of steel is a very hard surface. There may be multiple echoes that come back to the vessel collecting the data.

There may also be what are referred to as side load artifacts. It is a very technical aspect of sonar

that I won't get into, but it can cause returns in the data, that are not necessarily completely representative of what is there. We, or the technology tends to minimize those artifacts. But again, in some situations it can't totally correct for that.

The operations officer on board Fairweather took a very close look at the data, both the bathymetric data, and what is called water column data that was collected and we feel fairly confident that what you are referring to as these gaps in the data along the aft deck are not real gaps.

So, I would say it's, while it is not conclusive either way, I think I would caution against interpreting the data to indicate that there is any kind of sizable opening on the aft deck.

Q. Thank you.

A. Um-hmm.

CDR MULLER: I have no further questions. Mr. Gillette?

MR. GILLETTE: Commander I have no follow-up questions.

CDR MULLER: Thank you. Mr. Karr?

MR. KARR: Commander, I have no follow-up questions.

CDR MULLER: Thank you. Ms. Spivak?

MS. SPIVAK: No questions, thank you.

CDR MULLER: All right, thank you. So Commander, this concludes the questions, and I guess the presentation for today. So before I release you, are there any other factors that you believe the Board should take into consideration as we move forward with our investigation that may not have been discussed?

THE WITNESS/COMMANDER VAN WAES: No, but if I may, I would like to say something. I understand that there are families and loved ones here, at the hearing. And as a mariner who spent the majority of seagoing career sailing the waters of Alaska, I have a personal understanding of the risks involved in sailing in those waters. The possibility of not -- of going to sea and not returning home is one that is -- we try not to think about but is ever-present in our minds.

To the families of the crew of the fishing vessel Destination and on behalf of NOAA, and the crew and the officers of the Fairweather I just would like to extend my heartfelt, and most sincere condolences for your loss. May those who were lost rest in peace, and may you find comfort in this very difficult time. Thank you.

CDR MULLER: Thank you. You are now released as a witness at this Marine Board Investigation.

Certainly thank you and NOAA for your testimony and collaboration. If I later determine that this Board needs additional information we will contact you. If you have any questions regarding our investigation please feel free to contact us.

THE WITNESS/CDR VAN WAES: Yes sir.

CDR MULLER: Thank you. We will now take a fifteen minute recess.

(Whereupon a fifteen minute recess was taken.)

CDR MULLER: Good morning. This hearing will come to order. We would like to call our next witnesses. Chief Warrant Officer Erwin, and Petty Officer Dutton. Please approach the witness table and LCDR Mendoza will administer the oath.

LCDR MENDOZA: Please stand and raise your right hand.

**WITNESS**

**CHIEF WARRANT OFFICER JOSEPH ERWIN**

**PETTY OFFICER RICHARD ANDREW DUTTON**

A witness produced on call of the Coast Guard was duly sworn according to the law, was examined and testified as follows:

THE WITNESS/CWO ERWIN: I, Chief Warrant Officer Erwin do.

THE WITNESS/PO DUTTON: I, MD1 Dutton,

Richard, do.

LCDR MENDOZA: Please be seated. Chief Warrant Officer Erwin, please state your full name, rank, and spell your last name for the record.

THE WITNESS/CWO ERWIN: Chief Warrant Officer 2 Joseph Erwin, E-R-W-I-N.

LCDR MENDOZA: Would you please state your current employment and position title.

THE WITNESS/CWO ERWIN: I am the United States Coast Guard Diving Force manager.

LCDR MENDOZA: Do you hold any professional licenses or certificates?

THE WITNESS/CWO ERWIN: None Relevant.

Q. Petty Officer Dutton please state your full name, rank, and spell your last name for the record.

THE WITNESS/PO DUTTON: Richard Andrew Dutton, D-U-T-T-O-N, rank Petty Officer First Class.

Q. Please state your current employment and position title.

THE WITNESS/PO DUTTON: Navy diver, currently stationed as Puget Sound Naval Shipyard and Intermediate Maintenance Facility located in Bangor, Washington.

Q. Do you hold any professional licenses or certificates?

THE WITNESS/PO DUTTON: The only certificate I hold would be the ROV operator, which I was on this mission.

LCDR MENDOZA: Thank you both.

CDR MULLER: CWO Erwin, Petty Officer Dutton welcome. Thank you for, certainly your participation today at this hearing. And especially thank you for your efforts, your guidance, and you professionalism in carrying out your ROV survey work on the fishing vessel Destination.

On behalf of the Marine Board we appreciate those efforts, and that kind of information is certainly very helpful as we move forward.

So with that, I understand you have a PowerPoint Presentation?

THE WITNESS/CWO ERWIN: Yes, I do, Commander.

CDR MULLER: All right.

THE WITNESS/CWO ERWIN: Ready?

CDR MULLER: Yes, after you.

**PRESENTATION**

BY THE WITNESS/CWO ERWIN:

All right good morning, this is a PowerPoint Presentation of our expedition to locate and positively identify the fishing vessel Destination. Thanks a lot to NOAA and the commanding officer that just spoke for

locating the potential target for us, that took a load off for us. (Next slide.)

Just to give everybody a timeline in February 2017 Commandant requested support from the U.S. Coast Guard Dive Program to locate, and positively identify, and investigate the fishing vessel Destination. This was before NOAA located it with their underwater topographical survey.

May 2017 USCG Cutter Healy was going to the Artic, and it became a vessel of opportunity to the Marine Board for us to operate off of, and to be in the vicinity of the potential location of the Destination.

We did a joint cruise for diving with research and development center and the Coast Guard Cutter Healy. We had Navy Divers aboard and U.S. Coast Guard divers aboard, so there was definitely a plethora of knowledge on that vessel.

July 2017, District 17 provided a tentative Con Op for a return trip in conjunction with this Healy trip for us to return to the scene via Coast Guard Cutter Hickory in September. That is still on the table. And then July 2017, the NOAA research vessel Fairweather locates probable fishing vessel Destination location on the sea floor.

August 2017 Healy arrives on scene with the

dive team, conducts our exhibit that we are about to present, and then again, in September, we have pending trips on the docket. (Next slide.)

Just a little quick tidbit on Coast Guard dive capabilities, we have Scuba diving capabilities, surface supply diving capabilities, we can go to depths of 190 feet, penetrating close spaces, remote operated vehicles, handheld sonars, tow behind sonars, metal detectors, contaminated water diving, light salvage. We do specialize in cold water/ice diving. And we are subject matter experts for commercial dive operations. (Next slide.)

Surrounding this mission, again, primary mission was to support Coast Guard Cutter Healy. We did an add-on mission with the Marine Board of Investigation to search for the fishing vessel Destination. They were able to allocate 02 days for this operation.

With the information that NOAA provided, we were able to get on scene with the target. We had environmental considerations here. There was poor visibility under water, high currents 1 to 4 knots topside, and under water, and surface weather was 20 knot winds, 5 to 7 foot seas. I will go ahead and defer to MD1 for on scene weather to confirm this.

THE WITNESS/PO DUTTON: All information

provided is correct. Once we were unable to deploy the ROV from the small boat, we moved back to Coast Guard Cutter Healy.

Once on scene and on station we -- being anchored off of the Healy. Weather conditions were around 10 to 15 knots, with 4 to 5 foot seas, noticeable topside current, as well as bottom current roughly, not to exceed 3 knots.

THE WITNESS/CWO ERWIN: Again those -- we had some challenging conditions, and minimal operations dates to allot to this expedition to locate the Destination. (Go ahead, next slide.)

Here we go, we have remote operated vehicle pictures, this looks to be a debris field from Destination circled in orange. (Next slide.)

Here we go, we've got the ROV with the draft marks on the suspected Destination. (Next slide.)

And then, we are considering this pretty much positive identification. We got a D-E-S, I know it is difficult to see, circled there, for Destination. (Next slide)

We have scuppers, we got pictures from. (Next slide).

And then some rigging. (Next slide)

And you have got the rails. (Next slide)

The boat was also able to drag and retrieve a crab pot. (Next slide)

And we weighed that crab pot, it came in at 880 pounds. (Next slide)

Okay. Go ahead and close it out. And just to highlight the challenges we had to using the ROV, I know we didn't get great pics in time on scene. Weather challenges were difficult, I will let MD1 highlight it a little bit more. But we were able to get those pictures for you, with the minimum time we had, and the environmental challenges. Anything to add?

THE WITNESS/PO DUTTON: The only thing I would like to add is, and given the depth of water, and the training that you are given in order to operate in high current, high sea state requires you to rig a system on board the tether for the ROV. In doing so you attach a clump to the tether line, which then sinks to the bottom. Then you have a specified amount out, that the ROV operates off of.

So, we were kind of going off of Coast Guard Cutter Healy being moored 300 feet away from suspected target. So we gauged it off of that. And then, once on bottom, using this method, and searching, currents, yet again, were still pulling us off site. So we did the best we could with our ROV and the limitations that we

had, thank you.

**EXAMINATION**

BY CDR MULLER:

Q. Thank you. So just a few follow-up questions for the Board. I will start off. So the imagery that you were able to collect, obviously it sounds like the environmental factors subsurface, made it challenging to collect a full deck of, or greater imagery, is that correct?

A. CWO ERWIN: This is Chief Warrant Officer Erwin. Yes Commander, the environmental challenges, the depth, and coordinating all that made it difficult to get the ROV on scene.

Q. So, I take it, the way I understand it, the ROV needed to shelter in the lee of the current at the sea floor, behind the vessel. And I -- the way it was explained to me earlier as it would, to rise and try to get imagery higher on the vessel it became more and more difficult. So is that why we don't have -- or you were unable to get images of the main deck, or the bridge?

A. PO DUTTON: This is Petty Officer Richard Dutton. Yes, that would, that's accurate, sir. Upon rising of the keel, and trying to make our way to the working deck we were blown off of the target.

Q. Do you recall, so the Healy crew was able to

recover a crab pot. Do you recall where that crab pot was located in relation to the fishing vessel Destination?

A. PO DUTTON: This is Richard Dutton. No, I do not know.

Q. All right. I have no further questions.

CDR MULLER: Mr. Gillette, do you have any questions?

**EXAMINATION**

BY MR. GILLETTE:

Q. Yes. Good morning, my name is James Gillette with the Coast Guard. I do have one question. It has to do with the pictures of the rails and the scuppers. Was that on the starboard side or the port side of the boat? Do you know?

A. PO DUTTON: This is Petty Officer Richard Dutton. That would be the starboard side.

Q. Okay. Thank you very much.

MR. GILLETTE: Commander those are all the questions that I have.

CDR MULLER: Thank you. Mr. Karr, NTSB?

**EXAMINATION**

BY MR. KARR:

Q. Were you able to measure the currents that you were dealing with down by the Destination?

A. PO DUTTON: This is Petty Officer Richard Dutton. Sir, I do not recall the exact currents. But I know that we were within the limitations of the ROV on surface, given the rigging method that we utilized.

Q. What was that? I'm trying to get an idea of what the current was down there.

A. PO DUTTON: So Coast Guard Cutter Healy was able to give us, I don't recall the exact current. However I know it was under five knots, being -- five knot being the max that this specific ROV could operate in.

However I, at depth I -- the ROV itself does not measure current. You just go off of control ability, thruster ability. And then being able to run sonar and stay on station as needed.

Q. All right. Thanks Petty Officer Dutton.

A. CWO ERWIN: Sir, I have an addition. That ROV can run at about three knots, and then it becomes a challenge.

Also taking into consideration the tether attached to the ROV getting pulled by the currents. That becomes kind of a sail, if you will.

So their clump method, if you will, attaching an anchor and the tether to the anchor mitigates some of that current. I believe, if it was getting blown off

station then it would be in excess of three knots.

Q. All right. Thank you Mr. Erwin.

CWO ERWIN: No Problem.

CDR MULLER: Ms. Spivak, do you have any questions?

MS. SPIVAK: Just a few questions.

CDR MULLER: Okay.

MS. SPIVAK: I will talk loudly since I don't have the microphone.

CDR MULLER: It is on its way.

MS. SPIVAK: Okay, I will hold on.

**EXAMINATION**

BY MS. SPIVAK:

Q. How quickly after pulling the pot from the water did you weigh it, how soon after?

A. CWO ERWIN: Just to speak in terms of getting brief summaries from the vessel, which I will have to turn the operations officer to confirm. As soon as they pulled that on deck, they did let some of the water drain out before they weighed it.

Q. Okay. And did you have any opportunity to weigh the pot without the lines inside it?

A. CWO ERWIN: I believe we did not weight it without the lines insides it.

Q. Okay, thank you. That's all the questions I

have.

CDR MULLER: So thank you for your presentation.

We have a short video clip, because while onboard the Healy, the Coast Guard Public Affairs team was also on board and were able to capture some of the video imagery, and produce a short video.

It represents, essentially, the most useful imagery that we have. So it is representative. And I think it also gives a projection of the kind of challenges the ROV had during this work.

(Playing 7-24-17 video in open court to 206.)

CDR MULLER: So I will maybe just as a few more question to clarify a few things on that video.

Q. Towards the end there, that round piece of steel, we surmised that that was the bulbous bow, would you agree?

A. PO DUTTON: This is Petty Officer Richard Dutton. Given my experience with working on many naval vessels, and diving under naval vessels, I would agree, sir.

Q. I have no further questions.

CDR MULLER: Mr. Gillette?

MR. GILLETTE: Commander I have no follow-up questions.

CDR MULLER: Mr. Karr?

MR. KARR: I have none.

CDR MULLER: Ms. Spivak?

MS. SPIVAK: No. Thank you.

CDR MULLER: Okay, I just want to -- this might be an opportune time for myself as the Board Chairman to just mention a little bit about where we will move forward regarding future dive survey efforts. So again, I value the assistance of NOAA with their surveys, and certainly the efforts of the Healy and the Coast Guard and Navy personnel with the dive teams. Unfortunately the ROV work had challenges. And the imagery was somewhat limited.

So, moving forward, after this hearing concludes, my intention is to continue to work with Chief Warrant Officer Erwin about developing a future course of action, and then briefing that up the chain of command, to see about possibilities of revisiting the site. So of course that is a very dynamic type of decision that involves a lot more input and discussion. But it is something, certainly, that myself and the Marine Board would like to pursue, if at all possible.

Certainly, imagery is very helpful. But I would also say, you know, we can also feel confident that we can move forward with a productive investigation

even without it. So this kind of technology has certainly, the capabilities have increased within just the last number of years, and certainly over the decades.

But marine boards, investigating a similar kind of case, perhaps thirty years ago certainly didn't have this kind of technology available to them. So, you know, I have to keep that in mind as well. But we will leverage every possible opportunity as we move forward in this investigation.

So that concludes the questions and the comments that we have from the Marine Board. Chief Warrant Officer Erwin and Petty Dutton is there any other issues that you think we should, that the Marine Board should consider that was not otherwise discussed here?

THE WITNESS/CWO ERWIN: No, I don't, sir.

THE WITNESS/PO DUTTON: No Sir.

CDR MULLER: Do you have any other comments or --

THE WITNESS/CWO ERWIN: Yes, I'd like to address the family members. I lived on Kodiak Island for six years, and I have some friends in the crab fleet. I can promise you that, you know, as far as we have vessels of opportunity, and the MBI approves, we

will definitely keep up the attempts to launch ROV's, and technologies to identify this.

It was challenging, we didn't know what the environment was going to be like under water. We found out that was, you know, our inaugural cruise. And if given the opportunity, we will definitely attempt to get closure for you guys, and identify what happened. Thank you.

CDR MULLER: Thank you. With that, you are now released as a witness to this Marine Board Investigation. Thank you to you, your staff, your team, and the Coast Guard Cutter Healy for your efforts and cooperation, and collaboration.

If I later determine that this Board needs additional information we will contact you. If you have any questions regarding this investigation please contact myself or LCDR MENDOZA, thank you. Good morning.

We will now take a ten minute recess.

(Whereupon a ten minute recess was then taken.)

CDR MULLER: Good morning again. Good morning, this hearing will come to order.

The Board has concluded its examination of witnesses, and evidence at this hearing. Ms. Spivak, as the Party-in-Interest do you wish to call any witnesses

or examine any evidence?

MS. SPIVAK: No thank you, Commander.

CDR MULLER: Thank you. Would you like to make A closing statement?

**CLOSING STATEMENTS**

MS. SPIVAK: Yes I would, thank you. We spent nine days together in this room, and some of these days were educational, some of these days were very emotional.

As Commander Muller pointed out yesterday, forty witnesses testified during these days. I think what is important to understand that those forty witnesses and these nine days represent only the tip of the iceberg, only a little drop in what this Board has done to date, and what they, most likely will do going forward. So I would like to thank you all for your efforts. For the time you invested and for the resources you invested in this task.

I know within the past six months you all had a crash course in the Bering Sea crab industry, and I hope that during those six months you had an opportunity to appreciate and realize what an incredible industry it is. And what incredible, hard-working, and courageous people work in this industry. I, for one, am very deeply honored to know these people and to work with

some of them. Our fishing community is a small industry, it is a small family. And the loss, tragic loss of Jeff, Larry, Ray, Darrik, Glen and Kai was felt throughout, and our thoughts remain with their families and loved ones.

It was amazing to see how the fishing community pulled together in their support of the families and all the charitable events that took place. David Wilson is very grateful to all of those who offered their support and encouragement during this difficult time. He is looking forward to the time when he can finally, personally reach out to all of you, and share with you personally, in this difficult time.

He is suffering and thinking of you every single day. David fished and crabbed for over forty years, and while he, himself is not fishing any longer, both of his sons and his brother are fishing, out today, as we speak. He remains an integral part of this community and deeply cares about it.

Mr. Wilson is very thankful to the Good Samaritan vessels, and to the U.S. Coast Guard for their attempts and efforts to locate the survivors, and to the U.S. Coast Guard and NTSB for continuing efforts to determine the cause of the sinking.

The fact of one of the best vessels in the

fleet with a crew of extraordinary experienced men disappeared without even a mayday call is very unsettling. And it sends ripples of worry and concern throughout the industry that this can happen to any vessel and any crew.

And so Mr. Wilson and I, myself, we are very hopeful that as a result of this hearing, as a result of the ongoing investigation, you will be able to determine the cause, or causes as it might be of Destination's sinking.

That no more names be added to the already too long of a list of those lost as sea. And that the loved ones can be safely delivered home. Thank you.

CDR MULLER: Thank you.

The Commandant of the United States Coast Guard has convened this Marine Board of Investigation to produce a report on the circumstances surrounding the sinking of the fishing vessel Destination with the loss of six lives on February 11th, 2017, approximately three nautical miles north of St. George Island, Alaska.

The purpose of this public hearing was to collect factual information. The Marine Board will analyze this factual information to develop its report of findings, conclusions, and recommendations.

With a productive hearing now behind us I

believe we gathered the factual evidence necessary to transition to the analysis phase. Although even as we begin the process of writing our report, there is always a chance that the board could convene a short public hearing session if we identified new witnesses, or information.

Further, the Marine Board will continue to collect and review any evidence submitted in the future, including submissions to the FVDestination@USCG.mil email address.

Gathering the evidence over the last six months has been challenging, due to the wide scope and complexities of the investigation. We could not have done so without the collaborative support of our partners. I would like to take this opportunity to sincerely thank Mr. Dave Wilson, and his representatives, the Parties-in-Interest.

Our government agencies, especially NOAA, and the commanding officers and crew of the NOAA ships Oscar Dyson and Fairweather, the NTSB, Coast Guard offices including District Thirteen and Seventeen staff, Coast Guard NAVCEN, Coast Guard Cutter Healy, and the Coast Guard dive locker.

I would also like to thank industry organizations, company representatives, and especially

individual witnesses who dedicated their time and resources to this hearing's endeavor. The collective expertise of those involved in the process has helped the Marine Board clarify numerous technical and regulatory matters.

I want to emphasize that the members of the Marine Board are conducting this investigation with a profound sense of duty to identify the incident's cause and causes, and push for immediate changes to promote fishing vessel safety. Even though the public side of this investigation is coming to an end, rest assured, we will continue to work in earnest to organize the facts, conduct analysis, identify casual factors, draw conclusions, and generate meaningful recommendations.

In the interim, I am confident that conducting the proceedings in a public forum and leveraging Livestream internet and Twitter raises awareness across the fishing vessel fleet including vessel operators, supporting organizations, and compliance agencies.

It is my hope that the fleet takes the opportunity to reflect on the primary issues addressed by the witnesses and take corrective action especially ahead of the upcoming crabbing season.

On behalf of the entire Board, I would like to express my deepest condolences to the friends,

shipmates, and families of the fishing vessel Destination's crew lost at sea. This is certainly a difficult time for them.

We hope our efforts, in at least some small measure, serves as one navigational marker helping them stay in the channel, making headway towards peaceful harbors. Their struggle and courage to come to terms with the tragedy continues on a daily basis. Especially here, in the hearing room where the realities of this tragedy are very visible.

But to my fellow investigators, I offer, it is also important for us to observe this emotional toll, as it strengthens our resolve daily.

Finally, before we adjourn, I ask that you join me in another moment of silence, to honor the six lives lost at sea. If everyone could please stand at this time.

(MOMENT OF SILENCE OBSERVED.)

CDR MULLER: Thank you. This hearing is adjourned.

**(The proceeding then concluded at 113847.)**

**CERTIFICATION**

This certificate is valid only for a transcript accompanied by my original required signature on this page.

I hereby certify that the proceedings in the matter of Marine Board Investigation of the F/V Destination, heard in the United States Coast Guard Thirteenth District, Seattle Washington, Thursday August 17, 2017, were recorded by means of audiotape.

I further certify that, to the best of my knowledge and belief, page numbers one to seventy-two constitute a complete and accurate transcript of the proceedings as transcribed by me.

I further certify that I am neither a relative to nor an employee of any attorney or party herein, and that I have no interest in the outcome of this case.

In witness whereof, I have affixed my signature this 27th day of October, 2017.

[redacted]

Sally S. Gessner, Court Reporter