

#### **UNITED STATES COAST GUARD**

### REPORT OF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING

## THE SINKING WITH LOSS OF LIFE ABOARD THE VESSEL EXITO (O.N. 273458)

ON 12/06/2016



**MISLE ACTIVITY NUMBER: 6054346** 

Commandant United States Coast Guard 2703 Martin Luther King Jr. Ave. SE US Coast Guard Stop 7501Washington, DC 20593-7501 Staff Symbol: CG-INV Phone: (202) 372-1032 E-mail: CG-INV1@uscg.mil

16732/IIA#6054346 02 April 2025

# THE SINKING OF THE COMMERCIAL FISHING VESSEL EXITO (O.N. 273458) RESULTING IN THE LOSS OF TWO LIVES WHILE TRANSITING THE AKUTAN PASS, 11 NAUTICAL MILES NORTHEAST OF DUTCH HARBOR, ALASKA ON DECEMBER 6, 2016

#### **ACTION BY THE COMMANDANT**

The record for the investigation into this marine casualty was approved and closed on August 23, 2022. The following is the Coast Guard's response to the safety recommendations issued in conjunction with the investigation.

#### **ACTION ON RECOMMENDATIONS**

Recommendation 1: It is recommended that Commandant make updates to Form CG-1258 "Application For Initial, Exchange, Or Replacement Of Certificate Of Documentation (COD); Redocumentation", used by the National Vessel Documentation Center (NVDC). Updates would harmonize the terminology on the form to match terminology used in the field and provide an additional nexus to provide maritime domain situational awareness to field units. As an example, and specifically during this investigation, investigators found several vessels operating as 'fish tender vessels' that were misrepresented by their documented classification and 'service' within the MISLE database. The descriptive information contained in the CG-1258 form that is used to populate MISLE data fields for 'classification' and 'service' does not currently match the regulatory terminology used in the form. To resolve these errors, the changes on the form must include the following:

- a) Add "fish tender vessel" or "fishing industry tender vessel" in section 'K' of the CG-1258 form.
- b) Change "commercial fishing boat" to "commercial fishing vessel" in section 'K' of the CG-1258 form.
- c) Update the other vessel descriptions in section 'K' of the CG-1258 to align exactly with the terms and definitions in the applicable vessel inspection subchapters in 33 and 46 Code of Federal Regulations (CFR) (i.e. change "freight ship" to "cargo vessel", in accordance with 46 CFR Subchapter I).

d) Also, include a new block or category on the CG-1258 form for applicants to state the vessel's primary operating area (or where it would normally or primarily be moored/docked) to correspond with the Office in Charge, Marine Inspection (OCMI) zones identified in 33 CFR Part 3. This information could then be utilized to provide a nexus to inform local OCMIs of vessels with new, updated, or changed CODs operating commercially in their areas of responsibility.

Action: I partially concur with this recommendation. The Office of Commercial Vessel Compliance (CG-CVC) will coordinate with NVDC to update Form CG-1258, titled "Application for Initial, Exchange, or Replacement of Certificate of Documentation", to align terminology and selection options with the terms outlined in in applicable Title 46 CFR. This will include but not limited to Commercial Fishing Industrial Vessel, Commercial Fishing Vessel, Freight Ship, etc.

However, I do not concur with adding a block to the aforementioned application for primary operating area since some vessel operations are not bound by operating area.

Recommendation 2: It is recommended that Commandant establish a notification procedure or method through which the NVDC can easily provide information to OCMI offices of new, updated, or exchanged, CODs that are issued for commercial operations. A gap in maritime domain awareness exists throughout the Coast Guard and commercial vessels have been found operating in an AOR for extended periods of time unbeknownst to the local OCMI. NVDC notification to the local OCMI could improve maritime domain awareness and improve regulatory compliance, thus increasing safety. It could also improve MISLE data accuracy. In addition, timely notification of the OCMI could confirm details of an owner's application for COD and ensure that a vessel owner does not operate outside the COD.

Action: I concur with the intent of this recommendation. It is not feasible for the NVDC to update local Officer in Charge, Marine Inspection (OCMI) on every change made to a COD. The NVDC receives approximately 350,000 applications a year. However, the Office of Commercial Vessel Compliance (CVC) will coordinate with the National Oceanic and Atmospheric Administration (NOAA) to routinely notify Coast Guard field units and Districts of vessels placed on the NOAA buy-back program. This will provide awareness to units to ensure industry compliance.

Recommendation 3: It is recommended that Commandant complete a comprehensive review and update to the MISLE software to ensure the input of accurate information into the database for a vessel's 'classification' and 'service'. Current MISLE drop-down options for vessel 'classification' and 'service' needs to be simplified and better aligned with exact regulatory vessel description language/definitions and not create automatic defaults (especially to the vessel's 'service') which in some instances currently misrepresent what the vessel actually does. The current MISLE drop down options for this are: "Classification"; - "Type"; - "Subtype"; which will then 'default' to a specific "Service".

MISLE is the primary tool that Coast Guard personnel use to identify a vessel's 'service', which also feeds Coast Guard Business Intelligence (CGBI) inspections cube queries; however, if the information in MISLE is not always accurate (as it pertains to a vessel's 'service') it can

potentially cause personnel to not be able to properly identify possible issues or oversights with specific vessels. Identifying and correcting inaccurate 'defaults' of vessel 'service' in MISLE and simplifying the drop-downs for "classification", "types" and "subtypes" will ensure that personnel (and the Coast Guard in general) can accurately query, obtain, and utilize MISLE data to ensure proper regulatory oversight action is taken.

Action: I concur with this recommendation. The Coast Guard is currently working on the next iteration to the Marine Information for Safety and Law Enforcement (MISLE) application. The Office of Commercial Vessel Compliance (CG-CVC) is part of the working group to develop the specifications for this new application. The Coast Guard anticipates completing the multi-year MISLE modernization project in December 2028. This recommendation will be taken into consideration when developing the vessel classification components to the new MISLE application. In the interim, the Coast Guard added a notation field to MISLE in January of 2025 to capture multiple service types for commercial fishing vessels that is displayed on the vessel's MISLE critical profile.

Recommendation 4: It is recommended that there be coordination between Commandant and Pacific Area to conduct a feasibility study regarding the enhancement of VHF radio coverage in the area surrounding Unalaska and Akutan Islands. Communications within this area are severely hindered by lack of VHF radio coverage (from station to station) outside of about five miles (line-of-sight) in unobstructed conditions, thus limiting the resources to make a distress call or communicate in emergency situations. To improve communications for maritime stakeholders, the study should consider the effectiveness of reestablishing a "high-site" radio tower in the area.

<u>Action</u>: I concur with this recommendation. Adequate radio coverage is essential to permit mariner communications with responders during high-risk situations at-sea. Coast Guard Office of C4 & Sensors Capabilities (CG-761) and the Command, Control, Communication, Computer, Cyber and Intelligence Service Center (C5ISC) are currently conducting a feasibility study.

Recommendation 5: It is recommended that Commandant (CG-CVC-3) direct the development and implementation of policy for OCMIs to use as a resource to evaluate vessel commercial activities for vessels that operate as a 'fish tender vessel', as defined in 46 CFR Part 28. To prevent inconsistencies on the interpretation of the regulations throughout the Coast Guard, the policy must provide guidance on what goods or commodities can be or are considered as "materials" that can be carried by a fish tender vessel, including the limitations and the requirements to be an uninspected commercial fishing industry vessel. The policy should also specifically address carriage of stick-water and hazardous materials.

<u>Action</u>: I concur with the intent of this recommendation. The Office of Commercial Vessel Compliance (CVC) is coordinating with the Coast Guard Office of General Law (CG-LGL) to ratify the definition of "Stick-Water" prior to its inclusion into Title 46 CFR Part 28.

<u>Recommendation 6</u>: It is recommended that Commandant (CG-CVC-3) direct the development and implementation of a compliance program for 'fish tender' vessel owners and operators to

meet the requirements of load line laws and regulations. This would include both Coast Guard and industry awareness outreach – as to the application of load line laws and regulations for vessels operating as fish tenders. A substantial portion of the 'fish tender' fleet is comprised of small entity vessel owners/operators, and most vessels that were not built or converted as a 'fish tender' vessel prior to 1980 (thus requiring a load line). Meeting load line requirements is a costly expense for small entity owners/operators. The Coast Guard should provide a solution that will promote commerce and not place financial hardship for owners/operators impacted by load line requirements.

Action: I concur with this recommendation. In 2019 Coast Guard Pacific Area (PACAREA) established a fish tender vessel charter task-group to analyze fish tender vessel non-compliance with certain load line requirements in Coast Guard Districts 13 & 17. The aim of the task group is to identify if an alternate compliance approach can be considered for certain fish tender vessels. In addition, as required by the Coast Guard Authorization Act of 2022 (Section 11325), the Government Accountability Office (GAO) analyzed fish tender vessel load line requirements for fish tender vessels in Coast Guard Districts 13 & 17 and publicly released their report and recommendations to the Coast Guard on February 20, 2024. The GAO report included a similar recommendation for the Coast Guard to fully assess the safety risks posed to fish tender vessels without a load line that may participate in any proposed alternative compliance program.

The Coast Guard PACAREA fish tender task-group is currently in the process of completing its assessment of fish tender vessel noncompliance with load line requirements. Once the assessment is complete, CG-CVC will evaluate the findings and risks to the non-load line fish tender population to help develop an appropriate alternative compliance scheme.

**Recommendation 7:** It is recommended that Commandant evaluate the Coast Guard licensing exam for 100 GRT Masters, to consider adding stability and damage stability questions to the exam. Masters should be expected to have some knowledge and understanding on the principles of stability to enhance their response to emergencies onboard a vessel.

Action: I concur with the intent of this recommendation. The examination for Master 100 GRT already includes topics on Stability and Trim as described in Title 46 CFR Part 11.910. However, the EXITO was operating as a fishing vessel at the time of the incident; therefore, this recommendation would not have prevented this casualty as credentialing starts at 200 GRT for commercial fishing vessels.

The Coast Guard also recognizes that it is necessary for fishing vessel masters to have a knowledge and understanding on the principles of stability to enhance their response to emergencies onboard a vessel. The Coast Guard highly encourages fishing industry stakeholders to voluntarily participate in available stability training.

Since the sinking of the vessel EXITO, the following stability courses, which were coauthored by the National Commercial Fishing Vessel Advisory Committee, have been endorsed by CG-CVC's Fishing Vessel Safety Division, and have been "accepted" by the Coast Guard National Maritime Center (NMC):

• 2019: Alaska Marine Safety Education Association (AMSEA) Stability Course (ALMSEA-205).

• 2019: North Pacific Fishing Vessel Owners Association (NPFVOA) Stability Course (NPFVOA-205).

**Recommendation 8:** It is recommended that Commandant, PACIFIC AREA, District 17, and District 13 engage with the United Stated Maritime Administration (MARAD) and NOAA to harmonize terminology and definitions in law (U.S. Code) and the Code of Federal Regulations applicable to commercial fishing industry vessels.

Action: I concur with this intent of this recommendation. Recognizing terminologies and definitions may have difference meanings, 100% alignment may not be practicable. As such, it may not be advantageous to pursue harmonization due to unique requirements relevant to select agencies or statutes.

In many circumstances, offering clarification on misunderstood topics can be accomplished by way of guidance (such as policy letters, procedures (PR), or work instructions (WI)).

To address this recommendation, CG-CVC will review terminologies/definitions relevant to commercial fishing industry vessels, and if warranted, will draft appropriate guidance to address misinterpreted terminologies.

**Recommendation 9:** It is recommended that District 17 assist field units in conducting industry outreach to the commercial fishing industry and processors in Alaska to expand their awareness of regulations applicable to their vessels and operations. This outreach could include public outreach events and information on the applicability of load line laws and regulations.

<u>Action</u>: I concur with this recommendation. Coast Guard District Seventeen will continue to assist field units by conducting industry outreach with the commercial fishing industry and processors in Alaska to expand their awareness of regulations applicable to their vessels and operations. District 17 staff will continue to maximize outreach opportunities at the Pacific Marine Expo, with the Tenderman's Association, and other professional engagements to expand awareness and obtain invaluable input from industry on important issues.

**Recommendation 10:** It is recommended that there be coordination between District 17 and the Marine Safety Center to issue a "Lessons Learned" document on the best marine practices for maintaining and ensuring the satisfactory material condition of a vessel's main metallic deck if there is a secondary (or "false") wooden deck placed over/atop it.

<u>Action</u>: I concur with the intent of this recommendation. The Coast Guard has discontinued the use of "Lessons Learned", which have been superseded by Findings of Concern. In this case the Coast Guard will issue a Findings of Concern emphasizing the importance of ensuring the satisfactory material condition of a vessel's main metallic deck if there is a secondary wooden deck placed on top.

<u>Recommendation 11</u>: It is recommended that District 17 issue a Navigation Safety Advisory in regards to operating outside of normal VHF radio coverage areas and that alternate communication means is necessary. Vessel crews should be readily aware of what means and direct numbers to contact Coast Guard Command Centers on, in the case of an emergency; and all vessel crew members should be fully aware of how to effectively execute emergency communications via alternate means.

<u>Action</u>: I concur with this recommendation and note that in April of 2021 Coast Guard District Seventeen issued a Marine Safety Information Broadcast (MSIB) in the Local Notice to Mariners reminding vessels operating outside of normal VHF radio coverage areas that alternate means of communication means are necessary.

A. M. BEACH

Captain, U.S. Coast Guard Director of Inspections & Compliance (CG-5PC)



Commandant United States Coast Guard U.S. Coast Guard STOP 7501 2703 Martin Luther King Jr. Ave. SE Washington, DC 20593-7501 Staff Symbol: CG-INV Phone: (202) 372-1030 E-mail: CG-INV1@uscg.mil

16732/IIA# 6054346 15 June 2022

### THE SINKING THE COMMERCIAL FISHING VESSEL EXITO RESULTING IN LOSS OF LIFE NEAR DUTCH HARBOR, AK ON DECEMBER 6, 2016

#### **ACTION BY THE COMMANDANT**

The record and the report of the investigation convened for the subject casualty have been reviewed. The record and the report, including the findings of fact, analysis, and conclusions are hereby closed.

The investigation's safety recommendations will remain under review and consideration by the responsible program office(s). The response to the recommendations and any resultant actions will be documented separately.

A. L. FAHRIG

Commander, U.S. Coast Guard Acting Chief, Office of Investigations & Casualty Analysis (CG-INV) SECOND ENDORSEMENT on SECTOR Anchorage Memo 16732 of 29 Jun 2018

From: P. M. HILBERT, CAPT

CGD SEVENTEEN (dp)

To: COMDT (CG-INV)

Subj: ENDORSEMENT OF SAFETY RECOMMENDATIONS REGARDING THE SINKING WITH LOSS OF LIFE ABOARD THE VESSEL EXITO (O.N. 273458)

- 1. Forwarded, approved. I concur with the Investigating Officer's findings of fact and conclusions.
- 2. Safety Recommendations:
  - a. Recommendation #1: Updates to Form CG-1258 "Application For Initial, Exchange, Or Replacement of Certificate of Documentation". I concur with the recommendation for Commandant to update Form CG-1258 "Application For Initial, Exchange, Or Replacement Of Certificate Of Documentation; Redocumentation", used by the National Vessel Documentation Center (NVDC). Recommended updates would harmonize terminology and improve maritime domain situational awareness.
  - b. Recommendation #2: Maritime Domain Awareness. I concur with the recommendation for Commandant to establish a notification procedure for the NVDC to provide information to Officer In-Charge Marine Inspection (OCMI) offices of new, updated, or exchanged, certificates of documentation (COD) that are issued for commercial operations. This improvement would increase maritime domain awareness which would allow the OCMI to ensure regulatory compliance and increase safety of their fleet of responsibility.
  - c. **Recommendation #3: MISLE Update.** I concur with the recommendation for Commandant to update to MISLE software to increase accuracy of the database for a vessel's 'classification' and 'service' which could help the OCMI ensure proper regulatory oversight.
  - d. Recommendation #4: VHF Radio Coverage Feasibility Study. I concur with the recommendation for Commandant and Pacific Area to conduct a feasibility study regarding the installation of VHF radio coverage in the area surrounding Unalaska and Akutan Islands. Currently the Coast Guard does not have any VHF coverage in the area. To improve communications for maritime stakeholders, the study should consider the effectiveness of establishing a "high-site" radio tower in the area.

- e. Recommendation #5: Fish Tender Vessel Evaluation. I concur with the recommendation for Commandant (CG-CVC-3) to direct the development and implementation of policy for OCMIs to use as a resource to evaluate vessel commercial activities for vessels that operate as a 'fish tender vessel', as defined in 46 CFR Part 28. To prevent inconsistencies on the interpretation of the regulations throughout the Coast Guard, the policy must provide guidance on what goods or commodities can be or are considered as "materials" that can be carried by a fish tender vessel, including the limitations and the requirements to be an uninspected commercial fishing industry vessel. The policy should also specifically address carriage of stick-water and hazardous materials.
- f. Recommendation #6: Fish Tender Vessel Compliance Program. I concur with the recommendation for Commandant (CG-CVC-3) to direct the development and implementation of a compliance program for 'fish tender' vessel owners and operators to meet the requirements of load line laws and regulations. I agree that enforcement of a load line compliance program would increase safety of an aging fleet of fish tender vessels and any proposed solutions must to be sensitive to the financial impact to industry.
- g. Recommendation #7: License Exam for 100 GRT Masters. I concur with the intent of this recommendation for Commandant to evaluate the Coast Guard licensing exam for 100 GRT masters, to consider adding stability and damage stability questions to the exam. The EXITO was an uninspected, documented, seagoing vessel, under 200 GRT and was not required to have a licensed master on board.
- h. Recommendation #8: Harmonization of Terminology in Law and Regulation. I concur with the recommendation for Commandant, Pacific Area, District 17, and District 13 to engage with MARAD and NOAA to harmonize terminology and definitions in law and regulations applicable to commercial fishing industry vessels.
- i. Recommendation #9: Industry Outreach. I concur with the intent of this recommendation. District 17 will continue to assist field units by conducting industry outreach with the commercial fishing industry and processors in Alaska to expand their awareness of regulations applicable to their vessels and operations. District 17 staff will continue to maximize outreach opportunities at the Pacific Marine Expo, with the Tenderman's Association, and other professional engagements to expand awareness and obtain invaluable input from industry on important issues.
- j. Recommendation #10: Lessons Learned Material Condition of the Main Deck. I concur with the intent of this recommendation. My staff will collaborate with the Marine Safety Center to issue a Safety Alert that outlines the importance of ensuring the satisfactory material condition of a vessel's main metallic deck if there is a secondary wooden deck placed on top.
- k. Recommendation #11: Navigation Safety Advisory. I concur with this

Subj: ENDORSEMENT OF SAFETY RECOMMENDATIONS REGARDING THE SINKING WITH LOSS OF LIFE ABOARD THE VESSEL EXITO (O.N. 273458)

recommendation. My staff will draft a Marine Safety Information Broadcast which will be published in the Local Notice to Mariners reminding vessels operating outside of normal VHF radio coverage areas that alternate means of communication means are necessary. The MSIB will contain direct contact information for Coast Guard command centers as well as a graphic showing the limitations of VHF radio coverage areas in Alaska.

#### 3. Enforcement Recommendations:

- a. **Recommendation #1:** I concur with the recommendation that Sector Anchorage should investigate potential enforcement action against the owner of the EXITO for failing to comply with load line and AIS requirements.
- b. **Recommendation #2:** I concur with the recommendation that Sector Anchorage should investigate potential suspension and revocation action against the Master of the EXITO for failing to conduct drills, have written emergency instructions, and for not providing a safety orientation to each individual on board.

#### 4. Administrative Recommendations:

- a. I concur with all administrative recommendations and recommend this casualty investigation be closed.
- b. District Seventeen legal conducted a review of the case for Seaman's Manslaughter per 18 USC 1115 and does not recommend referral to the U.S. Attorney's Office based on the facts presented.
- 5. My point of contact is Lieutenant Commander

#

Enclosure: (1) REPORT OF INVESTIGATION (ROI) INTO THE CIRCUMSTANCES SURROUNDING THE SINKING WITH LOSS OF LIFE ABOARD THE VESSEL EXITO (O.N. 273458) DATED 28 JUN 2018

Copy: COMDT (CG-CVC-3)
CG PACAREA (PAC-54)
CG SECTOR Anchorage
CG SECTOR Juneau

CG MSU Valdez



Commander United States Coast Guard Sector Anchorage PO Box 5800 JBER, AK 99505 Staff Symbol: s Phone: 907-428-4200 Fax: 907-428-4218

16732 29 Jun 2018

#### **MEMORANDUM**

From: S. C. MACKENZIE, CAPT Reply to CG SECTOR Anchorage (s) Attn of: 907-428-4178

To: COMDT (CG-INV)
Thru: CGD SEVENTEEN (dp)

Subj: ENDORSEMENT OF SAFETY RECOMMENDATIONS REGARDING THE

SINKING WITH A LOSS OF LIFE ABOARD THE FISHING VESSEL (F/V) EXITO

(O.N. 273458)

Ref:

(a) Title 46 United States Code Chapter 63

(b) Title 46 Code of Federal Regulations Subpart 4.07

1. Forwarded, approved.

2. I concur with the Investigating Officer's safety recommendation to:

- a. Request Commandant to update Form CG-1258 "<u>Application For Initial, Exchange, Or Replacement Of Certificate Of Documentation; Redocumentation</u>", used by the National Vessel Documentation Center.
- b. Request Commandant establish a notification procedure or method through which the NVDC can easily provide information to OCMI offices of new, updated, exchanged, etc. CODs that are issued for commercial operations.
- c. Request Commandant to complete a comprehensive review and update to the MISLE software to ensure the input of accurate information into the database for a vessel's 'classification' and 'service'.
- d. Request coordination between Commandant and PACIFIC AREA to conduct a feasibility study regarding the enhancement of VHF radio coverage in the area surrounding Unalaska and Akutan Islands.
- e. Request Commandant (CG-CVC-3) to direct the development and implementation of policy for OCMIs to use as a resource to evaluate vessel commercial activities for vessels that operate as a 'fish tender vessel', as defined in 46 CFR Part 28.

- f. Request Commandant (CG-CVC-3) develop and implement a compliance program for 'fish tender' vessel owners and operators to meet the requirements of load line laws and regulations.
- g. Request Commandant to evaluate the Coast Guard licensing exam for 100 GRT Masters to consider adding stability and damage stability questions to the exam.
- h. Request Commandant, PACIFIC AREA, District 17, and District 13 to engage with MARAD and NOAA to harmonize terminology and definitions in law (U.S. Code) and the Code of Federal Regulations (CFRs) applicable to commercial fishing industry vessels.
- i. Request District 17 Commander assist field units in conducting industry outreach to the commercial fishing industry and processors in Alaska to expand their awareness of regulations applicable to their vessels and operations. This outreach could include industry training, public events (such as the Marine Expo), and sharing of Lessons Learned on the applicability of load line laws and regulations.
- j. Request coordination between Commandant and District 17 Commander to issue a "Lessons Learned" document on the best marine practices for maintaining and ensuring the satisfactory material condition of a vessel's main metallic deck if there is a secondary (or "false") wooden deck placed over/atop it.
- k. Request District 17 Commander to issue a Navigation Safety Advisory in regards to operating outside of normal VHF radio coverage areas in Alaska and that alternate means of communication is necessary.
- 3. Pursuant to references (a) and (b), an investigation was completed and documented in MISLE Activity 6054346. I concur with the Investigating Officer's safety recommendation(s), and I have approved the attached report of investigation.

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Enclosure: (1) Report Of Investigation Into The Circumstances Surrounding The Sinking With Loss Of Life Aboard The Vessel EXITO (O.N. 273458)



Commander United States Coast Guard Sector Anchorage P.O. Box 5800 JBER, AK 99505-0800 Staff Symbol: spv Phone: (907) 428-4200 Fax: (907) 428-4218

Email: WesternAlaskalO@uscg.mil

16732 28 June 2018

**MEMORANDUM** 

From: LCDR Investigating Officer

Reply to LT Attn of: 907-428- 4173

To: S. MACKENZIE, CAPT

CG SECTOR Anchorage (s)

Subj: REPORT OF INVESTIGATION (ROI) INTO THE CIRCUMSTANCES

SURROUNDING THE SINKING WITH LOSS OF LIFE ABOARD THE VESSEL

EXITO (O.N. 273458)

Ref: (a) Title 46 United States Code Chapter 63

(b) Title 46 Code of Federal Regulations Subpart 4.07

(c) Marine Safety Manual, Volume V, Investigations and Enforcement, COMDTINST

M16000.10A

#### **Preliminary Statement:**

In accordance with references (a) through (c), an investigation was conducted into the sinking with loss of life aboard the vessel EXITO (O.N. 273458). The primary Coast Guard investigator of this incident was CWO - who conducted interviews, gathered evidence, and started this Report of Investigation (ROI) but departed Marine Safety Detachment (MSD) Dutch Harbor prior to final completion of this report. LCDR from Sector Anchorage completed this report, with assistance from CWO The incident met the requirements for a Major Marine Casualty, as it involved the loss of a mechanically propelled vessel of 100 or more gross tons, and involved property damage initially estimated as being over \$500,000.00. The National Transportation Safety Board (NTSB) was notified and Mr. conducted an investigation for the NTSB. All times contained in this ROI are approximate and given in Alaska Daylight Time. This marine casualty is documented in the Coast Guard's Marine Information for Safety and Law Enforcement (MISLE) database as activity #6054346.

Identifying the vessel's classification was a challenge during the course of the investigation. Inspectors and investigators from Coast Guard Sector Anchorage (including its three MSDs) and Coast Guard District 17 debated whether the vessel should have been considered as a Coast Guard inspected or uninspected vessel. The classification of the vessel was critical in order to determine the regulatory standards which it was required to meet. Regulations and laws for uninspected vessels, and in particular fish tenders, were broad and convoluted. In general, the nature of a vessel's operations, along with information from a vessel's Certificate of

Documentation (COD), are the key components to determine if it should be inspected or uninspected. With a vessel's COD, an evaluation is made based upon the documented classification, endorsement(s) and note(s) annotated by the Coast Guard's National Vessel Documentation Center (NVDC).

Unbeknownst to inspectors and investigators involved in this investigation, it was discovered that in accordance with federal regulations, the Maritime Administration (MARAD) and Customs and Border Protection (CBP) play a role in the determination of a vessel's COD endorsement. Additionally, the COD for the EXITO had specific instructions regarding the "buy-back" program, which is headed by National Oceanic and Atmospheric Administration (NOAA) Law Enforcement. Each governmental agency had varying definitions that were conflicting when it came to the term "fisheries". Also, each governmental agency had a different interpretation when describing the operations of a fish tender vessel.

Sector Anchorage made a request and submitted supporting documents to District 17 to provide a legal determination on uninspected fish tender classifications. For the purpose of this investigation, the EXITO was determined to be an uninspected fish tender vessel, and was not required to have a 'fishery' endorsement on its COD.

According to witness statements, the only known copy of the vessel's drawings were onboard the EXITO at the time of the incident. Investigators reached out to third parties that performed work on the vessel and to the Coast Guard Marine Safety Center to locate any copies of the vessel's drawings, but none were found. The EXITO's owner and the master at the time of the incident collaborated to draw out the vessel's layout to the best of their knowledge; these drawings are referred to in this investigation.

#### **Executive Summary:**

On the evening of December 6, 2016, the uninspected U.S. flagged commercial fish tender EXITO (O.N. 273458), a 117.4 foot, 188 gross ton vessel, was transiting from Dutch Harbor, AK, to Akutan, AK, when the vessel began to take on water at approximately 9:00 PM (local – Alaska Standard time), and sank within 45 minutes, in the Akutan Pass area of the Bering Sea. The EXITO sank in a charted depth of water of approximately 300 feet. At the time of the incident, there were five persons on board (POB) – the master, a crewmember, and three third party contractors from the company Acuren (who were working for Trident Seafoods). The EXITO also carried cargo on its main deck, which included twelve 55-gallon drums of ethylene glycol (anti-freeze) and one industrial x-ray machine that contained radioactive materials. Additionally, an estimated maximum amount of 2,200 gallons of diesel fuel and other oil products were loaded onboard in integral tanks.

Sometime shortly after 9:00 PM on December 6, 2016, the master of the EXITO contacted the owner of the vessel via cell phone when he first had an uneasy feeling about how the vessel was riding in the water. After the phone call, the owner contacted the duty personnel at MSD Dutch Harbor; this was the first time that the Coast Guard was notified about the situation with the vessel. The duty personnel informed the owner to contact the Sector Anchorage Command Center for purposes of search and rescue (SAR), which the owner did. As the situation onboard

the EXITO worsened, the master carried out counter-measures, to the best of his knowledge, in an effort to improve the stability of the vessel. At some point, the master sounded the vessel's general alarm and gave orders to the three contractors to don immersion suits and proceed to the wheelhouse from the vessel's galley space (which was the general vicinity of where the contractors were gathered, when the general alarm was sounded). The wheelhouse was two decks above the galley space.

The master eventually had to assist the three contractors with the donning of immersion suits while they were still in the galley. Two of the contractors made their way up the vessel's internal stairwell into the wheelhouse while the vessel was beginning to progressively list to its starboard-side. The master assisted the third contractor, as best as he could, until he had to return to the wheelhouse to manage the worsening situation. Once the master returned to the wheelhouse, he gave the order to abandon the ship. Multiple VHF radio "Mayday" calls were made by the master, and the crewmember was directed to prepare the liferaft for deployment.

One of the two contractors in the wheelhouse began to experience signs of psychological trauma and resisted leaving the wheelhouse to go to the vessel's liferaft station. The master attempted to assist the traumatized contractor to go to the liferaft station as the second contractor in the wheelhouse had already exited to join the crewmember at the liferaft station. The crewmember had difficulty deploying the liferaft by himself and shouted for assistance from the master. Prior to leaving the wheelhouse, the master saw that the third contractor had made his way to the middle stairwell landing between the galley and the wheelhouse, while also seeing that the traumatized contractor had placed himself on the wheelhouse floor. After the master completed assisting the crewmember with the liferaft deployment, he attempted to make his way back to the wheelhouse when the vessel sank out from under him. Four of the five POBs were able to successfully don a fully zipped immersion suit, while the fifth was only reported to have had an immersion suit zipped half-way-up. Three of the five POB were able to abandon ship – the master, crewmember, and one of the three contractors; these three individuals were placed in the water when the EXITO completely sank out from under them, and had to swim to the vessel's deployed liferaft to embark it.

The three survivors were rescued by the nearby commercial fishing vessel AFOGNAK STRAIT, which had heard one of the VHF radio "Mayday" calls from the EXITO. The AFOGNAK STRAIT remained on-scene with the three survivors onboard to assist with SAR. While aboard the AFOGNAK STRAIT, an alcohol test was administered for the EXITO's master and the crewmember. The three survivors safely disembarked the AFOGNAK STRAIT the next morning in Dutch Harbor. There were no reported injuries to the three survivors, and the master and crewmember of the EXITO later completed a post casualty drug test.

Coast Guard SAR coordination was conducted by the District 17 Command Center. Several Coast Guard assets were deployed and four commercial fishing vessels in the area were also utilized for the search. The remaining two POB were unaccounted for/missing, and later all SAR efforts were suspended by the Coast Guard. The two POB who were unaccounted for were presumed to have perished when the EXITO sank. The pollution response phase of the incident occurred for three days following, and was completed after a determination was made by the Sector Anchorage Federal On-Scene Coordinator Representative. It was determined that the

radioactive element onboard the EXITO was not a threat to national security or the environment due to the location and depth of water where the vessel sank, including the packaging which encased the material.

#### **Incident Summary:**

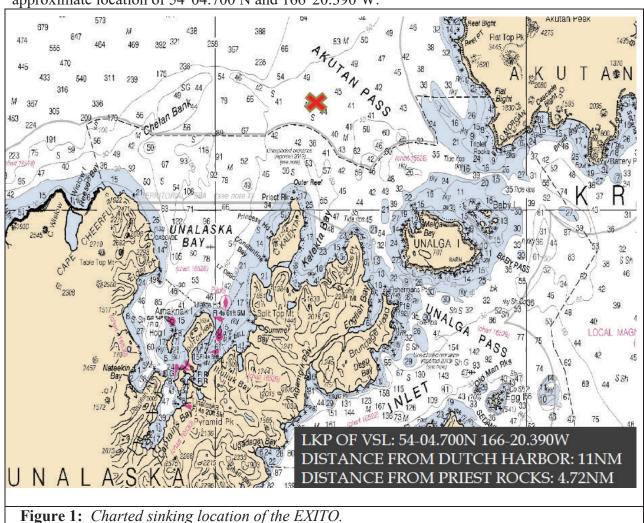
Incident Involved: Marine Casualty, Reportable

Level of Investigation: Informal

USCG Classification: Major Marine Casualty Was this a Serious Marine Incident? Yes Was a Marine Board Convened? No

#### **Location:**

The incident occurred in the Bering Sea, between Unalaska and Akutan Islands, at an approximate location of 54°04.700 N and 166°20.390 W.



#### **Vessel Data:**

Vessel Name	EXITO	
Vessel Identification Number	273458	
Year Build	1956	
Inspection Subchapter	46 CFR Subchapter C (Uninspected)	
Service	Fish Tender Vessel	
Vessel Length (in feet)	117.4	
Gross Tons (GRT)	188	
Propulsion	Diesel 800HP	
Homeport	Dutch Harbor, AK	
Hull Material	Steel	
Owner	ALEUTIAN ENDEAVOR LLC	
Value	\$310,000	



Figure 2: EXITO Port-Side View (note: photo was taken in March of 2006).



Figure 3: EXITO Starboard-Side View.

#### **Personnel Data:**

NAME	ROLE	USCG MMC	DEATH/INJURY
	Master	Yes	No
	Crewmember (deckhand)	No	No
	Contractor (with Acuren)	No	No
Kevin Farrah Contractor (with Acuren)		No	Yes - Death
William Petty	Contractor (with Acuren)	No	Yes - Death

#### **Environmental Data:**

Buoy data from Dutch Harbor, identified as 'UNLA2 – Unalaska, AK' was obtained and documented. The buoy was located approximately 14 miles south-southwest of the accident site. The following conditions were reported for December 6, 2016, at 9:40 PM.

Wind Directions: 340 degrees
Wind Speed: 13 knots
Gusts: 16 knots
Air Temp: 38°F

According to the NOAA National Weather Service (NWS) the reported weather and water condition were:

Wind Directions: NNW to N
Wind Speed: 10 to 20 mph
Gusts: 28 mph
Air Temp: 38°F

Conditions: Overcast. Visibility up to 10 miles

Wave Height: 8 to 12 ft.

Weather forecast information from NWS Anchorage at 3:22 PM on December 6, 2016 had a small craft advisory in effect for the area that the EXITO transited through. A small craft advisory means that current weather conditions are expected to produce hazardous wave conditions to small craft. Inexperienced mariners, especially those operating smaller vessels, should avoid navigating in those conditions.

#### **Findings of Fact:**

#### **Vessel Ownership History**

- 1. Current and previous Coast Guard applications (Form CG-1258) for a COD do not provide applicants the option to select "Fish Tender" under the form's 'Primary Service' (of the vessel) block.
- 2. The COD does not list or indicate the vessel's 'primary service' (or classification). This information will initially be entered into MISLE by the NVDC utilizing the provided information from the COD application. The NVDC does not verify the accuracy of the actual 'primary service' of a vessel, as this is typically done by Coast Guard field personnel (i.e. Inspectors, Examiners, Investigators, Boarding Officers, etc.).
- 3. The EXITO was originally built in 1956 as an oil and gas field industry vessel; it was USCG inspected and ABS load-lined until 1987 when it was bought and converted for use as a commercial fishing vessel.
- 4. The EXITO participated in the voluntary USCG commercial fishing vessel (CFV) exam program from 1995-2003, and received a CFV safety decal as proof of meeting the applicable regulatory requirements during that timeframe when it served as a "fishing vessel".
- 5. On December 30, 2004, the EXITO's fishing permits were purchased as part of a NOAA "buy-back" program; due to this, the vessel's subsequent CODs (after 2004) stated that the vessel was restricted from having a 'fishery' operational endorsement and that the "(v)essel may never again engage in any fishing activity (as the term "fishing" is defined in section 3 of the Magnuson-Stevens Fishery Conservation and Management Act).
- 6. After the EXITO's fishing permits were purchased as part of the NOAA "buy-back" program, three different owners of the vessel had listed the EXITO's 'primary service' as a 'Research Vessel', a 'Freight Ship' and as an 'Unclassified Vessel' on the COD applications for the vessel.

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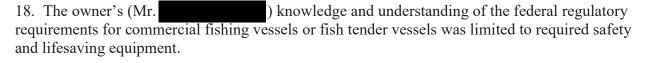
7. 'Stick-water' is a commonly used term in the commercial fishing industry, which describes the by-product of fish and crab, after it has been processed. 8. Mr. was the owner of the EXITO for approximately six years prior to Mr. owned the vessel, he began to haul stick-water, for disposal at sea, While Mr. from the Westward fish processing facility in Unalaska. According to Mr. introduced to the operation after a friend asked him to be his substitute. Prior to this, Mr. experience in the commercial fishing industry was limited to working as a processor on a fish processing vessel. was not familiar with the federal regulatory requirements for commercial fishing vessels or fish tender vessels. Mr. stated that the only time he could recall ever being boarded or visited by Coast Guard officials, during his ownership of the EXITO, was following a stability and oil discharge incident he had with the vessel in January 2008, when he had taken cargo (on the EXITO's main deck) to a fish processing facility on Adak Island, AK. learned about the stick-water operation from Mr. that there were no issues for the EXITO to haul stick-water for disposal from fish Mr. processing facilities. 11. On November 12, 2012, Mr. purchased the EXITO from Mr. original intention for the EXITO was to sell it for scrap. On April 15, 2013, Mr. transferred ownership of the EXITO to Aleutian Endeavor, LLC. Mr. the sole member of Aleutian Endeavor, LLC. 12. Mr. utilized the EXITO to haul stick-water from the Trident Seafoods fish processing facility, located on Akutan Island, to dispose at sea. The vessel's homeport remained Dutch Harbor; however, it normally operated out of and docked in Akutan.

- 13. Trident Seafoods contracted the EXITO to haul stick-water from the Akutan facility for disposal at sea, per Environmental Protection Agency (EPA) requirements. On occasion, the EXITO was also tasked with carrying cargo between the facility in Akutan and Dutch Harbor, which was approximately 40 miles away.
- 14. The charter agreement between Aleutian Endeavor, LLC and Trident Seafoods employed the EXITO as a tender vessel. The agreement required the vessel owner to maintain the vessel in a seaworthy condition, maintain compliance with applicable laws and regulations, and to man the vessel with qualified and experienced crew that met or exceeded Coast Guard requirements.
- 15. The EXITO did not have a required Automated Identification System (AIS) installed in accordance with 33 Code of Federal Regulations (CFR) Part 164.46.

#### **Individuals Onboard**

- 16. Per Coast Guard regulations, a licensed master was not required on board the EXITO.
- 17. The owner, Mr. and his brother, Mr. and his brother, Mr. had experience with commercial fishing vessels most of their lives. Both had sailed as master on the EXITO.

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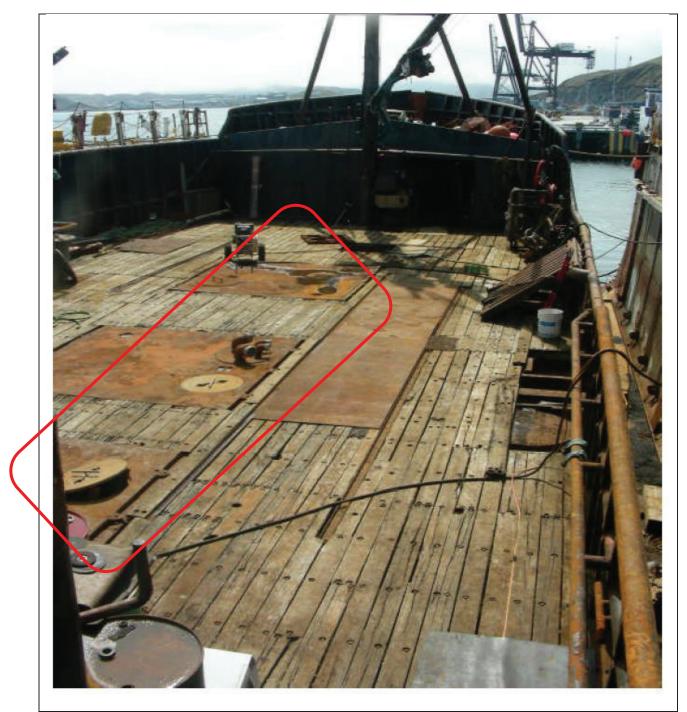


- 19. The master of the EXITO, at the time of incident, was Mr.

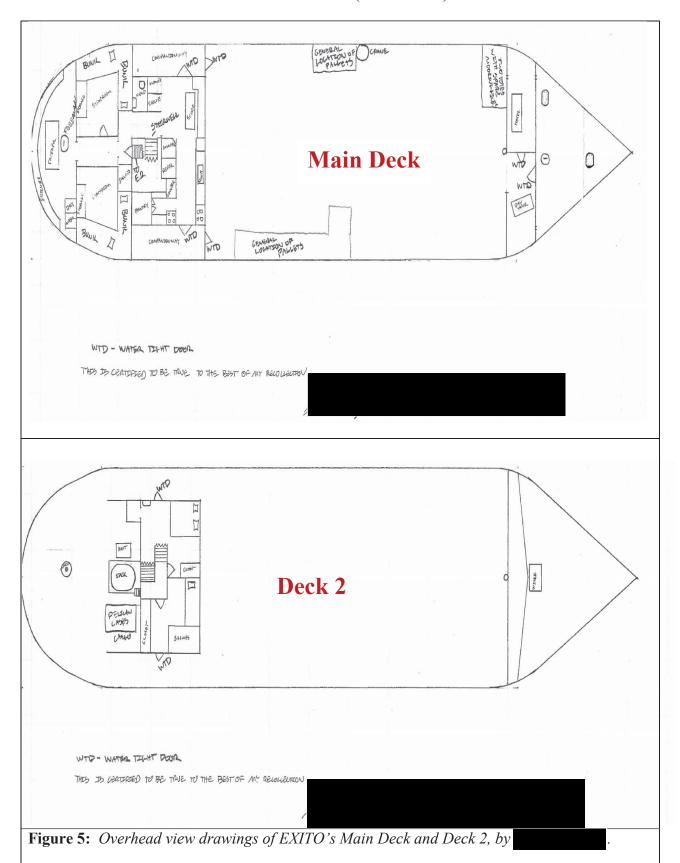
   a holder of a Merchant Mariner Credential with an endorsement as "Master of Self-Propelled Vessels Including Auxiliary Sail of Less Than 100 GRT Upon Near Coastal Waters." He had between 10 to 15 years of experience working aboard vessels, including numerous commercial fishing vessels, since he was a teenager. The EXITO was the first vessel that he sailed on as a master.
- 20. The master, Mr. , had not been trained in the proper procedures for conducting vessel drills and instruction, per requirements found in 46 CFR Part 28.270(c), prior to or while he served onboard the EXITO.
- 21. On November 1, 2016, Mr. began his employment with the owner and started working aboard the EXITO first as a crewmember for approximately four days, then as the master.
- 22. The master, Mr. \_\_\_\_\_, did not have formal training for vessel stability practices. He received on-the-job training on stability practices and procedures for the EXITO from the brothers.
- 23. On November 12, 2016, Mr. began his employment with the owner as a crewmember and started working aboard the EXITO. Mr. does not have a merchant mariner credential, and he was the only other crewmember onboard the vessel (besides the master).
- 24. Mr. was also not trained in the proper procedures for conducting vessel drills and instruction. Prior to the incident, he had not participated in emergency drills onboard the vessel and had never deployed a liferaft.

#### **Vessel Layout**

- 25. The EXITO's layout consisted of an open main deck that was used for placement of cargo and crab waste, three centerline tanks below the main deck for stowing stick-water, and a deckhouse aft.
- 26. The centerline tanks had raised steel coamings and bolt down hatch covers. A wooden decking surface was installed on top of the steel main deck flush with the coamings.
- 27. There was a deck crane with its pedestal located at about the middle of the main deck on the port-side. Access to the deckhouse, from the main deck, was through both a port and starboard-side enclosed walkway with steel watertight doors. Inside each walkway, there was another watertight door that accessed the galley space inside the deckhouse.



**Figure 4:** *EXITO Main Deck, looking forward, outlining the location of the three center-line tank covers. (note: photo was taken in May or June of 2013, while the vessel was last dry-docked).* 



- 28. In the center of the deckhouse was an internal stairwell which led down to the engine room, from the Main Deck level, or up to Deck 2 and further up to the wheelhouse. Deck 2 had watertight doors on both port and starboard sides, which opened up to the weather deck. The wheelhouse had an aft port-side door leading outside.
- 29. The vessel's only liferaft was stowed on the aft port-side of the Deck 2 weather deck.



**Figure 6:** EXITO Port-side (Location of the liferaft, aft-stored contractor's cargo, and galley).

- 30. In the vessel's forecastle, there was a small generator and fuel tank that was used to provide power for the vessel's accommodation spaces; the crew called this the "hotel generator".
- 31. The engine room consisted of two 400-horsepower Caterpillar 353 6-cylinder diesel engines which drove each propeller shaft. There were also two Caterpillar 3306 auxiliary engines which provided power to the accommodation spaces and the vessel's electrical and hydraulic systems onboard.
- 32. According to an evaluation survey issued in June 2013, the EXITO had three 5-inch electrically driven centrifugal pumps in the engine room which were connected to a common manifold for the three centerline tanks, double-bottom space, and sea chest. There were two electrically driven bilge pumps also located in the engine room, one of which was connected to

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the starboard-side ballast tank. The overboard discharge piping could be seen on the main deck. In addition to the pumps in the engine room, the vessel had portable submersible electric pumps which were used to connect to other tanks and spaces on the vessel – including the forward 10,000-gallon ballast tank and side void spaces.

- 33. There were no tank level indicators installed for the ballast tanks or void spaces. In order to determine if the tanks were empty, the master would visually check the overboard discharge lines to see if water was flowing out. In order to determine if the three centerline tanks were full, water would come out through "little manholes" on deck. According to the master, the little manholes are part of the design for crab fishing vessels.
- 34. The EXITO was fitted with high water alarms for the engine room, forward bow void, and lazarette. The audible and visual indicators for the bilge alarms were installed on the bridge (in the wheelhouse).

#### **Vessel Hull History and Loading Conditions**

- 35. A one-page list of stability instructions was produced for the EXITO in 1990, when the vessel was operating as a commercial fishing vessel.
- 36. The EXITO's steel hull construction experienced electrolysis and other deterioration, over time, which required repairs to be conducted when the vessel was under the ownership of both Mr.

  and Mr.
- 37. The owner (Mr. ) did not make changes to the EXITO's stability instructions and deck cargo loading procedures. He did not recall having any written instructions for filling the vessel's internal tanks or for ballasting operations. He developed his own procedures for loading the vessel's tanks based on his own experience and verbally shared the information with his masters.
- 38. The owner and his brother (Mr. ) were not certified welders. They learned to weld through on-the-job training while fishing and while working in a shipyard. They welded and applied epoxy materials to make repairs on the EXITO. According to Mr. welds were not tested to verify integrity.
- 39. The owner and his brother (Mr. ) made modifications to the EXITO such as converting the starboard-side fuel tank into a ballast water tank. In doing so, an opening was created between the forward portion of this tank and the void space in front of it to increase the overall capacity of the tank (to approximately 4,000 gallons).
- 40. On May 17, 2013, the owner began repair work to the EXITO while it was in dry-dock. This work was completed in June 2013. Several other projects were also completed such as the addition of the "hotel generator" on the vessel's forward bow area, removal of the "pot launcher" from its starboard-side, and modifications to the vessel's piping and bilge manifold system.
- 41. On May 29, 2013, the owner hired a third party surveyor to attend the EXITO and a condition and valuation survey report was completed on June 5, 2013. This was the last known third party, independent and/or regulatory survey of the EXITO. The surveyor provided 14

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recommendations for improvement to the vessel's equipment and six recommendations to focus on at the vessel's next dry-docking. Recommendations for hull repairs included renewing the fish hold steel hatch covers and removing double plates and replacing wasted areas with new steel.

- 42. The EXITO had six known entry/exit points from its deckhouse to the outside weather decks. On the vessel's main deck, there was an aft hatch which led up to the Deck 2 weather deck, plus port and starboard side watertight doors which led from the galley space to the main deck. On Deck 2, there were watertight doors on both the port and starboard sides that led out to the Deck 2 weather deck from state-rooms. In the wheelhouse, there was an aft port-side door leading out to a catwalk that had a ladder leading down to the Deck 2 aft weather deck.
- 43. According to witness statements, only two of the entry/exit points of the EXITO were reported to have been normally used which were the starboard-side watertight door from the galley space and the wheelhouse's aft port-side door. It was reported that the vessel's four other entry/exit points were not typically ever used and were difficult to close/open. In particular, the port-side main deck watertight door leading to/from the vessel's galley space was dogged-down tightly with a sign next to it reading "not an exit".
- 44. The EXITO's three centerline tanks were used to load stick-water. In order to fill the three centerline tanks with stick-water, each tank cover on deck would be removed and the tank would be filled through a hose from the fish processing facility. The vessel's double bottom void space was typically always full of water (either with stick-water or seawater for ballast).
- 45. The EXITO had a forward ballast tank that was typically kept full of seawater. The owner believed this tank had a 10,000-gallon capacity.
- 46. According to witness statements, it is believed that at some point in time between July and November 2016, the EXITO developed a hole in the aft portion of its starboard-side 8,000-gallon void space and water leaked into it. According to the brothers, they believed water was leaking into this space from either the vessel's double-bottom or possibly from the void space that was aft of the 8,000-gallon void space.
- 47. According to witness statements, the owner's brother (Mr. the hole in the EXITO's starboard-side 8,000-gallon void space. He also made repairs to other holes (some described as "pinholes") that had developed in the EXITO's main deck. The holes that had developed on the main deck were described as not being readily apparent to the vessel's crews due to the wooden decking that was laid over it. To repair the hole in the void space, used marine epoxy; however, the epoxy did not always hold-up and was replaced as needed.
- 48. On November 3, 2016, the owner had MAC Enterprises conduct a dive survey of the EXITO's under-hull and repaired two holes in the vessel's bottom-plating. The two holes were both described as being about an inch in diameter, and were repaired by welding doubler plates over them.

49. The reported sequence at which the EXITO's three centerline stick-water tanks were emptied was from fore to aft, typically taking between 22 to 26 minutes to pump out all three tanks if they were full.

#### Events before the day of the incident

- 50. There are limited options for travel between Dutch Harbor and Akutan either by helicopter or by vessel. Trident Seafoods owned two vessels that the company normally used to ferry people between Dutch Harbor and Akutan.
- 51. At the Trident Seafoods docks in Akutan and Dutch Harbor, Trident keeps extra lifesaving equipment (immersion suits and liferafts) that are placed on vessels traveling between the two ports when extra people are taken aboard the vessels.
- 52. On May 14, 2016, the EXITO's owner had the vessel's liferaft and Emergency Position Indicating Radio Beacon (EPIRB) serviced. The EPIRB that had been onboard the EXITO was recalled and was replaced with a new EPIRB. However, the new EPIRB was not registered with NOAA.
- 53. Trident Seafoods hired two third-party contractor companies to complete various jobs for its fish processing facility located in Akutan. The contractor personnel arrived on the island of Akutan in November 2016.
- 54. EP Mechanical and Construction Inc. sent one mechanical contractor to conduct maintenance and provide training on the furnaces/boilers at Trident's Akutan facility.
- 55. On November 30, 2016, three technicians from the company Acuren arrived in Akutan, to inspect the pipes for the ammonia refrigeration system at the Trident facility by using x-rays to determine the condition. The technicians were Mr.

  Mr. William Petty. Mr.

  was the lead technician and coordinated the logistics for the job. The arrival of their equipment was delayed by six days due to the limited loading capacity of the aircraft traveling to the area and poor weather conditions that impacted flight schedules.
- 56. The nature of Acuren's job required the use of a radioactive source for the x-ray equipment. The radioactive source equipment had special conditions for transport, one of which required an escort from a certified individual, along with proper shipping papers.
- 57. On December 5, 2016, the contractors from EP Mechanical and Construction Inc. and Acuren were presented with the opportunity, by Trident Seafoods management in Akutan, to travel back to Dutch Harbor aboard the EXITO. Just prior to the contractors being given this opportunity, the vessel had been tasked by the Trident Seafoods management with going to Dutch Harbor that day to pick-up cargo for the facility. The contractor with EP Mechanical and Construction Inc. had completed his job, while the Acuren contractors needed to return to Dutch Harbor to retrieve their equipment which had been delayed. The only mode of transportation going back to Dutch Harbor at the time that could accommodate all individuals was the EXITO.
- 58. On the morning of December 5, 2016, Trident Seafoods representative contacted the owner of the EXITO requesting that the EXITO pick-up cargo from Dutch Harbor

and deliver it to the Akutan fish processing facility. The owner agreed to the request as he also saw it as an opportunity to resupply his vessel while in Dutch Harbor.

- 59. On the morning of December 5, 2016, Trident Seafoods representative and the master of the EXITO spoke about carrying contractor employees aboard for the round trip to and from Dutch Harbor while picking-up cargo for the fish processing facility, including equipment for the contractors. The master agreed.
- 60. On the morning of December 5, 2016, Trident Seafoods delivered four immersion suits to the EXITO, prior to the contractors' arrival to the vessel, for the voyage to Dutch Harbor.
- 61. The reported sizes of the immersion suits that Trident brought to the EXITO were adult; however, the overall condition of those immersion suits were unknown. According to witness statements, there were four immersion suits that belonged to the vessel. The three recovered immersion suits, worn by the three survivors, were all originally those of the EXITO (due to having the EXITO name stenciled on them). The overall condition and sizes of any remaining immersion suits of the EXITO were unknown.
- 62. Immersion suits come in the following sizes: child, intermediate, adult, and jumbo. Adult size immersion suits have a height range of 4'11" to 6' 3" and a weight range of 110lbs to 330lbs.
- 63. The location of the immersion suits onboard the EXITO were as follows: two immersion suits were located in the wheelhouse and were assigned to the master and crewmember; six immersion suits, which included those from Trident, were located in the galley.
- 64. On December 5, 2016, between the time of 11:00 AM and 12:10 PM, four contractors boarded the EXITO while it was moored at the Trident dock in Akutan. This was their first time aboard the vessel, and first meeting with the master and crewmember.
- 65. The contractors arrived to the vessel at different times. Each contractor was provided a safety brief by the master. According to witness statements, the safety brief consisted of:
  - a. The locations of the immersion suits;
  - b. A brief verbal instruction on donning an immersion suit;
  - c. Locations of the fire extinguishers;
  - d. Location of the liferaft;
  - e. Procedures to take when the general alarm sounds which were to muster in the wheelhouse and await further instruction from the master;
  - f. Plus, the vessel's general alarm was also sounded for familiarity.
- 66. The master did not conduct drills or provide instructions to each individual onboard in accordance with 46 CFR Part 28.270(a) including, but not limited to:
  - a. Abandoning the vessel;
  - b. Minimizing the effects of unintentional flooding;
  - c. Launching survival craft;
  - d. Donning immersion suits; etc.

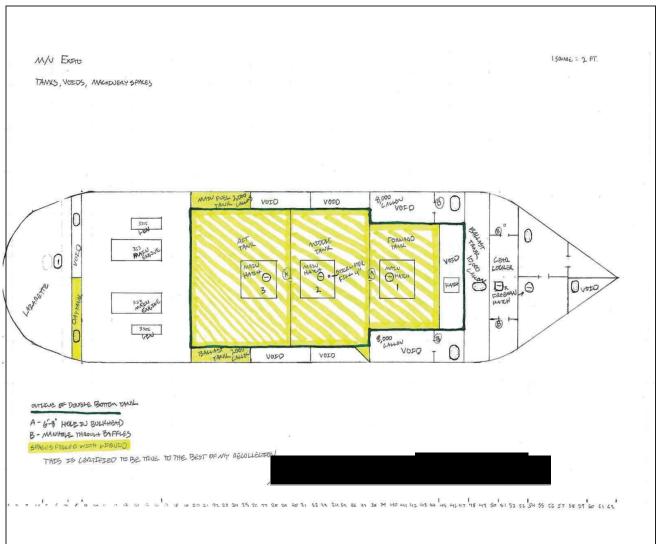
- 67. The master did not have emergency instructions for the vessel, per 46 CFR Part 28.265. The requirements would require the master to identify and assign essential actions to be taken by each individual onboard the vessel in the event of an emergency.
- 68. On December 5, 2016, prior to the vessel's departure from Akutan, the master pumped out the EXITO's starboard-side 8,000-gallon void space until he saw no water being discharged on deck. He also filled the EXITO's three centerline stick-water tanks and double bottom with seawater for ballast. The 10,000-gallon forward ballast tank was also full of water.
- 69. On December 5, 2016, at approximately 12:30 PM, the EXITO departed Akutan, en route to Dutch Harbor. According to the master, the sea state was six to ten feet, out of the northwest, and winds were 15 to 25 mph out of the northwest.
- 70. On December 5, 2016, between the time of 7:30 PM and 8:30 PM, the EXITO arrived in Dutch Harbor and moored at the Trident Seafoods dock. The owner and a relative of his were both in attendance and assisted with tying the vessel up to the dock.
- 71. As a standard practice, the owner would observe the vessel as it came into port and would conduct a quick inspection of the vessel after it was moored. The owner found no issues with the vessel after it had moored.
- 72. According to the owner's statement, the first time he become aware that the contractors were onboard for the voyage was when the vessel moored in Dutch Harbor.
- 73. The four contractors departed the vessel, after the EXITO arrived in port. A Trident Seafoods representative provided transportation for the contractors from the vessel to the Grand Aleutian Hotel in Dutch Harbor.
- 74. On December 5, 2016, water was discovered in the EXITO's starboard-side 8,000-gallon void space after the vessel docked in Dutch Harbor. The master pumped out the water through the tank hatch cover on deck via an electrically-driven submersible pump and later informed the owner.

#### Day of the Incident

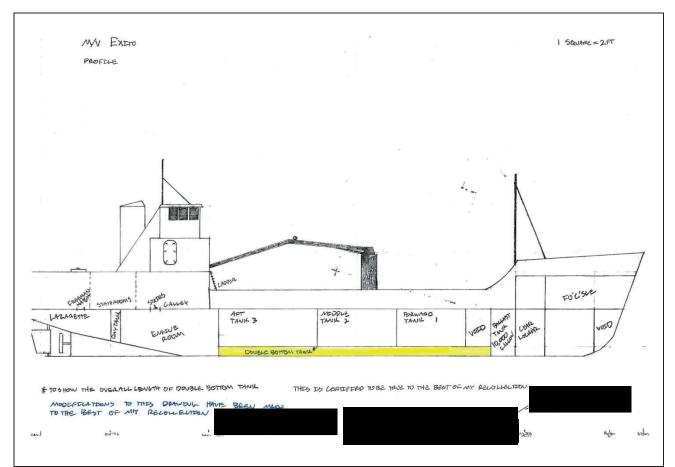
- 75. On December 6, 2016, at approximately 9:00 AM, the EXITO departed the Trident Seafoods dock and transited approximately 200 to 300 yards to the Kloosterboer facility dock in Dutch Harbor to load cargo on its main deck. The cargo was for Trident Seafoods, which included steel fittings and tubing/pipe, crates, and pallets.
- 76. On December 6, 2016, between the time of 10:00 AM and 12:00 PM, the EXITO departed the Kloosterboer facility dock and returned to the Trident Seafoods dock in Dutch Harbor to load cargo/equipment belonging to the Acuren technicians. The three Acuren contractors loaded their 11 industrial Pelican case pieces of luggage that stored their equipment and gear aboard the EXITO, on the vessel's aft starboard-side deck. The estimated weight of this equipment was from 800 lbs to 1,000 lbs.

- 77. The radioactive material, contained in x-ray equipment, was carried in a 15" x 15" x 15" Pelican case. The Pelican case contained a QSA Global, Inc. Model No.880 Series x-ray. The package was approved and certificated by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration.
- 78. Per 49 CFR Part 172.101, the identification number of the radioactive material was UN 2916 and the proper shipping name was 'Radioactive Materials'. This 100 lbs of 'Radioactive Material' was licensed and regulated by the U.S. Nuclear Regulatory Commission.
- 79. On December 6, 2016, between the time of 12:00 PM and 1:30 PM, the master and owner made the decision to pump out the EXITO's forward 10,000-gallon ballast tank. According to the master's statement, he wanted more buoyancy due to the northerly winds. The master determined that the tank was empty after observing no flow out of the discharge hose from a submersible pump.
- 80. On December 6, 2016, according to the master's statement, the owner and he checked the tides and updated weather forecast after dewatering the 10,000-gallon ballast tank. It was the intention of the master to deliver the cargo and transport the three Acuren technicians back to Akutan as soon as possible. The plan was to depart when the tide wasn't running through the Bering Sea's Akutan Pass. To his recollection, the master saw the forecast shift in wind direction and increase in wind speed for the following day. The master believed that the sea state would develop into an unfavorable condition and felt that the weather condition at the time was ideal to get underway.
- 81. On December 6, 2016, at an estimated time of 3:00 PM, a local company in Dutch Harbor, 'N/C Machine', delivered mechanical parts to the EXITO for Trident Seafoods. This cargo was packaged on top of eight pallets that included twelve barrels of ethylene glycol (coolant/antifreeze), filters, turbo chargers, and fuel injectors.
- 82. On December 6, 2016, the reported condition of the EXITO's tanks/voids prior to its departure from Dutch Harbor were as follows (see figure 7 & 8):
  - Double-bottom void space full
  - Starboard ballast tank full
  - Port-side fuel tank  $-\frac{3}{4}$  full (estimated to be at 1500 gallons)
  - Independent bow day fuel tank 1/5 full (estimated to be at 50 gallons)

- Forward "10,000-gallon" ballast tank empty
- Three centerline stick-water tanks full
- Starboard-side day fuel tank  $-\frac{1}{2}$  full (estimated to be at 450 gallons)
- Port aft sewage tank  $-\frac{1}{2}$  full (estimated to be at 150 gallons)

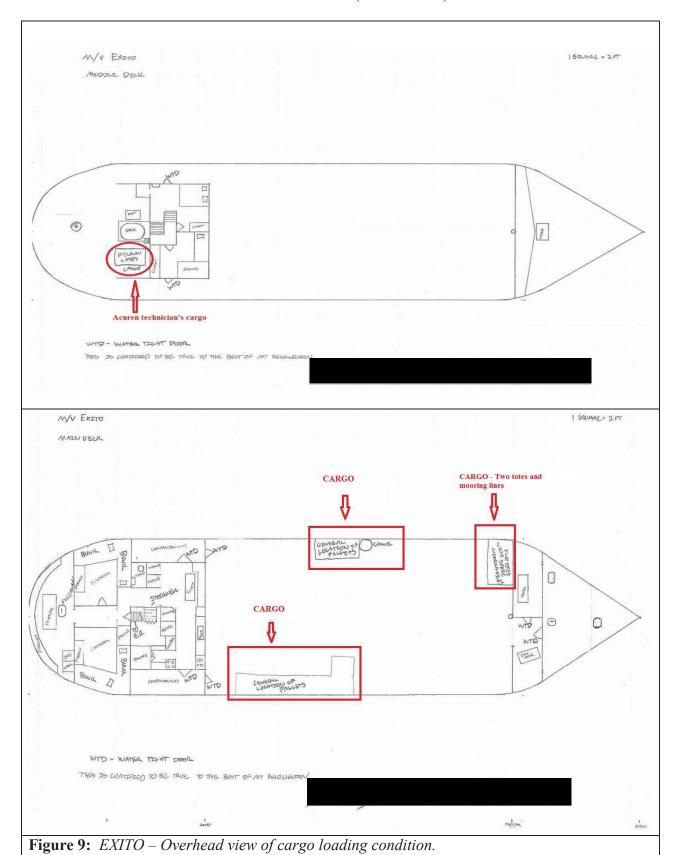


**Figure 7:** *EXITO – Overhead view of liquid loading condition (the spaces highlighted in yellow were filled with liquid).* 

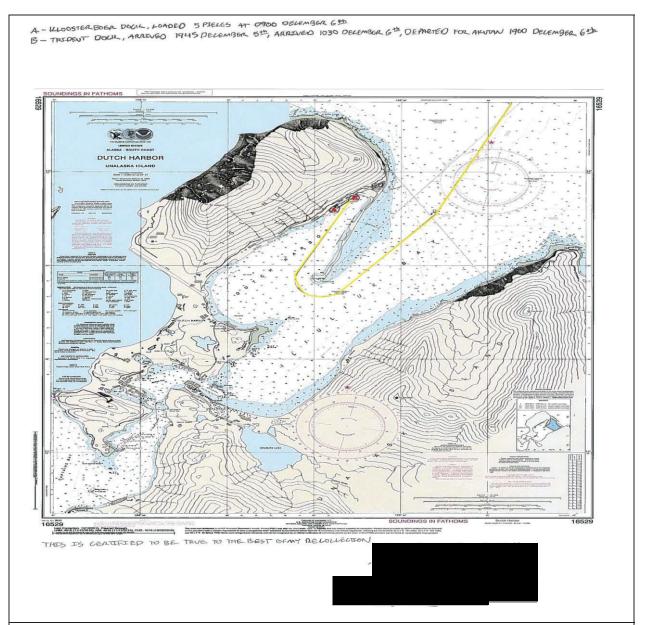


**Figure 8:** *EXITO – Side view of liquid loading condition (spaces highlighted in yellow were filled with liquid).* 

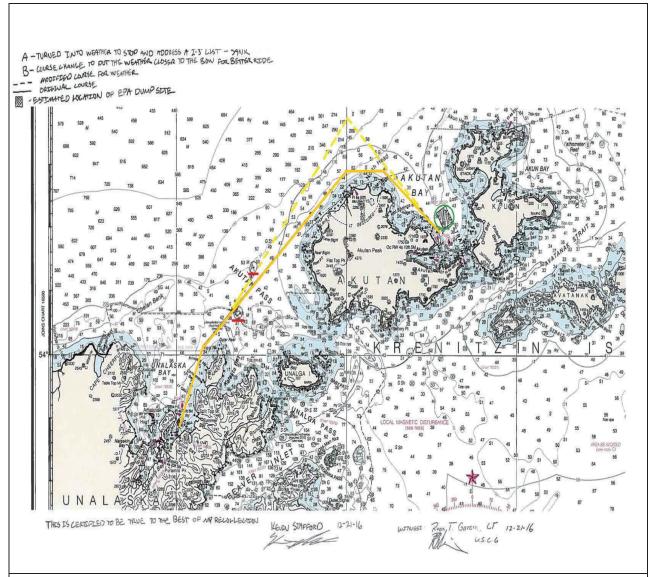
- 83. On December 6, 2016, the reported overall cargo that was loaded aboard the EXITO was estimated to have weighed from 19,000 lbs to 20,000 lbs, which included (*see figure 9*):
  - 800 lbs to 1000 lbs of Acuren technician's cargo/equipment stowed on the vessel's outside aft starboard-side deck
  - Cargo of an undetermined amount stowed mid-ships along the vessel's port-side rail.
- Estimated total cargo stowed on the vessel's main deck, in excess of 19,000 lbs, (Trident Seafoods' cargo/equipment)
- Cargo of an undetermined amount stowed mid-ships along vessel's starboard-side rail & forward along the starboard-side rail



- 84. On December 6, 2016, the reported draft condition of the EXITO just prior to its departure from Dutch Harbor was estimated to be eight feet on its stern and six to six and a half feet on its bow.
- 85. On December 6, 2016, at approximately 7:00 PM, the EXITO departed the Trident dock in Dutch Harbor en route to Akutan with five POB ( Master, crewmember, Acuren technician, William Petty Acuren technician, and Kevin Farrah Acuren technician). The master set a course as shown in figures 10 and 11.



**Figure 10:** Chart 16529 – Master's track line departing Dutch Harbor on December 6, 2016 (No charted obstructions).



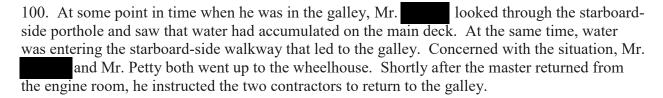
**Figure 11:** Chart 16520 – Master's track line displaying intended course and course change on December 6, 2016 (No charted obstructions).

- 86. On December 6, 2016, at an estimated time of 7:45 PM, the crewmember secured the deck. Mr. generally was in the wheelhouse interacting with the master. The crewmember provided a bunk for Mr. Farrah, who was sea sick; Mr. Farrah spent the majority of his time in one of the bunk rooms just aft of the galley. Mr. Petty split his time between the wheelhouse and interacting with the crewmember in galley.
- 87. Wave action was directed towards the port bow of the EXITO while transiting in a northeasterly direction in the Akutan Pass area of the Bering Sea. At some point in time, the EXITO began taking on water over its bow and sides from the waves.

- 88. On December 6, 2016, between the time of 8:20 PM and 9:00 PM, the master made a course correction (figure 11) after noticing a change in the vessel's stability. The EXITO did not roll back to an upright position (to port) as expected, but rather held a reported 2 to 5-degree list to starboard. The master turned the EXITO into the seas and reduced its speed.
- 89. Soon after the course adjustment, the master ordered the crewmember to go forward on deck and start the submersible electrical pump for the 10,000-gallon ballast tank and check for water in the forward spaces. Based on the crewmember's statement, the forward spaces were dry with the slight list to starboard. According to the master, he did not see any water being discharged from the submersible pump, leading him to believe that the tank was empty.
- 90. On December 6, 2016, at approximately 9:22 PM, Mr. received a call from the master. The master believed there was a problem aboard the EXITO and that his intentions at that time were to turn the vessel around and return to Dutch Harbor. At the time of this phone call, the master described the starboard list of the EXITO as having increased to about ten degrees with the bow of the vessel trimming down in the water.
- 91. Soon after the crewmember returned to the wheelhouse, the master ordered him to start the generator in the engine room.
- 92. While the crewmember worked in the engine room, another wave came over the EXITO's bow and sides that loosened cargo on the main deck, causing some cargo to shift on the deck.
- 93. The crewmember started the port-side 3306 generator. Later, the master entered the engine room to switch power from the forward hotel generator to the port-side 3306 generator. The wheelhouse was left unattended, however the master had activated the autopilot and the vessel's speed was reduced to about two and a half knots.
- 94. Upon entering the engine room, the master ordered the crewmember to secure the cargo that had shifted on deck.
- 95. After switching over the generators, the master started the bilge pump to de-water the starboard ballast tank (which was reported as being full), hoping to reduce the starboard list. After starting the pump, the master returned to the wheelhouse.
- 96. On December 6, 2016, at 9:26 PM and 9:28 PM, the owner contacted the Harbor Master for Dutch Harbor to inform him of the vessel's situation. The Harbor Master prompted the owner to contact the duty personnel at USCG MSD Dutch Harbor.
- 97. On December 6, 2016, at 9:29 PM, the owner contacted the USCG MSD Dutch Harbor duty personnel, which was the first communication to the Coast Guard regarding the situation with the EXITO. The duty personnel guided the owner to contact the USCG Sector Anchorage Command Center.
- 98. On December 6, 2016, at 9:32 PM, the owner contacted the USCG Sector Anchorage Command Center.

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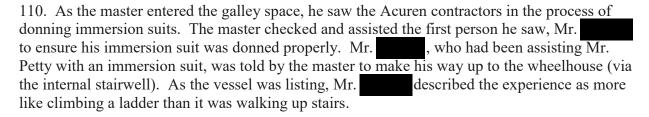
99. After leaving the engine room, the crewmember went out on the EXITO's main deck to secure the loose cargo. As the crewmember was making his way forward on the main deck, the master returned to the wheelhouse.



- 101. As the master watched the crewmember work to secure the cargo on the main deck, a wave came over the vessel's starboard rail and the water did not drain from the deck. There was enough water on deck to cover the wooden deck boards. This event triggered the master to sound the general alarm and call the crewmember via loud hailer to return from the main deck.
- 102. According to the master's statement, he believed that the vessel was "heavy" in the water. After hailing the crewmember, the master ran down into the engine room, energized all pumps, and opened all valves to pump out as much of the vessel's water that he possibly could.
- 103. According to the crewmember's statement, the vessel was listing to starboard and water was not draining from the deck. A set of wooden stairs that connected the main deck to the top of the vessel's rail came loose, and cargo was floating from the waves and water on deck. The floating items created a hazardous condition for the crewmember, who hang onto the bow ladder for safety.
- 104. The crewmember used the port-side rail as a safe route to return to the aft deckhouse. He saw that the starboard-side galley door was partially submerged underwater and that there were obstructions in front it. The crewmember used the crane to climb up onto the Deck 2 weather deck and made his way around to the wheelhouse's aft door.
- and Mr. Petty were in the galley and Mr. Farrah was reportedly asleep in the bunkroom when the vessel's general alarm sounded. Soon after the general alarm sounded, Mr. yelled to the master from the vessel's internal stairwell to ask if he wanted everyone to get into immersion suits.
- 106. After receiving an affirmative response from the master, Mr. proceeded to wake up Mr. Farrah and grabbed immersion suits under the table in the galley space for himself and Mr. Petty. Mr. donned an immersion suit in the galley space, and in the process of doing so passed another immersion suit to Mr. Farrah.
- 107. As the crewmember returned to the wheelhouse, the master was broadcasting a "Mayday" call via the VHF radio. The crewmember passed an immersion suit bag to the master; the crewmember then donned his immersion suit in the wheelhouse.
- 108. When the general alarm sounded, the EXITO's starboard list was reported to have been between 10 to 15 degrees.

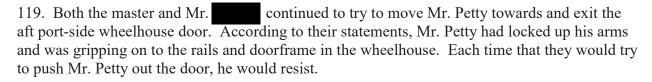
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109. According to the master's statement, he did not recall giving an order to Mr. have the contractors don immersion suits in the galley. With concern and puzzlement as to why the three Acuren contractors had not mustered in the wheelhouse, after the general alarm was sounded, the master left the wheelhouse to go to the galley.



- 111. The master then proceeded to assist Mr. Petty next with donning an immersion suit. Once complete with donning the immersion suit, Mr. Petty made his way up through the internal stairwell, receiving assistance from Mr.
- 112. According to witness statements, Mr. Petty started to display signs of physiological shock or trauma once in the wheelhouse. Mr. Petty began to physically shutdown in the wheelhouse and lowered himself to the floor. The crewmember and Mr. struggled to lift Mr. Petty to his feet.
- 113. According to the crewmember's statement, he attempted to calm Mr. Petty after Mr. Petty stated he could not swim.
- 114. After assisting Mr. Petty in donning an immersion suit, the master then assisted Mr. Farrah with donning an immersion suit. The master stated that Mr. Farrah had a suit on, but he could only get the suit zipped-up to the middle of Mr. Farrah's chest. According to the master's statement, while assisting Mr. Farrah, he saw what looked like a sign of defeat in his facial expression, as Mr. Farrah reportedly stated "I can't do this". The master stated that he provided words of encouragement to raise Mr. Farrah's confidence and try to distract from his observed distress.
- 115. While assisting Mr. Farrah, the master noticed the starboard list of the vessel had increased "quite a bit" and he immediately knew that they needed to launch the liferaft.
- 116. The master was able to assist Mr. Farrah to the bottom of the internal stairwell, while noting the urgency of the situation and need to direct the three others in the wheelhouse. The master then went to return to the wheelhouse to make sure that the liferaft would be deployed, and encouraged Mr. Farrah that he needed to make his way up the stairs too.
- 117. Once the master returned to the wheelhouse, he saw that the crewmember and Mr. were trying to get Mr. Petty to move. The master tried to assist as well, but all three individuals struggled to move Mr. Petty.
- 118. At some point, while back in the wheelhouse, the master instructed the crewmember to launch the vessel's liferaft. The crewmember exited the wheelhouse through its aft port-side door.

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- 120. At some point, the master instructed Mr. to exit and join the crewmember, who was launching the liferaft.
- 121. The master left Mr. Petty unattended and proceeded to make a second "Mayday" call. According to the master's statement, he recalled hearing the AFOGNAK STRAIT over the radio, but all he remembered hearing was the words "AFOGNAK STRAIT". The master then immediately broadcast the EXITO's position and that they were abandoning ship, via the VHF radio.
- 122. The master had donned his immersion suit while making the second "Mayday" call. After the "Mayday" call, the master made a second phone call to Mr. At this point, the master believed the EXITO was listing at an estimated 30 to 40 degrees to starboard.
- 123. On December 6, 2016, at 9:36 PM, the owner received a call from the master. The owner recalled the master stating that he couldn't fix the problem on the EXITO and that they were abandoning ship.
- 124. The crewmember was experiencing issues with launching the liferaft and called out to the master for assistance. As the master left the wheelhouse to assist the crewmember with the liferaft, he stated that he saw that Mr. Farrah had made it to the middle landing on the vessel's internal stairs, while Mr. Petty had remained in the same location on the floor of the wheelhouse adjacent to the top of the stairwell.
- 125. The master stated that after exiting the wheelhouse, through the aft port-side door, the vessel's list to starboard had increased to about 45 degrees.
- 126. At some point in time, the EXITO reportedly lost all electrical power when the master, crewmember, and Mr. were all on the vessel's aft deck launching the liferaft.
- 127. The master assisted the crewmember with throwing the EXITO's liferaft into the water. Immediately after this, the master proceeded to make his way back to the wheelhouse for Mr. Petty and Mr. Farrah.
- 128. As the master made his way back to the wheelhouse's aft door, the EXITO was at an approximate 90-degree angle to its starboard-side. Seawater rose and engulfed the master (who was just at the outer opening of the aft wheelhouse door), the crewmember and Mr. (who were both on the EXITO's aft deck).
- 129. On December 6, 2016, at approximately 9:45 PM, the un-registered EPIRB from the EXITO reportedly activated and provided a distress signal that was detected by the Air Force's Rescue Coordination Center.

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- 130. On December 6, 2016, between approximately 9:36 PM and 9:45 PM, the EXITO sank in the Akutan Pass area of the Bering Sea approximately 4.72 NM north of Priest Rock (Unalaska Island).
- 131. The master, crewmember, and Mr. were in the water. They regrouped, regained their bearings as best as possible, and spotted the EXITO's deployed liferaft. The three men swam to the liferaft.
- 132. At some point in time, once all three had entered the liferaft, the master fired off two of the emergency flares that were part of the liferaft's equipment.
- 133. The flares were seen by Mr. , the master of the nearby commercial fishing vessel AFOGNAK STRAIT. According to Mr. , the seas were 10 to 12 ft with 35 mph winds.
- 134. On December 6, 2016, at approximately 10:44 PM, the master, crewmember and Mr. were rescued from the EXITO's liferaft by the crew of the fishing vessel AFOGNAK STRAIT. The GPS position of this event was reported to be at: 54-04.470N, 166-20.363W.

### U.S. Coast Guard Search and Rescue & Pollution Response Actions

- 135. Coast Guard Sector Anchorage Command Center did not hear distress calls from the EXITO over the radio frequencies.
- 136. On December 6, 2016, at approximately 9:42 PM, Coast Guard District 17 assumed Search and Rescue Mission Coordinator, after being notified from Coast Guard Sector Anchorage of the marine casualty.
- 137. The National Oceanic and Atmospheric Agency assisted in the pollution response by providing trajectory reports to determine the nearby coastlines that the vessel's debris may be sighted.
- 138. District 17 issued an Urgent Marine Information Broadcast requesting assistance by vessels in the area. The following four nearby commercial fishing vessels responded: COMMITMENT, AFOGNAK STRAIT, BLUE NORTH, and NORTHERN LEADER. All four vessels were involved in the search pattern developed by District 17.
- 139. District 17 launched several SAR assets, which included Coast Guard Cutter ALEX HALEY, two CG MH-60T helicopters, one CG HH-65 helicopter, and one CG C-130 aircraft.
- 140. SAR efforts to locate both Mr. Petty and Mr. Farrah were negative.
- 141. On December 8, 2016, at approximately 7:50 PM, the District 17 Chief-of-Staff suspended the active search.
- 142. Reportedly, the EXITO had onboard approximately 2,200 gallons of diesel fuel and other oil products, twelve 55-gallon barrels of ethylene glycol and one x-ray imagining machine containing a radioactive element. There were no affirmative reports of oil or hazardous materials seen on or in the water.

- 143. According to witness statements, the Pelican case containing the radioactive element was secured to the vessel and would have sank with it. Coast Guard Sector Anchorage determined that the radioactive material onboard was not a threat to life, environment, or national security after receiving concurrence from the U.S. Nuclear Regulatory Commission.
- 144. District 17 Coast Guard assets were deployed in duration of over 70 hours and covered 207 square nautical miles in search of the people, vessel, debris, and oil.

# Law and Regulatory History

- 145. 46 CFR 67.11(c) states: a vessel that is less than 100 feet in length and is a fishing vessel, fish processing vessel, or fish tender vessel (as defined in 46 U.S. Code § 2101) must meet the fishery endorsement requirements set out in this part (46 CFR Part 67); each vessel 100 feet and greater in length applying for a fishery endorsement is regulated by the Maritime Administration requirements found in 46 CFR Part 356.
- 146. 46 U.S. Code § 2101(11c) and 46 CFR Part 28.50 defines "fish tender vessel" as: a vessel that commercially supplies, stores, refrigerates, or transports fish, fish products, or materials directly related to fishing or the preparation of fish to or from a fishing, fish processing, or fish tender vessel or a fish processing facility.
- 147. 46 CFR 356.3(i) (MARAD regulations) defines "fishing vessel" as: a vessel of 100 feet or greater in registered length that has or for which the owner is seeking a fishery endorsement to the vessel's documentation and that commercially engages in the planting, cultivating, catching, taking, or harvesting of fish, shellfish, marine animals, pearls, shells, or marine vegetation or an activity that can reasonably be expected to result in the planting, cultivating, catching, taking, or harvesting of fish, shellfish, marine animals, pearls, shells, or marine vegetation.
- 148. 46 CFR 356.3(l) defines "fish tender vessel" as: a vessel 100 feet or greater in registered length that has or for which the owner is seeking a fishery endorsement to the vessel's documentation and that commercially supplies, stores, refrigerates, or transports (except in foreign commerce) fish, fish products, or materials directly related to fishing or the preparation of fish to or from a fishing industry vessel or a fish processing facility.
- 149. 46 CFR 67.3 defines "fisheries" as: including processing, storing, transporting (except in foreign commerce), planting, cultivating, catching, taking, or harvesting fish, shellfish, marine animals, pearls, shells, or marine vegetation in the navigable waters of the U.S. or in the Exclusive Economic Zone.
- 150. The Magnuson-Stevens Fishery Conservation and Management Act is the primary law governing marine fisheries management in U.S. federal waters. NOAA Fisheries has been mandated to implement management systems and develop guidelines for each National Standard.
- 151. The term "fisheries", as defined under Magnuson-Stevens Fishery Conservation and Management Act (16 U.S. Code § 1802 (3)(12)), means one or more stocks of fish which can be treated as a unit for purposes of conservation and management and which are identified on the

basis of geographical, scientific, technical, recreational, and economic characteristics; and any fishing for such stocks.

- 152. The term "fishing", as defined under Magnuson-Stevens Fishery Conservation and Management Act (16 U.S. Code § 1802 (3)(16)), means:
  - (A) the catching, taking, or harvesting of fish;
  - (B) the attempted catching, taking, or harvesting of fish;
  - (C) any other activity which can reasonably be expected to result in the catching, taking, or harvesting of fish; or
  - (D) any operations at sea in support of, or in preparation for, any activity described in subparagraphs (A) through (C).
- 153. The term "fishing vessel", as defined under Magnuson-Stevens Fishery Conservation and Management Act (16 U.S. Code § 1802 (3)(18)), means any vessel, boat, ship, or other craft, which is used for, equipped to be used for, or of a type which normally used for fishing; or aiding or assisting one or more vessels at sea in the performance of any activity relating to fishing, including, but not limited to, preparation, supply, storage, refrigeration, transportation, or processing.
- 154. Section 312(b) of the Magnuson-Stevens Fishery Conservation and Management Act authorizes the Marine Fisheries Service (aka NOAA Fisheries) to conduct a fishing capacity reduction program, also known as a "buy-back" program. The intention of such a program is to prevent or end overfishing. Vessels which are included as being part of a "buy-back" program can no longer participate in the "fisheries", as defined in 16 U.S. Code § 1802 (3)(12).
- 155. The term "commercial fishing industry vessel", as defined under 46 CFR 28.50, means a fishing vessel, fish tender vessel, or a fish processing vessel. Within 46 CFR 28.50, the term "fishing vessel" means a vessel that commercially engages in the catching, taking, or harvesting of fish or an activity that can reasonably be expected to result in the catching, taking, or harvesting of fish.
- 156. 46 U.S. Code § 12113 (g) (Vessels Purchased Through Fishing Capacity Reduction Program) states: a vessel purchased by the Secretary of Commerce through a fishing capacity reduction program under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S. Code § 1801 et seq.) or section 308 of the Interjurisdictional Fisheries Act of 1986 (16 U.S. Code § 4107) is not eligible for a fishery endorsement, and any fishery endorsement issued for that vessel is invalid.
- 157. 46 U.S. Code § 3304(d) states, a fish tender vessel that transports not more than 12 individuals employed in the fishing industry in addition to the crew is not subject to inspection as a passenger or small passenger vessel.
- 158. 46 U.S. Code § 5102(b) (5) exempts a fish tender vessel from load line requirements if the vessel is not more than 500 Gross Regulatory Tonnage that
  - (A)(i) was constructed, under construction, or under contract to be constructed as a fish tender vessel before January 1, 1980; or

- (ii) was converted for use as a fish tender vessel before January 1, 1983; and
- (B) (i) is not on a foreign voyage; or
  - (ii) is not engaged in the Aleutian trade (except a vessel in that trade assigned a load line at any time before June 1, 1992).
- 159. On January 10, 2006, Customs and Border Protection (CBP) made a ruling (HQ 116596) that a vessel hauling valueless stick-water to an approved dump site was determined to be not "engaging in the fisheries" and was hauling merchandise, therefore needed a coastwise endorsement (on its COD) only.
- 160. Coast Guard District 17 has determined that stick-water falls under the description as "...materials directly related to...the preparation of fish to or from...a fish processing facility", per the definition of 'fish tender vessel' from 46 CFR 28.50.

### Post-Casualty Drug and Alcohol Testing

- 161. On December 7, 2016, at approximately 1:20 AM, post casualty alcohol testing was conducted for the master and crewmember of the EXITO. The master of the AFOGNAK STRAIT administered the test utilizing 'ALCO SCREEN 02' saliva testing strips. Both test results were negative for the presence of alcohol.
- 162. On December 7, 2016, at 12:15 PM and 12:24 PM respectively, the master and the crewmember of the EXITO conducted a Department of Transportation five-panel drug test at the Iliuliuk Family Medicine clinic in Unalaska, AK. Results were negative for the presence of drugs for both individuals.

#### **Analysis:**

<u>Material Condition</u>: Based on witness statements, the vessel suffered from corrosion issues, which were believed to be from stray current corrosion, along with poultice corrosion from the secondary wooden deck. Grounding issues in the vessel's electrical system would result in stray current that would have perpetuated wastage of the vessel's steel. Poultice corrosion occurs when a saltwater saturated organic mass is in contact with metal for long periods of time. The risk with a wooden secondary (or "false") deck is that seawater can be absorbed, become stagnant, and lie against the metal surface for a long period of time. The metal can degrade in a relatively short period of time, thus posing the potential of compromising the main steel deck. The owner did not have a maintenance plan to visually inspect the condition of the main deck and the last known record of the owner removing segments of the wooden secondary decking was in 2013.

Witnesses confirmed that the EXITO experienced numerous instances, during the last several years, where repair work was necessary to address wastage or holes within the vessel's hull, main deck, bulkheads, and other structural members. There were recommendations to renew damaged or affected steel with inserts from a 2013 third-party survey report; however, the report did not specify the details. Permanent structural repairs that were made to the vessel did not have USCG or recognized classification society oversight, and it is believed that repairs were not

made to USCG or classification society standards while it was under ownership by the current or previous owners. Repairs included the use of doubler plates welded onto the vessel and use of marine epoxy (a common application used in the fishing industry) to fill holes in structural components of the vessel. Much, if not all, of the known and reported steel work or welding repairs that were affected to the EXITO during the last few years were conducted without following American Society of Mechanical Engineers (ASME) or American Welding Society (AWS) welding procedures or performance qualifications. Welds were never tested and it is unknown what the overall condition of the repair work was. The owner stated that his method for sounding the thickness and determining the adequacy of the vessel's steel construction was by simply hitting the metal with a sledgehammer.

Watertight Integrity: One material issue that is believed to have been a contributing factor to the sinking of the EXITO was a hole that had developed in one of the vessel's forward starboard-side void spaces, which was reported to have had a capacity of 8,000 gallons. Mr. , the vessel's previous master, noticed a slight list of the vessel to starboard, which initiated an inquiry by the vessel's crew and owner and lead to the discovery of water in the starboard-side void space. Water was believed to have leaked into the void space from either the vessel's double-bottom (which was typically kept full of water) or from the adjacent void space (to the aft). Mr. repaired the hole using marine epoxy when it was first discovered several months before the sinking incident. He stated that the first filling did not hold and believed that it was due to the pressure of water on the repair. He had to refill the hole with epoxy at least one additional time.

Based on the above analysis, there is a possibility there could have been down flooding into other tank spaces within the vessel. Apparent issues with the vessel's watertight integrity and wastage should have been addressed by permanent means by both the owner and the master. The fact that the owner and the master allowed the vessel to operate knowing that water leaked into the starboard-side 8,000-gallon void space shows their untimely manner of addressing watertight integrity issues. Witness statements that claimed to have seen water entering the vessel's house structure, at the main deck's starboard-side watertight door while it was closed, on the day prior to the incident support this analysis.

Incidentally, during the course of this investigation, a somewhat similar occurrence (concerning a listing vessel with main deck hull wastage) also occurred on the fishing vessel WIZARD (O.N. 594470). On the WIZARD, a wasted hole on the vessel's outside main deck allowed water to unknowingly enter into one of the vessel's starboard-side tank spaces, thus creating a slight starboard list of the vessel until that vessel's crew could identify the cause. The wasted hole on the WIZARD's deck was not readily noticeable to that vessel's crew in part due to that vessel's secondary (or "false") wooden decking obscuring it.

<u>Instability:</u> The total estimated time from when it was first believed that the vessel may have had a problem during its voyage on December 6, 2016, to when it completely sank underwater was 40 to 45 minutes. In that time frame, it is believed that the situation began to escalate after the master made the first phone call to the owner. The total time that would have elapsed between this first phone call and when the vessel was completely underwater was between 20 and 25 minutes. During this time, the master took actions to de-water the starboard ballast tank and later took actions to discharge all liquids from the vessel's tanks that were connected via the

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main piping manifold in the engine room; this included the vessel's three centerline tanks and double-bottom. By the time the EXITO sank underwater, it had turned or rolled approximately 90 degrees to its starboard-side.

A comparison was made between the voyages on December 5, 2016, and December 6, 2016. On December 5, 2016, the EXITO had more weight onboard as the 10,000-gallon forward ballast tank was filled with water. In theory, this would lower the vessel's vertical center of gravity and improve stability. On December 6, 2016, the EXITO got underway with the 10,000-gallon forward ballast tank empty and additional cargo weight located on top of its aft and main decks. In theory, this would raise the vertical center of gravity and impact the vessel's stability. However, the impact is unknown without a stability book to analyze. Another difference between the voyages on December 5, 2016, and December 6, 2016, was the wave direction. On December 5, 2016, the waves were from the stern of the EXITO and on December 6, 2016, the vessel was heading into the seas as waves were on the port bow. There was no significant difference in wave height and wind speed. Investigators believe that the loading condition and weather conditions had minimum effect to the primary cause of the vessel's sinking; however, it should be noted that the majority of the vessel's cargo weight was reported to have been placed on its starboard-side.

The master stated that during the voyage on December 6, 2016, the vessel experienced a roll and held a starboard list, and that the vessel started to feel "heavy". According to witness statements, the forward starboard-side 8,000-gallon void space was known to have taken on water (including on December 5, 2016) leading up to the vessel's sinking. It is believed that water entering into the 8,000-gallon void space contributed to the EXITO having a slight starboard list. The water in this void space was monitored by the masters of the EXITO and pumped-out as needed. This led investigators to believe that the EXITO was taking on water on December 6, 2016, but the rate of any water ingress was unknown. Based on the hull condition and watertight integrity analysis, water could also have been entering other voids or tanks unknowingly. The waves, which were impacting the vessel, could have placed an amount of water onto the vessel's main deck, thus possibly allowing more water to enter the vessel's internal tanks. Another plausible scenario is that repairs made to the bulkhead in the starboard-side 8,000-gallon void space completely failed – causing progressive flooding from either the adjacent stick-water tank(s) or double bottom tank.

Typically tanks should be full or completely empty to reduce free surface effect. According to witness statements, at some point water was no longer draining from the main deck, which could mean that the main deck was at the same level as the waterline. When the vessel began to list to starboard and sink by the bow, the master stated that he wanted to get as much water off as possible. He attempted to achieve this by first proceeding to de-water the vessel's starboard-side ballast tank and then later activated and opened all of the EXITO's internal de-watering pumps to pump out water from the centerline stick-water tanks and double-bottom. The effort to pump out the starboard-side ballast tank to decrease the starboard list may have negatively affected the vessel's ability to right itself. The removal of weight on the listing side, with a lower center of gravity, while not removing the opposing weight (i.e. of the port-side fuel tank) with a higher center of gravity would also decrease the vessel's stability. Additionally, the pre-departure effort of emptying the 10,000-gallon forward ballast tank raised the center of buoyancy, while adding cargo on the vessel's main deck raised the center of gravity relative to the vessel's keel; both

actions decreased stability. The EXITO would have had several different locations experiencing a free surface effect, including the starboard-side 8,000-gallon void space and then later with the vessel's starboard-side ballast, centerline stick-water tanks and double-bottom when they were being pumped out. Removing or redistributing liquid weight while the EXITO was rolling from port to starboard would significantly change the dynamics of the vessel. As the buoyancy changed, the vessel's ability to right itself would have been negatively impacted.

Mr. was an experienced seafarer and had sailed on numerous vessels, including as crewmember on several different fishing vessels in Alaska. The EXITO was his first time sailing as a master. Mr. received formal training and is a holder of a Merchant Mariner's Credential for a Master of 100 GRTs. However, his knowledge on vessel stability was limited to on-the-job training. The EXITO had a stability instruction letter (and possibly a stability book), as per the regulations for a vessel over 79 feet, when it operated as a commercial crab fishing vessel. However, any such documentation was lost with the vessel. There was no update for a stability letter and stability book after the vessel's change in service (after it was part of the "buy-back" program). Typically, commercial fishing vessel masters rely on experience and instinct to manage a vessel's stability. Mr. had no training or experience with stability for the EXITO prior to his employment, and he had relied upon verbal information that had been passed along to him from the owner and the owner's brother. There were no known procedures or reference materials to base any decisions related to cargo stowage or liquid load distribution on the vessel, except for a dated stability instruction letter believed to have been from the vessel's employment as a crab-fishery vessel.

<u>Load Line Requirements</u>: The EXITO was originally constructed in 1956 for use as an oil field vessel in the Gulf of Mexico region; as such, the vessel had previously been a USCG inspected vessel that also maintained an approved Stability Letter and Load Line Certificate up until the late 1980's. In the late 1980's the vessel was purchased and converted for use as a commercial fishing vessel, and in particular as a crab fishing vessel. At the end of 2004, the EXITO's fishing rights were purchased as part of a NOAA "buy-back" program, which meant it could no longer participate in the 'fisheries', per the definition under the Magnuson Stevens Act.

As the EXITO was being operated as a 'fish tender vessel', it was applicable to the load line requirements as set forth in 46 U.S. Code Chapter 51 and 46 CFR Subchapter E. The EXITO was a vessel of 188 GRT. The application of the load line requirements exempts fish tender vessels of not more than 500 GT, but only if the vessel was "...constructed, under construction, or under contract to be constructed as a fish tender vessel before January 1, 1980 or converted for use as a fish tender vessel before January 1, 1983, and is not on a foreign voyage or engaged in the Aleutian Trade." Given that the EXITO was not originally constructed or converted for use as a fish tender vessel within the aforementioned dates, the load line requirements would have been applicable to the vessel.

As part of maintaining a Load Line Certificate to operate, which the EXITO should have had, the vessel would have been required to have current/updated stability data and information (i.e. a Stability Letter and Stability Instructions), along with a minimum of annual structural surveys to maintain a Load Line Certificate. Any repairs or replacement work done in conjunction with structural elements of the vessel (i.e. the vessel's steel hull, decks, bulkheads, etc.), that are

included as part of the load line requirements, had to meet USCG and recognized classification society standards.

The EXITO's owner/operator did not indicate an awareness that the vessel would have been required to comply with load line requirements, nor did he indicate that he knew the applicability requirements. It is common in the commercial fishing industry for owners to not be familiar with all of the intricacies of the U.S. Code and Code of Federal Regulations. In the past several years there have been several other commercial fishing industry vessels that have been identified as operating without a Load Line Certificate that may have required them (similar to the EXITO). However, the Coast Guard does not have clear direction from Congress on how to handle these unregulated vessels. In addition, conflicting definitions and applicability of regulations have made it difficult to understand when certain regulations apply, making it difficult for Coast Guard and third-party commercial fishing vessel examiners to apply the correct regulatory regime. The commercial fish tender fleet has increased in both District 13 and District 17 in the past few years and commercial fishing vessel examiners are now more attuned to the requirements, finding multiple owners operating vessels that are not exempted from the load line requirements.

Emergency Drills: The EXITO was classified as an uninspected commercial fishing tender, therefore subject to the requirements in 46 CFR 28.270(a). Per that regulation, "(t)he master or individual in charge of each vessel must ensure that drills are conducted and instruction is given to each individual on board at least once each month." While conducting drills, the master can evaluate communications, lifesaving equipment, skill-set, the condition of each person onboard, and overall teamwork and identify best courses of action to respond to different emergencies. In participating in drills, the individuals onboard have an opportunity to evaluate their lifesaving equipment for use and familiarize themselves with the different lifesaving equipment onboard, while also becoming familiar with their roles and responsibilities in order to be efficient in an actual emergency situation; it also subjects the individuals onboard, in a controlled environment, to test their ability to work with others.

The required written emergency instructions are the foundation for the safety orientation, providing the individuals onboard with procedures on how to properly respond to various emergencies, and identify the roles of each individual in emergency events. Conducting drills based on the emergency instructions provides repetition and reinforces the proper actions to be taken into the individual's memory. The EXITO was required to have written emergency instructions onboard, but the vessel and master failed to meet the requirement.

The individual conducting the drills or providing instruction is required to be properly trained, as per 46 CFR 28.270(c). There was no individual onboard the EXITO that could provide documented evidence of having completed a formal course to meet this requirement. However, the master felt that he was qualified due to his overall seafaring experience, as an experienced fisherman, and the fact that he was a U.S. Coast Guard credentialed 100 GRT Master.

According to witness statements, the individuals onboard did not conduct emergency drills prior to getting underway on December 5, 2016, from Akutan; the individuals onboard also did not conduct emergency drills prior to getting underway on December 6, 2016, from Dutch Harbor.

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Prior to departing Akutan on December 5, 2016, the master did provide a safety briefing for the four contractors who first came onboard on that day; however, the safety briefing did not meet the standard of a 'safety orientation', as required per 46 CFR 28.270. The 'safety orientation' must explain the emergency instructions, with requirements for such, outlined in 46 CFR 28.265.

On the night of the marine casualty there was a breakdown in communication, which was a contributing factor for two of the individuals' inability to abandon ship. According to the master, the general alarm was sounded but the crew in the galley did not muster in the wheelhouse with immersion suits in hand, as he had verbalized during the safety briefing he gave the previous day. According to Mr. after the general alarm sounded, he sought confirmation from the master if he'd want the three contractors in the galley area to get into immersions suits. At that point in time the master was likely distracted with the multiple tasks and thoughts. Given the overall nature of the situation, it is highly likely that the master simply replied 'yes', without also instructing the three contractors to proceed to the vessel's wheelhouse first (prior to donning their immersion suits). When Mr. asked the master the question, it likely disrupted the frame of mind that the master was in and possibly affirmed Mr. question without even cognitively knowing he provided his response. The master himself admitted that the situation may have happened in this manner.

The transpiring events for the three contractors to don immersion suits in the vessel's galley space reduced their survivability odds as it added more time to their emergency response and ability to egress from the vessel while it experienced an increasing list. While in the galley, assisting the contractors who had never previously donned an immersion suit, the master was in a position where he could not have full situational awareness during a point where the situation was greatly worsening. All of the individuals onboard had to rely on the master, as he was the most knowledgeable person onboard. This consumed the master's time during the approximately 20 to 25 minutes just prior to the vessel being loss.

Had drills been properly conducted, the individuals onboard would have been trained to react appropriately after hearing the general alarm and better able to respond on their own without having to wait for the master's assistance. The three contractors had to confirm with the master on the appropriate actions to take and needed assistance to don the immersion suits. The crewmember, who had sailed with the master for a few weeks, had not gone through emergency vessel drills nor did he know how to deploy the vessel's liferaft. As a result, the master was needed to help deploy the liferaft. This time could have been used to focus on getting the remaining two individuals off of the vessel.

The overall condition, fit, and size of the immersion suits that Mr. Petty and Mr. Farrah donned is not known. The only immersion suits recovered were the three immersion suits worn by the survivors, which belonged to the EXITO. Although it is commonly thought that the size for the immersion suit that Mr. Farrah had on was possibly too small for him, it could have potentially had an issue with its condition (i.e. the zipper may not have operated properly – if the zipper is not properly maintained, it can render it extremely difficult to zip-up). Highlighting this, proper emergency instructions and actual emergency drills (including donning the life-saving equipment) would have helped to identify any potential issues with immersion suit size, fit, and condition.

Alternate Means of Escape: There was no emergency exit signage on the EXITO; conversely there was signage on one potentially useable means of escape (the galley's port-side watertight door) indicating that it was "not an exit". Had the contractors been informed of alternate (or all) means of escape from the vessel's deckhouse, they possibly could have exited the vessel via a separate means other than the wheelhouse's aft door. Mr. Farrah, whom the master told to follow him up the stairs, attempted to climb them, but was only known to have made it as far as the middle landing at the Deck 2 (or middle deck) level. This may have indicated an attempt and will on his part to survive. The contractors were not briefed about any alternate means of escape and, as a result, critical time was lost in trying to access the wheelhouse by way of two decks of stairs while the vessel's progressively worsening starboard list would have rendered the last flight of stairs from the Deck 2 (or middle deck) level extremely difficult to climb.

Health of Individuals Onboard: Based on witness statements, both Mr. Farrah and Mr. Petty experienced psychological trauma that affected their ability to abandon ship. Mr. Petty froze on the bridge as the three survivors desperately tried to get him outside. His resistance to exit the wheelhouse may have been triggered thinking that the next step to survival was entering the water; although not medically proven, investigators learned from witnesses that Mr. Petty had a fear of the water and did not know how to swim. Mr. Farrah was reluctant to move from the galley while he was donning the immersion suit. It is unknown what the overall health condition of Mr. Farrah was prior to the incident. Based on witness statements, Mr. Farrah may have felt defeated, with low morale, when it came to survival. The fact that the immersion suit, which was explained to him to be key equipment for survival, did not apparently fit or zip-up properly may have significantly demoralized him. Fear would have possibly set in his mind if he felt that he was unable to physically climb the stairwell at an incline and then survive the elements once he abandoned ship.

According to witness statements, Mr. Farrah was seasick and Mr. Petty was feeling at least some of the symptoms of seasickness. Seasickness can cause dizziness and fatigue while adrenaline in the situation can impact people differently. An individual can exert a lot of energy while on adrenaline, which would have likely been needed to climb the stairwell. Donning an immersion suit limits an individual's movement and it takes a physical toll on the body. Having an immersion suit on would take any individual longer to climb up an inclined stairwell. Additionally, they would need energy to brave the outside elements, which (for the survivors) included swimming to the deployed liferaft.

Properly conducting emergency drills would have increased the chance of survival, in order to overcome the physiological and psychological challenges. The individuals onboard should have been familiar with their emergency equipment and have had the reassurance that equipment worked and fit properly. Drills would have also given the master the opportunity to assess the overall physical condition of each individual and change emergency procedures as necessary to increase the probability of survival for all. When individuals aboard vessels conduct drills they should gain a sense of the dangers and can use the opportunity to evaluate themselves, ultimately determining if they are ready for such events.

<u>VHF Coverage in the Aleutian Chain</u>: The Coast Guard did not hear the VHF radio distress calls from the EXITO. Given the vast, mountainous, and sparsely populated coastline of the Aleutian

chain, and the line of sight limitations of VHF radio, the Coast Guard's ability to maintain a continuous monitoring of VHF channel 16 is limited in this area. However, for some mariners that use and work in these waters, it may not be widely known what the limitations are for station to station VHF radio coverage. The fact that the EXITO sank in an area where there were other vessels nearby maintaining a VHF radio watch, and still within the limited cell phone reception range in the area, was elemental to the survivability of the persons who did escape the vessel. Operators and crews in the Aleutian chain and Bering Sea need to be aware of the limitations of VHF coverage and need to be prepared to communicate by other means during emergencies.

While this investigation was proceeding, conversations with several other commercial fishing vessel operators in Dutch Harbor indicated potential gaps in awareness for vessel crews to possibly communicate with the Coast Guard via alternate communications (besides VHF radio) in an emergency. In some instances, vessel masters expressed that they were aware of the need to utilize alternate communication means (i.e. their satellite telephones), but may not have had them readily available or were unaware of the best direct phone numbers to call a Coast Guard Sector or District Command Center in the event of an emergency. Additionally, when asked, some vessel masters acknowledged that while they may be aware of how to use their satellite telephone communications, their crewmembers onboard were not. Current vessel regulations addressing procedures for making distress calls, emergency broadcasts, and crew familiarization based on VHF radio procedures and are not inclusive of alternative means of communication.

Accountability of the charter party: The EXITO was employed by Trident Seafoods for the carriage of stick-water and cargo only. The charter agreement did not set forth any requirements for the vessel to carry Trident employees or its contractors. The agreement further required that any officers and crew on the vessel be employees of the owner, Aleutian Endeavors, LLC. The vessel owner stated that he was not aware that the contractors were on board the EXITO until they had arrived in Dutch Harbor from Akutan on December 5, 2016. When asked if he had addressed this with Trident, the owner stated that he did not and felt that he was committed to having to take them back to Akutan. Although the master and owner accepted the responsibility for carrying persons with no maritime survival training, familiarity, or experience – a task different from what the vessel was contracted for – Trident Seafoods did not assess the risk or the conditions of the charter agreement with the EXITO. Further, Trident Seafoods typically used its own vessels for the transportation of its employees between Akutan and Dutch Harbor and did not normally use vessels they did not own, crew, or maintain.

Maritime Domain Awareness: The premise of the Coast Guard's commercial fishing vessel safety oversight program is to conduct industry outreach in order to reach compliance. Commercial fishing vessel examiners use different resources to advertise safety exams to the commercial fishing industry. Some fishermen learn through word of mouth and reach out to Coast Guard units on their own. Over the past five years, commercial fishing vessel examiners from USCG Sector Anchorage have made efforts to visit ports rumored to have fishing vessels that operate in its area of responsibility. It is often by word of mouth from other fisherman or port engineers at the different fish processing companies that examiners are able to find the best point of contact for vessels.

The interaction between the examiners and vessel operators is critical to preventing accidents. Commercial fishing vessel examiners educate the masters and crews on best practices for vessel operations and survivability. In addition, examiners evaluate hull conditions, stability, lifesaving equipment and emergency drills (amongst other things) and provide recommendations for improvement. If necessary, a Captain of the Port Order can be issued to vessels to restrict their operations until hazardous conditions are corrected.

The NVDC issues CODs to vessel owners and it is the only entity within the Coast Guard organization that is a central hub for information of vessels that come into commercial service. Once a COD has been issued, the NVDC also creates the vessel profile within the Coast Guard's MISLE data base. The vessel's hailing port is indicated on the COD; however, some vessels operate and moor outside of their hailing port for extended periods. This can make it challenging for Coast Guard inspectors or examiners to interact with a vessel, its owner, or crew. There is no communication between the NVDC and the Coast Guard field units (i.e. Officers in Charge, Marine Inspection – OCMIs) when a commercial vessel is issued a new COD. Typically, commercial fishing vessel examiners are made aware of a vessel in their area of responsibility (AOR) once the owner/operator schedules a safety exam. The examiner could then add the vessel to their fleet-of-responsibility and update the vessel profile, if necessary, in MISLE.

<u>Certificate of Documentation Application Process</u>: During the investigation, investigators subpoenaed records from the NVDC, which included previously completed COD applications. The EXITO's owner seemed to recognize that he could not apply for a 'fishery' operational endorsement and did not select the box for such on the application, but his general understanding as to why he could not do so was unclear. On his COD application, the owner selected "Unclassified Vessel" as the EXITO's 'primary service'. On the COD application form used, the only two options to select from for a vessel's 'primary service' regarding any commercial fishing industry vessel operations is either "Commercial Fishing Boat" or "Fish Processing Vessel".

The NVDC would be the first to know that the EXITO may never engage in any fishing activity. Based on the applications that were submitted, the information would not trigger any indicators that the EXITO was participating in the 'fisheries', as defined under the Magnuson-Stevens Act.

NOAA initially stated that stick-water disposal operations were viewed as an activity that engaged in a "fishery", and then said it wasn't. This leaves the question as to whether a proper assessment was conducted prior to issuing the COD.

<u>Inspected vs. Uninspected</u>: In this analysis, several scenarios are presented that depicts the challenges and the thought process that inspectors and investigators experienced to determine if the EXITO should have been treated as an inspected or uninspected vessel. As stated in the preliminary statement, the vessel's operations and COD are evaluated to make a determination. OCMIs do their best to align their regulatory enforcement with other federal agencies and incorporate their interpretations of laws and regulations into their determinations. Listed are different topics and scenarios that were discussed amongst inspectors and investigators:

- a) One of the issues involved during this investigation was conflicting interpretation of laws and regulations amongst three different federal organizations: the Coast Guard, the Maritime Administration (MARAD), and NOAA. NOAA includes laws and regulations from the Magnuson Stevens Act into their governing body. Investigators reached out to MARAD and NOAA for additional guidance on interpretation of their regulations, and found that both agencies did not have internal policies to clarify some of the nuances with the laws and regulations involved. In some instances, and similar to occurrences within the Coast Guard, there were inconsistencies amongst members within the other agencies and email documentation had become a form of policy. During the investigation, some of the representatives from MARAD and NOAA only provided verbal guidance. According to MARAD, Customs and Border Protection (CBP) is involved during the evaluation, if needed, prior to assigning the vessel endorsement(s). The MARAD representative also stated that, "MARAD does not do physical investigations to ensure vessels are operating in accordance with their requested endorsements, but if a vessel does not request to operate according to MARAD's definitions then they could be operating illegally." Ultimately, the NVDC makes the final decision to assign the proper endorsement(s) on a vessel's COD since the vessel documentation is a function of the Coast Guard.
- b) Investigators navigated through the regulations to determine if the EXITO was assigned the correct endorsement(s). Under 46 CFR 67.11(c): a vessel that is less than 100 feet in length and is a fishing vessel, fish processing vessel, or fish tender vessel (as defined in 46 U.S. Code § 2101(11c)) must meet the fishery endorsement requirements set out in 46 CFR Part 67; each vessel 100 feet and greater in length applying for a fishery endorsement is regulated by MARAD, with requirements found in 46 CFR Part 356. In the EXITO's case, the vessel would have been regulated by MARAD if it was applying for a 'fishery' endorsement. The conundrum goes back to whether a proper assessment was done during the COD application process, as previously stated, and what was the Coast Guard's perspective on the applicability of a 'fishery' endorsement.
- c) The term 'fishing vessel' has three different definitions between MARAD regulations, the Magnuson Stevens Act, and Coast Guard regulations as shown in Findings of Fact (FoF) #147, #153, and #155. The Coast Guard regulation breaks the term "commercial fishing industry vessel" into three different categories: "fishing vessel", "fish tender

vessel", and "fish processing vessel". The term "fish tender vessel" has two different definitions between Coast Guard regulation (which is aligned with the U.S. Code) and MARAD regulations — as shown in FoF #146 and #148. In the definition of "fish tender vessel", under Coast Guard regulations, the statement, "...materials directly related to fishing or the preparation of fish to or from a fishing, fish processing, or fish tender vessel or a fish processing facility", is open for interpretation by the local OCMI. There was a disparity amongst inspectors and investigators if stick-water operations fell under this definition.

It is also worth noting that in CBP ruling 'HQ 116596', the following two issues were addressed:

- 1) Whether transportation of waste water constitutes an engagement in the 'fisheries' within the meaning of 46 U.S. Code § 12101(a) (1)?
- 2) Whether transportation of waste water constitutes the coastwise transportation of merchandise pursuant to 46 U.S. Code App 883?

In this ruling, the description of waste water is the same as stick-water. The results were that the transportation of waste water (stick-water) was not an engagement in the 'fisheries' and waste water constitutes transportation of merchandise. Some inspectors and investigators had the same thought process as CBP, based on whether or not the activity was an engagement in the 'fisheries'. However, some inspectors and investigators would lean towards NOAA's determination, given that the remarks on the vessel's COD regarding the "buy-back" program was a NOAA function. If the Coast Guard applied the NOAA definition to stick-water operations, then it would not fall under the definition of "fish tender vessel." During this investigation, NOAA was engaged by investigators to get their determination on stick-water operations. NOAA considered stick-water operations as engagement in the 'fisheries'; therefore, according to NOAA, stick-water operations would be "materials directly related to fishing" because it was viewed as an activity that engages in the 'fisheries'. However, later in the investigation NOAA changed their ruling.

d) MARAD defines 'fishing vessel' based on vessel length, vessel operation, and a 'fishery' endorsement on the COD. MARAD defines the term 'fish tender vessel' for operations and is similar to the Coast Guard's definition. However, MARAD's definition specifically applies to a vessel of 100ft or greater and having a 'fishery' endorsement. The Magnuson Stevens Act definition of 'fishing vessel' excludes the aid to fish processing facilities, as it states: "...aiding or assisting one or more vessels at sea in the performance of any activity relating to fishing, including, but not limited to, preparation, supply, storage, refrigeration, transportation, or processing." Although there is no definition for 'fish tender vessel', under the Magnuson Stevens Act, some inspectors and investigators found a correlation and believed the definition of 'fishing' (FoF #152) would be applicable, in that stick-water operations could be considered an operation at sea in support of, or preparation for an activity which can reasonably be expected to result in the catching, taking, or harvesting of fish.

- e) Another debated topic was whether an uninspected commercial fishing industry vessel was required to have a 'fishery' endorsement in order to be able to operate as such. Some commercial fishing vessel examiners strongly believed that if a commercial fishing industry vessel did not have the 'fishery' endorsement (as the case with the EXITO), per Coast Guard regulations (FoF #149), then it meant the vessel should be an inspected vessel (having a 'coastwise' endorsement). This thought would align with the intent of the MARAD regulations. Some examiners would also incorporate the 'fisheries' and 'fishing' definitions (FoF #151 and FoF #152) in their assessment. Therefore, participation in the 'fisheries', as defined under the Magnuson Stevens Act, requires the 'fishery' endorsement. For the EXITO's case, the notion was supported as the COD had specific remarks that the vessel was part of a "buy-back" program and could no longer participate in the 'fisheries' (as shown in FoF #156).
- f) The other perspective was that a vessel is to be considered as either inspected or uninspected primarily based on the vessel's operation, size and propulsion, based on the definitions and applicability's under the Coast Guard's vessel inspection regulations. Following this line of thought, the EXITO's operations met the definition of a 'fish tender vessel', and therefore as an uninspected vessel. Under 46 CFR Subchapter C (for Uninspected Vessels), and 46 CFR Part 28, there is no specific regulation that requires a commercial fishing industry vessel to have a 'fishery' endorsement (as defined under 46 CFR Part 67.3) to be considered as such. A vessel's COD endorsement(s) is needed to allow the vessel to participate in a specific type of commerce, but it does not dictate its classification or inspection status. For example, and in challenging the previous paragraph's line-of-thought concerning the COD endorsement(s), if having a 'coastwise' endorsement would translate into being an inspected vessel, then all passenger vessels that are less than 100 GRT and carry six or less passengers for hire (aka 'Uninspected Passenger Vessels' or '6-pack operators') should then be inspected.
- g) At the time of the incident, there were three contractors onboard the EXITO; this presented another topic for debate. Since the determination was made that the EXITO was a 'fish tender vessel', it was allowed to carry up to 12 individuals (in addition to the crew) onboard and was not subject to inspection as a passenger or small passenger vessel, per 46 U.S. Code § 3304 (d). This law is not familiar to most commercial fishing vessel examiners. The issue was whether third party contractors met the applicability in the law as, "...individuals employed in the fishing industry." According to the master's statement, he felt that there were no issues with allowing the contractors to sail onboard based on the fact that the contractors and the EXITO were all contracted by Trident Seafoods (which would be in line with the definitions described in 46 U.S. Code § 2101(21) (c)). It is worth noting that as an uninspected 'fish tender vessel', the EXITO subjected the contractors to safer regulations compared to the Coast Guard's small passenger vessel (46 CFR Sub-chapter T) regulations because the uninspected vessel regulations treated the contractors as crew and not passengers. This meant the contractors were required to participate in emergency drills and to carry immersion suits where the Sub-chapter T regulations do not require the same for passengers.

All the information and supporting documents, pertaining to the differences of definitions and opinions of the inspectors and investigators, was presented to the USCG District 17 Legal office to make final determinations. In addition, two questions were asked:

- 1) Can the EXITO be a 'fish tender vessel' without having a 'fishery' endorsement?
- 2) Should the EXITO have been considered an inspected vessel?

District 17 personnel objectively focused on whether or not stick-water operations met the definition of a 'fish tender vessel'. The concept of an "activity engaged in the fisheries" (from the NOAA "buy-back" program) had no weight in their determination. As stated in the preliminary statement, the EXITO was considered to be a 'fish tender vessel', and did not require having a 'fishery' endorsement to operate as such. However, District 17 advised that this issue be presented to Commandant for a final determination – as this issue could impact several Districts and the commercial fishing vessel industry nation-wide.

Lastly, 46 CFR Part 28 – Subpart G is another regulation that should be considered in the question of whether the EXITO should have been an inspected vessel or uninspected vessel. The regulation applies to Aleutian Trade Act Vessels (vessels engaged in 'Aleutian trade'). Per the definition found in 46 CFR 28.50, 'Aleutian trade' means: "transportation of cargo, including fishery related products, for hire onboard a fish tender vessel to or from a place in Alaska west of 153 degrees West longitude and east of 172 degrees East longitude if that place receives weekly common carrier service by water, to or from a place in the United States, except a place in Alaska". Under 46 CFR 28.800 there appears to be a difference between the terms that tie into different exemption requirements for inspections and load line application. There are several additional requirements that would exempt a fish tender vessel from being inspected if it engaged in the 'Aleutian trade' and there is ambiguity with the load line exemption requirements. Coast Guard examiners and inspectors, third-party commercial examiners, and members of the commercial fishing industry find it incredibly difficult to properly sift through the numerous and conflicting regulations to properly apply them to the various vessels engaged in the Aleutian Trade.

Regulatory Knowledge: The laws and regulations for commercial fishing industry vessels can be complex and confusing both to industry and to the Coast Guard. Based on the fact that the EXITO had operated in the same type of capacity under its previous owner for several years with no lasting intervention from any federal agency, the current owner and master saw no issues related to continuance of the operations it was engaged in. Both the current and previous owner had limited knowledge on the regulations that were applicable to its operation as a 'fish tender ) knew about certain basic safety requirements vessel'. The current owner (Mr. the vessel would need, in particular for emergency and lifesaving equipment, but he did not have a complete understanding of how the EXITO should have been regulated and the breadth of the applicable regulations. Interviews were conducted with various members of the commercial fishing industry that did not have a direct link to the EXITO. They described a level of knowledge and understanding of the regulations similar to Mr. . They were not aware of the load line requirements and were not familiar with the definitions or meanings of the endorsements found on a COD.

USCG District 17 is starting to see more 'fish tender' vessels come into service. As a result, commercial fishing vessel examiners and investigators need to be well-versed in the various regulations and exemptions pertaining to such vessels. For example, during the course of this investigation several other vessels were discovered operating as 'fish tender' vessels in and around Dutch Harbor. Additional attention is being directed at these vessels to determine the proper regulatory regime. Some regulations are vaguely written, imbedded within other agency regulations, and are challenging to interpret correctly. Since there is no guidance or policy from Coast Guard Headquarters specific to some of these issues, Sectors and Districts may interpret the regulations differently. Coast Guard units sometimes also have the issue of conducting business through "policy by email". As discovered during the investigation, there is a history of former Coast Guard Marine Safety Office (MSO) Anchorage addressing the same issues with detailed interpretations of the regulations. Currently, there is no national or District policy regarding a definitive explanation of the regulatory requirements for these types of vessels. There is also the challenge of dealing with other federal agencies that have their own regulations pertaining to the fishing industry. Often times these definitions are different, causing confusion and misapplication of the regulations. At the time of the incident, a majority of the examiners and investigators at District 17 were unaware of the correlation between Coast Guard and MARAD regulations in 46 CFR Part 67. Thus, MARAD regulations had to be incorporated during the decision making process. Other federal agencies, such as NOAA, do not have written policy on the interpretation of their regulations – which leads to inconsistencies amongst NOAA employees. Again, Sector OCMIs can run into the challenge of not being fully aware of the vessels that operate within their area of responsibility.

More must be done to clear up these various issues of conflicting definitions in the regulations and conflicting policy amongst the agencies. It is unreasonable to assume the commercial fishing industry will be completely knowledgeable of the applicable vessel regulations and operational requirements when Coast Guard personnel have so much difficulty in fully understanding and applying these same regulations.

# **Conclusions:**

In accordance with reference (a), the initiating event (or first unwanted outcome) for this casualty was a material failure of the hull and structural members of the EXITO. The causal factors that led to this casualty are:

- 1. Procedures (Software): There was one error identified as a causal factor:
  - a. The EXITO failed to comply with the load line requirements, per 46 U.S. Code § 5102.
- 2. Equipment (Hardware): There was one equipment causal factor identified.
  - a. The vessel experienced steel wastage.
- 3. Environment: There were no environmental causal factors identified.
- 4. Personnel (Liveware): There was one human error identified as a causal factor:

- a. The owner, Mr. EXITO's hull and watertight bulkheads by permanent means.
- 5. The first subsequent event (or next unwanted outcome) was progressive flooding into the internal tanks/void spaces of the EXITO.
  - a. The starboard-side 8,000-gallon void space was not watertight.
- 6. The second subsequent event (or next unwanted outcome) was the sinking of the EXITO. The relevant causal factors contributing to this event were:
  - a. There was no updated stability information, instructions, or procedures available to the vessel's master/individual-in-charge.
  - b. The vessel was listing to starboard due to progressive flooding and weight imbalance.
  - c. Free surface effect was occurring in slacked tanks.
  - d. The vessel's stability worsened as the master discharged all vessel tanks at the same time.
- 7. The third subsequent event (or next unwanted outcome) was the death of two individuals onboard. The relevant causal factors contributing to this event were:
  - a. The crewmember and contractors onboard were inexperienced at sea and not properly trained to respond to emergency situations prior to getting underway.
  - b. The master lost situational awareness while assisting the contractors in the galley resulting in a delayed response to the emergency.
  - c. The vessel's motion and increasing starboard list hampered the evacuation off the vessel.
  - d. The sea state, temperature, and darkness conditions were factors in the survivability of all individuals onboard.
- 8. The investigation revealed the following:
  - a. Per 46 CFR 15.805, every self-propelled seagoing documented vessel over 200 GRT is required to have a Master with valid USCG Credential. Since the EXITO was 188 GRT, the Master of the vessel was not required and was not acting under the authority of any USCG Credential during the incident.
  - b. No acts of misconduct, incompetence, negligence, unskillfulness, or willful violation of law committed by any Coast Guard personnel, including an officer or an employee, contributed to the cause of the incident;
  - c. Several acts subjecting an offender to a civil penalty under the laws of the United States have been committed; including negligent vessel operation, failing to comply with vessel load line regulations, and failing to have an installed AIS onboard the vessel.

d. Evidence that a criminal act under the laws of the United States may have been committed.

# **Safety Recommendations:**

- 1. It is recommended that Commandant make updates to Form CG-1258 "Application For Initial, Exchange, Or Replacement Of Certificate Of Documentation; Redocumentation", used by the National Vessel Documentation Center. Updates would harmonize the terminology on the form to match terminology used in the field and provide an additional nexus to provide maritime domain situational awareness to field units. As an example, and specifically during this investigation, investigators found several vessels operating as 'fish tender vessels' that were misrepresented by their documented classification and 'service' within the MISLE database. The descriptive information contained in the CG-1258 form that is used to populate MISLE data fields for 'classification' and 'service' does not currently match the regulatory terminology used in the form. To resolve these errors, the changes on the form must include the following:
  - (a) Add "fish tender vessel" or "fishing industry tender vessel" in section 'K' of the CG-1258 form.
  - (b) Change "commercial fishing boat" to "commercial fishing vessel" in section 'K' of the CG-1258 form.
  - (c) Update the other vessel descriptions in section 'K' of the CG-1258 to align exactly with the terms and definitions in the applicable vessel inspection subchapters in 33 and 46 CFRs (i.e. change "freight ship" to "cargo vessel", in accordance with 46 CFR Subchapter I).
  - (d) Also, include a new block or category on the CG-1258 form for applicants to state the vessel's primary operating area (or where it would normally or primarily be moored/docked) to correspond with the OCMI zones identified in 33 CFR Part 3. This information could then be utilized to provide a nexus to inform local OCMIs of vessels with new, updated, or changed CODs operating commercially in their areas of responsibility.
- 2. It is recommended that Commandant establish a notification procedure or method through which the NVDC can easily provide information to OCMI offices of new, updated, or exchanged, CODs that are issued for commercial operations. A gap in maritime domain awareness exists throughout the Coast Guard and commercial vessels have been found operating in an AOR for extended periods of time unbeknownst to the local OCMI. NVDC notification to the local OCMI could improve maritime domain awareness and improve regulatory compliance, thus increasing safety. It could also improve MISLE data accuracy. In addition, timely notification of the OCMI could confirm details of an owner's application for COD and ensure that a vessel owner does not operate outside the COD.
- 3. It is recommended that Commandant complete a comprehensive review and update to the MISLE software to ensure the input of accurate information into the database for a vessel's 'classification' and 'service'. Current MISLE drop-down options for vessel 'classification' and 'service' needs to be simplified and better aligned with exact regulatory vessel description language/definitions and not create automatic defaults (especially to the vessel's

'service') which in some instances currently misrepresent what the vessel actually does. The current MISLE drop down options for this are: "Classification"; - "Type"; - "Subtype"; which will then 'default' to a specific "Service".

MISLE is the primary tool that Coast Guard personnel use to identify a vessel's 'service', which also feeds Coast Guard Business Intelligence (CGBI) inspections cube queries; however, if the information in MISLE is not always accurate (as it pertains to a vessel's 'service') it can potentially cause personnel to not be able to properly identify possible issues or oversights with specific vessels. Identifying and correcting inaccurate 'defaults' of vessel 'service' in MISLE and simplifying the drop-downs for "classification", "types" and "subtypes" will ensure that personnel (and the Coast Guard in general) can accurately query, obtain, and utilize MISLE data to ensure proper regulatory oversight action is taken.

- 4. It is recommended that there be coordination between Commandant and PACIFIC AREA to conduct a feasibility study regarding the enhancement of VHF radio coverage in the area surrounding Unalaska and Akutan Islands. Communications within this area are severely hindered by lack of VHF radio coverage (from station to station) outside of about five miles (line-of-sight) in unobstructed conditions, thus limiting the resources to make a distress call or communicate in emergency situations. To improve communications for maritime stakeholders, the study should consider the effectiveness of reestablishing a "high-site" radio tower in the area.
- 5. It is recommended that Commandant (CG-CVC-3) direct the development and implementation of policy for OCMIs to use as a resource to evaluate vessel commercial activities for vessels that operate as a 'fish tender vessel', as defined in 46 CFR Part 28. To prevent inconsistencies on the interpretation of the regulations throughout the Coast Guard, the policy must provide guidance on what goods or commodities can be or are considered as "materials" that can be carried by a fish tender vessel, including the limitations and the requirements to be an uninspected commercial fishing industry vessel. The policy should also specifically address carriage of stick-water and hazardous materials.
- 6. It is recommended that Commandant (CG-CVC-3) direct the development and implementation of a compliance program for 'fish tender' vessel owners and operators to meet the requirements of load line laws and regulations. This would include both Coast Guard and industry awareness outreach as to the application of load line laws and regulations for vessels operating as fish tenders. A substantial portion of the 'fish tender' fleet is comprised of small entity vessel owners/operators, and most vessels that were not built or converted as a 'fish tender' vessel prior to 1980 (thus requiring a load line). Meeting load line requirements is a costly expense for small entity owners/operators. The Coast Guard should provide a solution that will promote commerce and not place financial hardship for owners/operators impacted by load line requirements.
- 7. It is recommended that Commandant evaluate the Coast Guard licensing exam for 100 GRT Masters, to consider adding stability and damage stability questions to the exam. Masters should be expected to have some knowledge and understanding on the principles of stability to enhance their response to emergencies onboard a vessel.

- 8. It is recommended that Commandant, PACIFIC AREA, District 17, and District 13 engage with MARAD and NOAA to harmonize terminology and definitions in law (U.S. Code) and the Code of Federal Regulations (CFRs) applicable to commercial fishing industry vessels.
- 9. It is recommended that District 17 assist field units in conducting industry outreach to the commercial fishing industry and processors in Alaska to expand their awareness of regulations applicable to their vessels and operations. This outreach could include public outreach events and information on the applicability of load line laws and regulations.
- 10. It is recommended that there be coordination between District 17 and the Marine Safety Center to issue a "Lessons Learned" document on the best marine practices for maintaining and ensuring the satisfactory material condition of a vessel's main metallic deck if there is a secondary (or "false") wooden deck placed over/atop it.
- 11. It is recommended that District 17 issue a Navigation Safety Advisory in regards to operating outside of normal VHF radio coverage areas and that alternate communication means is necessary. Vessel crews should be readily aware of what means and direct numbers to contact Coast Guard Command Centers on, in the case of an emergency; and all vessel crew members should be fully aware of how to effectively execute emergency communications via alternate means.

### **Administrative Recommendations:**

- 1. It is recommended that Sector Anchorage take enforcement action against the owner of the EXITO (at the time of the incident) for failing to comply with the load line requirements per 46 U.S. Code § 5102, and failing to comply with AIS requirements per 33 CFR 164.46.
- 2. It is recommended that Sector Anchorage take enforcement action against the master of the EXITO (at the time of incident) for failing to comply with the following:
  - a. Operating a vessel in a negligent manner as to endanger the life, limb, or property of a person in accordance with 46 USC 2302(a).
  - b. Failure to conduct drills in accordance with 46 CFR 28.270(a);
  - c. Failure to have written emergency instructions in accordance 46 CFR 28.265;
  - d. Failure to provide a safety orientation to each individual onboard in accordance with 46 CFR 28.270(e).
- 3. It is recommend this case be referred to District 17(l) for review and possible referral to initiate action in accordance with 46 CFR 4.23 to the U.S. Attorney's Office for Seaman's Manslaughter, per 18 USC 1115.
- 4. It is recommended that this casualty investigation be closed.

5. In accordance with 46 U.S. Code § 6308; notwithstanding any other provision of law, no part of a report of a marine casualty investigation conducted under 46 U.S. Code § 6301, including the findings of fact, opinions, recommendations, deliberations, or conclusions, shall be admissible as evidence or subject to discovery in any civil or administrative proceedings, other than an administrative proceeding initiated by the United States.

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