



UNITED STATES COAST GUARD

**REPORT OF THE INVESTIGATION INTO THE SINKING
AND LOSS OF LIFE ONBOARD THE
COMMERCIAL FISHING VESSEL (CFV)
CONCH'RD (NJ8244GN), APPROX. 15 MILES
EAST OF CAPE MAY, NEW JERSEY, ON
DECEMBER 03, 2020**



U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

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

16732/IIA #7107811
16 January 2026

**CAPSIZING AND SINKING OF THE COMMERCIAL FISHING VESSEL CONCH'RD
(NJ8244GN) AND SUBSEQUENT LOSS OF ONE LIFE WHILE FISHING IN THE
ATLANTIC OCEAN APPROXIMATELY 15 NAUTICAL MILES NORTHEAST OF
CAPE MAY, NEW JERSEY ON DECEMBER 3, 2020**

ACTION BY THE COMMANDANT

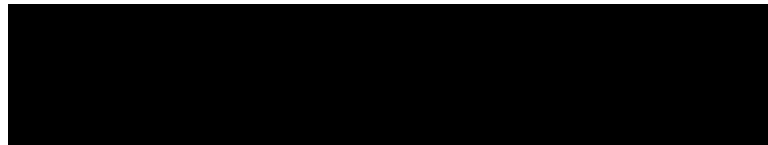
The record and the report of the investigation completed for the subject casualty have been reviewed. The record and the report, including the findings of fact, analysis, conclusions, and recommendation, are approved subject to the following comments. This marine casualty investigation is closed.

ACTION ON RECOMMENDATION

Administrative Recommendation 1: It is recommended that, upon closure of this investigation, the Commandant provide a copy of this report to the National Oceanic and Atmospheric Administration (NOAA), the National Commercial Fishing Vessel Safety Advisory Committee (NCFVSAC), the National Association of Marine Surveyors (NAMSGlobal), the Society of Accredited Marine Surveyors (SAMS), and the New Jersey Department of Fish and Wildlife (NJDEP).

Action: I concur with this recommendation. A copy of the Report of Investigation will be provided to NOAA, NCFVSAC, NAMSGlobal, SAMS, and NJDEP for their awareness. It will also be available to the public at the following website:

<https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/Office-of-Investigations-Casualty-Analysis/Marine-Casualty-Reports/>.



E. B. SAMMS
Captain, U.S. Coast Guard
Chief, Office of Investigations & Casualty Analysis (CG-INV)



16732
December 9, 2025

**LOSS OF LIFE ONBOARD THE COMMERCIAL FISHING VESSEL (CFV)
CONCH'RD (NJ8244GN), APPROX. 15 MILES EAST OF CAPE MAY, NEW JERSEY
ON DECEMBER 03, 2020.**

ENDORSEMENT BY THE COMMANDER, COAST GUARD EAST DISTRICT

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, conclusions, and recommendations are approved. It is recommended that this marine casualty investigation be closed.

ENDORSEMENT ON RECOMMENDATIONS

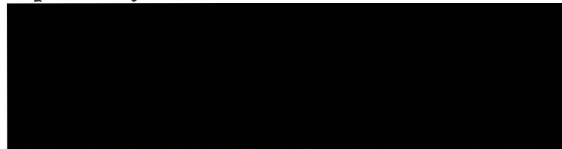
Administrative Recommendation 8.2.1. It is recommended that the Commandant provide a copy of this report to the following upon closure:

NOAA
Commercial Fishing Vessel Advisory Committee
National Association of Marine Surveyors
Society of Accredited Marine Surveyors
New Jersey Department of Fish and Wildlife

Endorsement: Concur. Upon closure of this investigation, I recommend the Commandant provide a copy of this report to the aforementioned agencies. Disseminating this report to these stakeholders will help educate the commercial fishing vessel community. Sharing the lessons learned from this tragic incident can have a significant impact on safety and support informed decision-making within the commercial fishing vessel community.

Administrative Recommendation 8.2.2. Recommend this investigation be closed.

Endorsement: Concur. The Coast Guard East District agrees with the analysis and conclusions of the Investigating Officer and the endorsement of the Officer in Charge, Marine Inspection. No further action is required by the Coast Guard.



MATTHEW J. MESKUN
Captain, U.S. Coast Guard
Chief, Prevention Division

Enclosures: (1) Endorsement by the Officer in Charge, Marine Inspection
(2) Executive Summary
(3) Investigating Officer's Report



16732

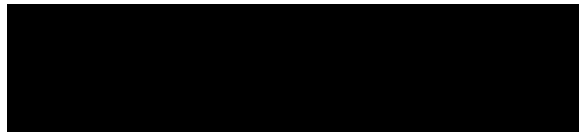
**LOSS OF LIFE ONBOARD THE COMMERCIAL FISHING VESSEL (CFV)
CONCH'RD (NJ8244GN), APPROX. 15 MILES EAST OF CAPE MAY, NEW JERSEY,
ON DECEMBER 03, 2020**

ENDORSEMENT BY THE OFFICER IN CHARGE, MARINE INSPECTION

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, conclusions, and recommendations are approved subject to the following comments. It is recommended that this marine casualty investigation be closed.

COMMENTS ON THE REPORT

1. I extend my sincerest condolences to the family and friends of the mariner who lost their life in this accident. This report contains detailed information, analysis, and a finding of concern recommendation, all of which are intended to prevent similar tragedies from occurring in the future.



K. F. HIGGINS-BLOOM
Captain, U.S. Coast Guard
Officer in Charge, Marine Inspection

Enclosures: (1) Executive Summary
(2) Investigating Officer's Report of Investigation

TABLE OF CONTENTS

Section	Page
List of Acronyms	iii
Executive Summary	v
1. Preliminary Statement	1
2. Vessel(s) Involved in the Incident	2
3. Deceased, Missing, and/or Injured Persons	3
4. Findings of Fact	3
4.1. The Incident	3
4.2. Additional/Supporting Information	12
5. Analysis	17
6. Conclusions	32
6.1. Determination of Cause	32
6.2. Evidence of Act(s) or Violation(s) of Law by Any Coast Guard Credentialed Mariner Subject to Action Under 46 USC Chapter 77	34
6.3. Evidence of Act(s) or Violation(s) of Law by U.S. Coast Guard Personnel, or any other person	34
6.4. Evidence of Act(s) Subject to Civil Penalty	34
6.5. Evidence of Criminal Act(s)	34
6.6. Need for New or Amended U.S. Law or Regulation	34
6.7. Unsafe Actions or Conditions that Were Not Causal Factors	34
7. Actions Taken Since the Incident	34
8. Recommendations	35
8.1. Safety Recommendations	35
8.2. Administrative Recommendations	35

LIST OF ACRONYMS

Acronym	Title
CFV	Commercial Fishing Vessel
CG	Coast Guard
CGC	Coast Guard Cutter
D5CC	USCG District Five Command Center
EPIRB	Emergency Position Indicator Radio Beacon
FV	Fishing Vessel
FRP	Fiber Reinforced Plastic
GM	Metacentric Height
GPS	Global Positioning System
GT	Gross Tons
HP	Horsepower
HRU	Hydrostatic Release Unit
LE	Law Enforcement
MHz	Megahertz
MSC	Marine Safety Center
NJDFW	New Jersey Department of Fish and Wildlife
NOAA	National Oceanic and Atmospheric Administration
PFD	Personal Flotation Device
POB	Persons on board
SAR	Search and Rescue
SDBCC	USCG Sector Delaware Bay Command Center

SERT	Salvage Engineering Response Team
Acronym	Title
STA	Station
USC	United States Code
USCG	United States Coast Guard
USMCC	United States Mission Control Center
VHF	Very High Frequency



16732
September 30, 2025

**LOSS OF LIFE ONBOARD THE COMMERCIAL FISHING VESSEL (CFV)
CONCH'RD (NJ8244GN), APPROXIMATELY 15 MILES EAST OF CAPE MAY, NJ,
ON DECEMBER 03, 2020**

INVESTIGATING OFFICER'S REPORT

Executive Summary

On Thursday, December 3, 2020, at approximately 1300, the Commercial Fishing Vessel (CFV) CONCH'RD, a conch vessel homeported in Cape May, NJ, was engaged in fishing in the North Atlantic Ocean with two persons onboard approx. 15 nautical miles east of Cape May, NJ. The owner/operator and a crewman were attempting to retrieve conch pots, when the owner/operator inadvertently ran over a conch pot line, fouling the vessel's propeller. The owner/operator attempted to free the vessel's propeller from the conch pot buoy lines, and during that process, the vessel suddenly heeled towards the port side. The owner/operator observed an excessive amount of water in the stern weather deck area of the vessel, and shortly after, the vessel capsized towards the port side. The owner/operator and crewman entered the water prior to the vessel capsizing. They climbed on top of the exposed bottom of the vessel and awaited rescue.

The owner/operator retrieved a single PFD from the pilothouse and handed it to the vessel's crewman who then donned the PFD. The crewman removed his PFD and attempted to retrieve additional lifesaving gear from inside the vessel by swimming through the hole in the pilothouse window. The crewman made multiple attempts to retrieve lifesaving gear from the sinking vessel and was not successful. As the vessel continued to sink stern first, both crewman and owner/operator clung to the bow of the vessel. The crewman slipped away from the owner/operator and drifted away from the vessel. The crewman was last seen by the owner/operator sinking beneath the waterline and did not resurface.

The owner/operator was rescued by the Good Samaritan vessel JERSEY BOY and returned to the pier in Cape May, NJ, where he refused medical treatment. USCG Air Station Atlantic City, NJ, USCG Station Cape May, NJ, and the CGC LAWRENCE LAWSON conducted searches for the missing crewman until the following day, when the search was suspended. The CONCH'RD's crewman was not located and was presumed dead. The CONCH'RD was not recovered and sank in the North Atlantic Ocean.

As a result of its investigation, the Coast Guard has determined that the initiating event for this casualty was the overloading and improper stowage of the vessel with conch pots, which negatively impacted the vessel's intact stability. Other causal factors contributing to the capsizing and subsequent sinking include: (1) inexperience of the owner/operator in the commercial conch fishing industry, (2) the lack of a stability test or stability instructions, (3) the

fouling of the vessel's propeller, (4) the improper use of the vessel as an offshore commercial conch fishing vessel, and (5) the swamping of water over the transom of the vessel.

Causal factors that contributed to the loss of the crewman's life include: (1) the lack of crew knowledge and training for emergency situations and unfamiliarity with commercial fishing vessel laws and regulations, (2) the delay in the transmission of the vessel's EPIRB signal, (3) the delay in the automatic deployment of the vessel's inflatable life raft, and (4) the multiple attempts by the crewman to retrieve lifesaving gear from inside the sinking vessel.



16732
September 30, 2025

**LOSS OF LIFE ONBOARD THE COMMERCIAL FISHING VESSEL (CFV)
CONCH'RD (NJ8244GN), APPROX. 15 MILES EAST OF CAPE MAY, NEW JERSEY,
ON DECEMBER 03, 2020**

INVESTIGATING OFFICER'S REPORT

1. Preliminary Statement

1.1. This marine casualty investigation was conducted and this report submitted in accordance with Title 46, Code of Federal Regulations (CFR), Subpart 4.07, and under the authority of Title 46, United States Code (USC), Chapter 63.

1.2. The Investigating Officer designated one party-in-interest in this investigation.

1.2.1. Legal counsel for the owner of the CONCH'RD. The owner is entitled to party-in-interest status per 46 USC 6303(1).

1.3. The Investigating Officer denied one party-in-interest's request in this investigation.

1.3.1. Legal counsel representing the next-of-kin, the decedent's six-year-old daughter. The next-of-kin was not entitled to party-in-interest status per 46 USC 6303(1).

1.4. The Coast Guard was the lead agency for all evidence collection activities involving this investigation.

1.5. All times listed in this report are approximate and are given in Eastern Standard Time using a 24-hour format.

2. Vessel Involved in the Incident



Figure 1. Photograph of the CONCH'RD provided by owner January 05, 2021.

Official Name:	CONCH'RD
Identification Number:	NJ8244GN
Flag:	United States
Vessel Class/Type/Sub-Type	Commercial Fishing Vessel
Build Year:	2000
Gross Tonnage:	5 GRT
Length:	31 Ft.
Beam/Width:	10.8 Ft.
Draft/Depth:	2.6 Ft.
Main/Primary Propulsion: (Configuration/System Type, Ahead Horsepower)	John Deere Marine Power 4 Cycle, Diesel Inboard engine, 220HP.
Owner:	[REDACTED]
Operator:	

3. Deceased, Missing, and/or Injured Persons

Relationship to Vessel	Sex	Age	Status
Crewman	Male	45	Deceased (presumed dead)

4. Findings of Fact

4.1. The Incident:

4.1.1. At 0430, on December 03, 2020, the owner/operator of the CONCH'RD, and the decedent, commenced preparations to get underway from Utsch's Marina located in Cape May, NJ. The decedent assisted with loading preparations which included an estimated six to eight 5-gallon portable fuel tanks filled with diesel fuel, supplies, and twenty-five, 30" x 18" plastic tote bins used for storing bait and conch onboard the vessel. The owner/operator conducted pre-departure checkoffs such as inspecting bilges for water ingress, engine oil and coolant level and a general inspection of the vessel. The owner/operator did not notice anything abnormal with the vessel.

4.1.2. At 0500, the CONCH'RD departed Utches Marina with 02 POB, the owner/operator and decedent, enroute to tend conch pots off the coast of Cape May, NJ, in the vicinity of Five Fathom Banks in the North Atlantic Ocean.

4.1.3. At 0730, the vessel proceeded out of Cape May, NJ, inlet and arrived at its first destination and conch pot location area northeast of McCrie Shoal and west of Reef Site 11 in the North Atlantic Ocean.

4.1.4. At 0745, the owner/operator and decedent began tending to the first string of approximately 50 conch pots in the vicinity of McCrie Shoal. The vessel pulled up alongside pot marker buoys that were individually attached to a single pot and began hauling pots out of the water and into the CONCH'RD. The owner/operator controlled the vessel and the pot hauler simultaneously. The decedent tended to the pots on the starboard side and removed any conch that were caught, rebaited the traps and stowed the caught conch in the plastic totes located on top of the engine cover hatch. The rebaited pots were stowed onboard.

4.1.5. At 1030, the owner/operator observed that the catch was very low and that the conch pots had either shifted locations or were missing. The owner/operator made a decision to keep the majority of the hauled and rebaited pots onboard and deploy the pots in another location.

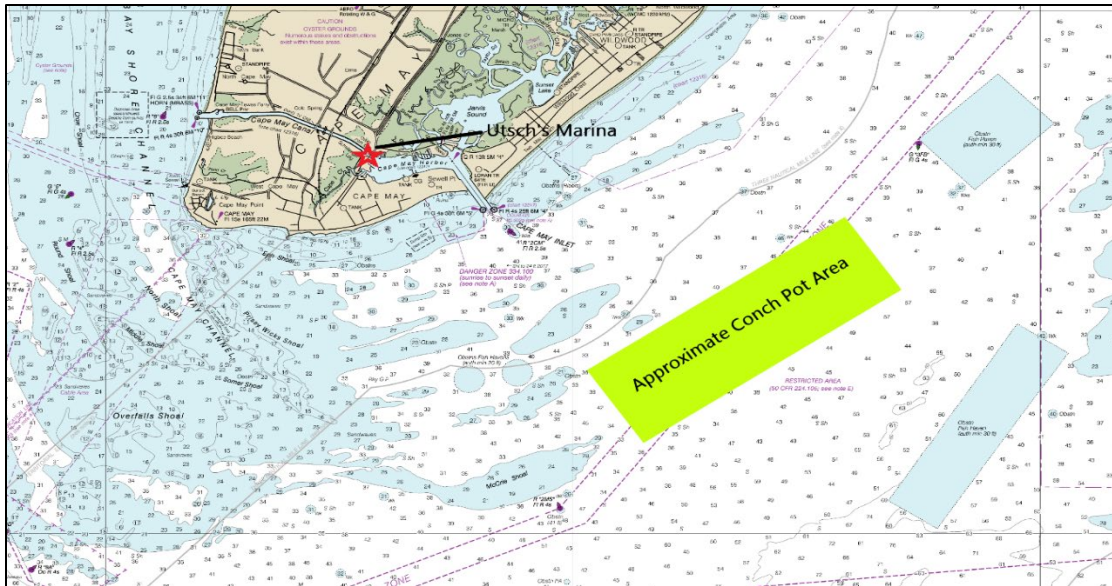


Figure 2. Image of NOAA chart that indicates where the general area of conch pot strings being tended by the subject vessel were believed to be located,

4.1.6. At 1130, the owner/operator proceeded to another pot location area north of McCrie Shoal to tend to more pots in another nearby string. The majority of the pots from the previous string were not deployed and stowed onboard the vessel. The decedent refueled the vessel using the portable 5-gallon fuel tanks stowed onboard.

4.1.7. At 1200, the owner/operator arrived at the new pot string area and began hauling more conch pots out of the water and onto the CONCH'RD. The decedent resumed retrieving the hauled pots on the starboard side of the vessel, stowing any caught conch in the totes, rebaiting and stowing the pots onboard the vessel in anticipation of redeploying the pots at another location.

4.1.8. At 1300, the owner/operator pulled alongside a pot buoy with approximately 90 conch pots and an estimated 200lbs of caught conch stowed onboard the vessel in plastic tote bins. The owner/operator attempted to hook the pot buoy with an aluminum boat hook.

4.1.9. At 1301, the owner/operator engaged astern propulsion on the vessel to slow the vessel's forward momentum and steady up on the pot buoy. As the owner/operator hooked the pot buoy, the buoy parted from the line. The pot line floated freely in the water.

4.1.10. At 1301, the owner/operator maneuvered the vessel over the floating pot line. The floating pot line fouled the CONCH'RD's propeller.

4.1.11. At 1302, the owner/operator realized that the propeller was fouled by line. The owner/operator noticed that the vessel "felt as though the stern of the vessel was anchored to the bottom of the ocean" and felt the vessel shift towards its port quarter.

4.1.12. At 1303, the owner/operator yelled to the decedent and asked if everything was "okay."

4.1.13. At 1304, the owner/operator looked back at the decedent who was approximately amidships and observed water splashing the face of the decedent. The owner/operator observed the decedent walking back towards the stern of the vessel to check the status of the vessel.

4.1.14. At 1305, the decedent yelled to the owner/operator that they were taking water over the vessel's transom and into the vessel.

4.1.15. At 1306, the owner/operator yelled for the decedent to start throwing conch pots over the side of the CONCH'RD to lighten the vessel's load.

4.1.16. At 1307, the owner/operator then attempted to put the vessel's engine ahead to draw the water out of the stern of the vessel through the freeing ports and/or over the vessel's transom and free the propeller from the line.

4.1.17. At 1308, the owner/operator abandoned ship by jumping overboard off the starboard side of the vessel in the vicinity of the vessel's operating station and into the water. The owner/operator did not observe the decedent jumping overboard.

4.1.18. At 1308, the owner/operator was submerged in the water in the North Atlantic Ocean without a PFD or immersion suit and was also without the vessel's EPIRB.

4.1.19. At 1309, on December 03, 2020, the CONCH'RD capsized in the North Atlantic Ocean in the vicinity of position 38-55.692N and 074-36.560W. The vessel's inflatable life raft that was mounted on top of the superstructure was not deployed by the owner/operator or decedent.

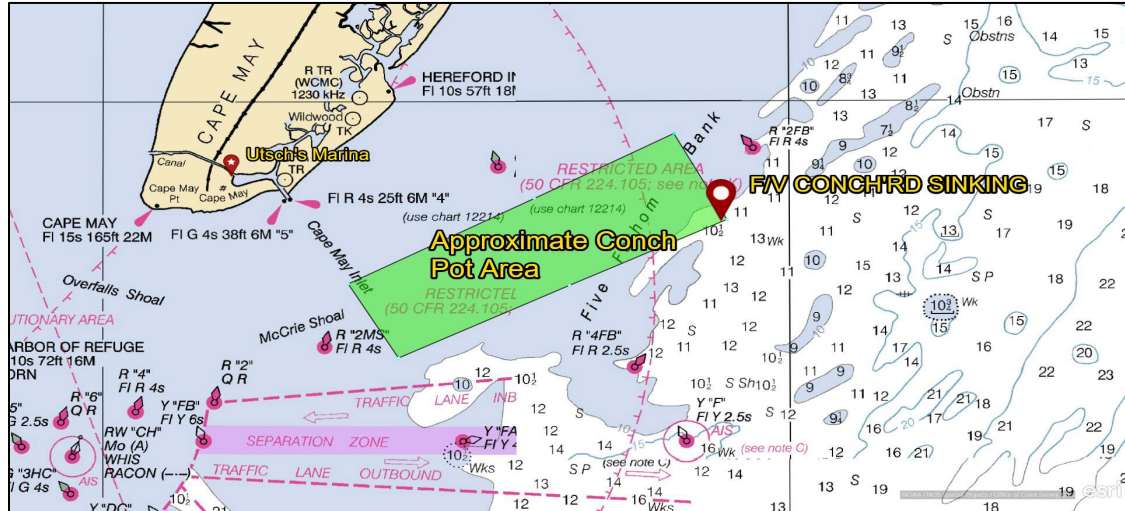


Figure 3. Location of CONCH'RD sinking in relation to approximate conch pot fishing area.

4.1.20. At 1310, the owner operator/observed the decedent climb up on top of the vessel's bottom that was now exposed above the waterline and facing upward. The superstructure and deck of the vessel was now partially submerged below the waterline. The decedent was not observed wearing a PFD or immersion suit.



Figure 4. Image of a capsized vessel taken from the internet which illustrates the position the subject vessel was believed to be in when it initially capsized.

4.1.21. At 1311, the owner/operator attempted to climb on top of the bottom of the vessel with the decedent. The owner/operator was unable to climb up on the vessel and instead swam to the vessel's bow where he clung to the bow as the vessel began to sink stern first below the waterline.

4.1.22. At 1315, the owner/operator observed that the bow of the vessel was rising as the stern sank further below the waterline and observed the windshield of the pilothouse house was exposed above the waterline. The owner/operator kicked a hole in the center windshield of the pilothouse out and felt a rush of air escape the vessel. He observed various equipment such as the portable gas tanks floating out of the pilothouse through the hole in the windshield.

4.1.23. At 1320, the owner/operator was standing on top of the exposed bottom of the vessel on the starboard side in the vicinity of the vessel's bow. He attempted to locate the vessel's PFDs and immersion suits that were located in the pilothouse of the vessel bungeed in the overhead above the operating station.

4.1.24. At 1350, the owner/operator located a single PFD and handed it to the decedent who was still on top of the exposed bottom portion of the vessel. The decedent donned the PFD, and the owner/operator attempted to grab more lifesaving gear from the pilothouse.

4.1.25. At 1351, the decedent suggested to the owner/operator to dive into the hole in the windshield and locate the vessel's immersion suits so that he and the owner/operator could don them. The owner/operator declined swimming through the hole in the windshield and moved to where the decedent was standing on top of the exposed bottom of the vessel.

4.1.26. At 1355, the decedent removed his PFD and overalls. He handed his PFD to the owner/operator, which he did not don. The decedent attempted to swim through the hole in the vessel's windshield wearing thermal underwear and a hooded sweatshirt.

4.1.27. At 1400, the decedent attempted approximately two dives into the vessel's pilothouse and was unable to locate any of the vessel's immersion suits. The owner/operator suggested to the decedent to get out of the water and climb back up on top of the exposed bottom of the vessel with him to stay dry. The decedent declined and attempted to dive back into the pilothouse again to locate immersion suits.

4.1.28. At 1405, the decedent was unable to locate the vessel's immersion suits through the hole in the pilothouse and resurfaced. He and the owner/operator had a brief conversation about why the inflatable life raft did not deploy. The decedent decided to swim back into the hole in the pilothouse again to locate the vessel's life raft and determine why the life raft did not deploy, and possibly manually deploy the raft.

4.1.29. At 1406, a single, unlocated 406 MHz EPIRB signal with an expired registration was picked up by the United States Mission Control Center (USMCC), which monitors EPIRB transmissions. GPS coordinates were not transmitted by the EPIRB to the USMCC.

4.1.30. At 1409, the unlocated 406MHz EPIRB signal was transmitted from the USMCC to the USCG East District Command Center (DECC) and alerted the DECC staff.

4.1.31. At 1415, USCGD-ECC contacted the EPIRB registered owner, and notified him that they received a single unlocated 406MHz from an EPIRB that was registered to him and the vessel GOLDRUSH II. The EPIRB registered owner told the DECC that his son, owner/operator of the CONCH'RD, had the EPIRB stowed in a compartment in a ditch bag and would have to manually deploy the EPIRB. The EPIRB registered owner provided the DECC with the owner/operator's cell phone number. He mentioned that his son and the vessel may be in distress. DECC attempted to call the owner operator and the call went right to voice mail.

4.1.32. At 1416, the decedent resurfaced and was unable to deploy the life raft or locate the immersion suits. The owner/operator suggested that the decedent stop diving into the vessel. He suggested to the decedent to get out of the water and climb on top of the exposed bottom of the vessel with him to stay dry. He informed the decedent that the vessel was equipped with an EPIRB and that the EPIRB may have activated. The decedent decided to once again locate the immersion suits and dove back into the submerged pilothouse. He resurfaced within moments without the immersion suits.

4.1.33. At 1418, DECC contacted USCG Sector Delaware Bay Command Center (SDBCC) and instructed them to make radio call outs via VHF radio to the GOLDRUSH II. SDBCC made three radio call outs via VHF CH. 16 to the GOLDRUSH II without any response.

4.1.34. At 1421, the EPIRB's registered owner contacted a friend and informed them that his son's EPIRB had activated and alerted the Coast Guard, though it did not provide a location for the vessel GOLDRUSH II. The friend planned to use his vessel to search for the crew.

4.1.35. At 1421, the decedent dove back into the CONCH'RD's pilothouse through the broken window to once again locate the immersion suits.

4.1.36. At 1422, the decedent resurfaced and was unable to locate any immersion suits. The decedent climbed back on top of the exposed bottom of the vessel and joined the owner/operator who had stripped down to his Carhartt coveralls. The owner/operator handed a PFD to the decedent, which he then donned.

4.1.37. At 1426, DECC contacted the EPIRB registered owner and inquired if he was aware of the location where the GOLDRUSH II normally fished. The EPIRB registered owner told DECC that the GOLD RUSH II fished in the vicinity of Five Fathoms Bank in the North Atlantic Ocean and that the vessel's name was no longer the GOLDRUSH II but was now the CONCH'RD.

4.1.38. At 1427, the decedent and the owner/operator were sitting on the exposed portion of the bottom of the hull of the CONCH'RD and hugged each other for warmth. The decedent told the owner/operator that he was cold. The owner/operator instructed the decedent to remove his wet clothes. The decedent removed his PFD and removed his hooded sweatshirt. As he attempted to re-don the PFD, the decedent dropped the PFD into the water and the PFD floated away from the capsized vessel.

4.1.39. At 1428, the decedent made multiple attempts to dive into the pilothouse of the CONCH'RD through the broken window to retrieve the immersion suits.

4.1.40. At 1430, the decedent was observed by the owner/operator attempting to swim out of the pilothouse and could not locate the broken windshield. The decedent appeared trapped in the pilothouse of the vessel.

4.1.41. At 1431, USCG SDBCC broadcasted the following Urgent Marine Information Broadcast (UMIB) on VHF Channel 16 "At 1409 local time the Coast Guard received a report of a 32' green commercial vessel CONCH'RD out of Archer's Marina in possible distress. All vessels in the vicinity are requested to keep a sharp lookout, assist if possible and report all sightings to the USCG."

4.1.42. At 1433, the decedent resurfaced and told the owner/operator that he almost was able to retrieve an immersion suit and had it in his hand. The decedent dove back into the vessel and attempted to once again retrieve immersion suits from the vessel.

4.1.43. At 1436, SDBCC, made three radio call-outs on CH 16 for the CONCH'RD that may be in distress.

4.1.44. At 1438, the CGC LAWRENCE LAWSON (SAR cutter) commenced a law enforcement operation in the North Atlantic Ocean at position: 38°47.450N 075°44.477W.

4.1.50. At 1453, SDBCC contacted the CGC LAWRENCE LAWSON and diverted the cutter to proceed to position: 38°55'69" N, 074°36'56" W in the vicinity of the latest EPIRB confirmed location. The CGC LAWRENCE LAWSON was still in the process of conducting a LE boarding.

4.1.51. At 1500, the EPIRB registered owner contacted the HEAVY HITTER and passed along the latest coordinates he had received from the DECC. The EPIRB registered owner asked the HEAVY HITTER to take his son's vessel, the JERSEY BOY, to the coordinates since it was deemed faster by the EPIRB registered owner than the HEAVY HITTER. Mr. Smith departed the dock with the JERSEY BOY enroute to the latest position passed to him by Mr. Daniel Avena with 02 additional POBs.

4.1.52. At 1501, the decedent dove back into the vessel's operating station through the hole in the pilothouse windows again to retrieve immersion suits. The decedent was able to recover a single PFD. The decedent attempted to put the PFD on but lost his grip on the PFD. The PFD drifted away from the vessel.

4.1.53. At 1502, the owner/operator attempted to pull the decedent back up on the vessel but was unable to lift him up onto the exposed part of the CONCH'RD. The owner/operator locked arms with the decedent who was mumbling and becoming unresponsive.

4.1.54. At 1503, the owner/operator attempted to tie a conch pot buoy line around his and the decedent's arms to aid in keeping them together. The owner/operator secured one part of the line to the bow mooring line cleat and the other around both of their arms.

4.1.55. At 1510, the wraps around the arms of the decedent and the owner/operator became undone and the decedent drifted away from the sinking CONCH'RD and the owner/operator.

4.1.56. At 1511, the owner/operator observed the decedent drifting away from him and the vessel on his back where he submerged below the waterline and was not seen by the owner/operator again.

4.1.57. At 1515, CG SDBCC directed STA CAPE MAY to launch the small boat, CG45665, to the last reported confirmed EPIRB position.

4.1.58. At 1520, the JERSEY BOY arrived in the vicinity of the sinking CONCH'RD and observed the vessel sinking stern first with the bow sticking approximately 3' out of the water and saw a person hanging on to the bow of the vessel.

4.1.59. At 1525, the CGC LAWRENCE LAWSON completed the LE boarding of the NORDIC SUN. The USCG small boat CG45665 departed from STA CAPE MAY with 04 crew onboard enroute to the location of the reported sinking CONCH'RD.

4.1.60. At 1526, the JERSEY BOY recovered the owner/operator from the bow of the sinking CONCH'RD. The owner/operator appeared to be suffering from hypothermia. The crew of the JERSEY BOY stripped the owner/operator of his clothes and covered him with a coat for warmth. The owner/operator of the CONCH'RD informed the JERSEY BOY that he last observed the decedent floating away from the sinking vessel

and drowning in the water.



Figure 6. Image of the CONCH'RD sinking stern first with the bow up in the North Atlantic Ocean. Taken by the JERSEY BOY after the owner/operator was recovered. Photographer is unknown.

4.1.61. At 1530, the CG AIR STA AC helicopter (helo), MH65/CGR6605, arrived on-scene and contacted the JERSEY BOY. The CGR6605 had a crew that consisted of 4 persons that included a pilot, co-pilot, flight mechanic and a rescue swimmer.

4.1.62. At 1531, the JERSEY BOY informed CGR6605 that they recovered the owner/operator of the CONCH'RD and that the decedent was still missing, but that the owner/operator witnessed him drowning in the water. The CGR6605 remained on-scene and hovered closely over the location of the sinking vessel. The crew of the CGR6605 did not observe the decedent in the water.

4.1.63. At 1532, the CGR6605 instructed the JERSEY BOY to proceed back to the dock in Cape May, NJ, so that the owner/operator of the CONCH'RD could receive medical attention. The JERSEY BOY departed the scene of the sinking vessel and proceeded back to Cape May, NJ. The CGR6605 remained on station and attempted to visually locate any signs of the decedent in the water.

4.1.64. At 1535, the CGC LAWRENCE LAWSON recovered the LE boarding team and secured the small boat to the cutter. The CGC LAWRENCE LAWSON proceeded to the location of the sinking CONCH'RD to position 38°55'69" N, 074°36'56" W.

4.1.65. At 1545, STA CAPE MAY CG45665 arrived on-scene with CGR6605 at position: 38°55'4" N, 074°32'66" W and began searching through the debris field for the decedent.

4.1.66. At 1555, SDBCC directed the CGR6605 to conduct an initial search pattern to locate the decedent.

4.1.67. At 1601, the CGC LAWRENCE LAWSON arrived on-scene with CG45665. The LAWRENCE LAWSON deployed the cutter's small boat (26245) to assist in the search for the decedent.

4.1.68. At 1605, multiple attempts were made by CG search team to determine signs of life by knocking on the hull of the CONCH'RD. The search team received no response. The team marked the sinking vessel with a buoy.

4.1.69. At 1900, an inflatable life raft was found deployed by the CG45665 and was still tethered to the CONCH'RD. The CGR6605 deployed a rescue swimmer. The rescue swimmer cut the life raft from the CONCH'RD and gave it to the crew of the CG45665. The rescue swimmer knocked on the hull of the CONCH'RD and did not receive a response back.

4.1.70. At 1915, the CGR6605, CG45665 and the CGC LAWRENCE LAWSON resumed their search patterns to locate the decedent.

4.1.71. At 1930, the CONCH'RD fully submerged below the waterline. The CONCH'RD sunk in the North Atlantic Ocean at a depth of approximately 110' in the vicinity of 38°55'39" N, 074°32'63" W.

4.1.72. On December 4, 2020, at approx. 1245, the decedent was not located by the CG SAR assets involved in the search. USCG Sector Delaware Bay Commander officially suspended the search for the decedent. The decedent was presumed dead, and the Coast Guard issued Letters of Presumed Death to the Next of Kin in December 2020, and January 2021.

4.2. Additional/Supporting Information:

4.2.1. The CONCH'RD was a 31 foot long, five gross ton Chesapeake deadrise commercial fishing vessel built by Kinnamon boat builders in Tilghman Island, MD in 2000. The vessel had a fiberglass reinforced plastic (FRP) hull with FRP frames. The vessel's superstructure was FRP over marine grade plywood.

4.2.2. The CONCH'RD was approximately 4 net tons and was registered in the State of NJ. It was not a federally documented vessel.

4.2.3. The vessel was equipped with a 220 HP single 6-cylinder John Deere diesel inboard engine with a single propeller and a single 1.5" diameter stainless steel shaft. A line cutter was fastened to the shaft.

4.2.4. The vessel was designed by Kinnamon boats as a Chesapeake Bay work boat in waters that were of similar nature to Lakes, Bays and Sounds. The vessel was not designed as a commercial offshore fishing vessel.

4.2.5. Sometime in December 2019, the owner/operator purchased the vessel from the previous vessel owner in Cape May, NJ. The owner/operator intended to utilize the vessel for offshore conch fishing and purchased the vessel along with a NJ State conch fishing permit and conch pot traps. This was the owner/operator's first venture into commercial conch fishing.

4.2.6. . The owner operator possessed a valid USCG Merchant Mariners Credential with a Master's of self-propelled vessels of less than 50 gross registered tons upon Near Coastal Waters. The owner/operator conducted offshore charter fishing vessel trips and was a professional inland bass fisherman. The owner/operator did not have any experience as a commercial fishing vessel crab or conch vessel owner and operator.

4.2.7. Commercial fishing vessels are not considered USCG inspected vessels. They have general safety regulations required by 46 CFR Parts 24 through 28. Commercial fishing vessel owners/operators may elect to have a courtesy/voluntary dockside examination conducted by the USCG; however, this is a basic check of safety, lifesaving, firefighting, and navigation gear. If the courtesy exam is satisfactory, vessels are issued an exam sticker, which is valid for two years.

4.2.8. The Coast Guard Authorization Act of 2010 and the Coast Guard Maritime Transportation Act of 2012 both amended 46 USC Chapter 45, Uninspected Commercial Fishing Industry Vessels, and required state-registered and federally documented vessels that operate beyond three nautical miles from shore to complete a mandatory dockside exam. A CFV that has never been examined must have completed an exam prior to October 15, 2015, to be in compliance.

4.2.9. The CONCH'RD did not have a voluntary safety exam, nor a mandatory safety exam, completed by the USCG prior to the sinking.

4.2.10. Commercial fishing vessels less than 79' in length are not required by law or regulation to complete any type of stability test or maintain stability instructions prior to operation as a commercial fishing industry vessel.

4.2.11. The owner/operator of the CONCH'RD was not aware of any stability test that had ever been conducted on the vessel prior to his purchase of the vessel. He did not have a stability test conducted on the vessel while owning/operating the vessel as an offshore commercial conch fishing vessel. He also did not possess any stability or loading instructions for the vessel.

4.2.12. During 2020, the owner/operator installed five aluminum stanchions that were approximately 6'- 8' high and 3" in diameter on the port stern and quarter of the vessel. These stanchions had five lifelines to prevent stacked conch traps from falling overboard.

4.2.13. The vessel had two stern freeing ports that cleared water off the deck. The freeing port sizes measured approximately 8" long by 2"- 3" wide. Commercial fishing vessels less than 79' in length with bulwarks are not required by law or regulation to be fitted with freeing ports.

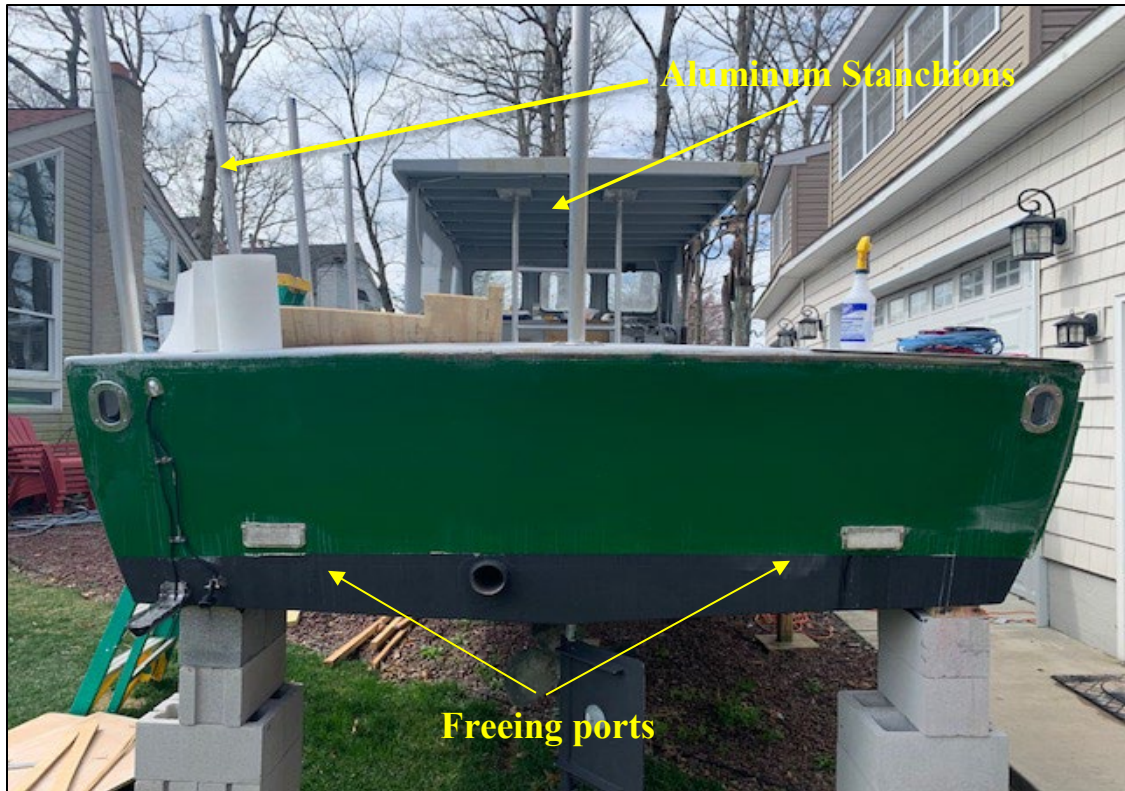


Figure 7. Photograph of transom of CONCH'RD while on blocks taken some time in 2020 during the construction of the stanchions.

4.2.14. The owner/operator utilized a single pot trap fishing system where each conch pot was attached to approximately 90'- 130' of line. The line is connected to a “whale break” which is required by NJ Department of Fish and Wildlife to prevent whale entanglement. The line is then attached to a pot buoy used as a marker for the location of the conch pots.



Figure 8. Homemade conch pot with internal concrete weight, line connection, pot buoy and “Whale Break” from CONCH'RD.

4.2.15. The owner/operator of the CONCH'RD constructed homemade conch pots that consisted of plastic 55-gallon drum tops and bottoms. The owner/operator would pour mixed concrete into the bottom of the trap as a weight to ensure the pot would sink to the ocean floor. The owner/operator did not weigh the concrete weight or pots but poured an amount of concrete mixture that he felt was suitable for the weight. The estimated weight was approximately 35-50 lbs. per pot.



Figure 9. Homemade conch pot overview and manufactured “Ketcham” conch pot taken at owner/operator’s residence.

4.2.16. The owner/operator additionally used purchased conch pots made by Ketcham Supply out of New Bedford, MA. The individual pots come with four brick weights which weighed approximately 50 lbs. The pot dimensions were approximately 24” x 24” x 7.5”.

4.2.17. The starboard side of the CONCH’RD was used as a work area to haul the pots and the port side was used to stack conch pots along with other areas of the vessel to evenly distribute weight. The owner/operator would try to keep the starboard side as clear as possible to provide an open work area to haul or deploy pots.

4.2.18. The operating station was located approximately mid ships on the starboard side and was adjacent to the pot hauler. The owner/operator could control the vessel’s engine and rudder, along with the pot hauler from the control station.

4.2.19. Conch pots would get stacked onboard the CONCH’RD approximately four–six pots per stack. An average/typical number of pots that were stowed onboard was approximately 50 pots at one time. At the time of the capsizing, it was estimated that the vessel had approximately 90 conch pots onboard: approximately 40-50 “Ketcham Supply” pots and 30-40 homemade pots.

4.2.20. During previous conch fishing trips, the owner/operator noted that local conch fishermen had accused him of hauling their conch pots in lieu of his own pots. On a particular string of pots in the vicinity of McCrie Shoal in the North Atlantic Ocean, he noted that he lost a significant number of pots and did not have a good haul in that area.

4.2.21. The owner/operator would often move pot locations as a result of a poor catch or suspected pot tampering and/or poaching. At the time of the vessel sinking, he was in the process of shifting pot locations.

4.2.22. The vessel was equipped with a Revere “Offshore Commander” four-man inflatable life raft. This life raft was purchased from Sea Gear Outfitters located in Cape May, NJ, in November 2020. The raft was installed on the vessel by a former crewman on top of the vessel’s superstructure in a cradle and was equipped with a Hammar hydrostatic release. The life raft was for recreational use and was not USCG approved. It

was not known if the hydrostatic release and inflatable life raft were installed/mounted properly as the CONCH'RD was never recovered.

4.2.23. The inflatable life raft did not initially deploy after the vessel capsized and was discovered deployed approximately four hours after the capsizing by the crew of USCG Air Station Atlantic City's MH65/CGR 6605.

4.2.24. Title 46 CFR Part 25 requires that all commercial fishing vessels that operate on the "high seas" or beyond 3nm from the coastline that are less than 36' in length must carry either a manually activated Category 2 406 MHz EPIRB or a float-free automatically operated Category 1 406 MHz EPIRB. Both must be installed in a readily accessible location at or near the primary operating station.

4.2.25. The owner/operator's father provided him with a "ditch" bag that included basic survival gear such as signaling flares and an ACR 2842 Cat 1 406MHz EPIRB. The EPIRB was transferred from another vessel and was registered to the owner/operator's father. The EPIRB was not mounted in a float free bracket arrangement and was carried in the ditch bag in the vicinity of the vessel's operating station.



Figure 10. ACR 2842 Cat 1 406MHz EPIRB that was reportedly carried onboard the CONCH'RD at the time of the sinking.

4.2.26. The EPIRB was registered in the NOAA database on November 5th, 2015, to the owner/operator's father. According to ACR, the EPIRB manufacturer, battery replacement is due 5 years after the beacon is placed into service or by expiry date on the beacon whichever occurs first. It is not known if the EPIRB's battery expired, or if it was ever serviced prior to the sinking.

4.2.27. The vessel was equipped with approximately 05 PFD's and 03 immersion suits. 03 PFD's and immersion suits were held in place by bungee cord to the overhead in the vicinity of the operating station. State-numbered vessels operating beyond three nautical miles from the coast must be equipped with at least one immersion suit for each person on board. Each vessel's immersion suit(s) or other PFD(s) operating beyond the boundary line must be equipped with an approved PFD light.

4.2.28. The decedent was a 45-year-old male described as approximately 5'8" tall and weighed approximately 150 lbs. He was described being in good physical condition. He served as a crewman/mate that was onboard at the time of the sinking. The decedent was a longtime family friend of the owner/operator and had worked off and on with the

owner/operator in his charter fishing vessel operation. He was initially hired to help build pots by the owner/operator and was later hired in October 2020 as a mate/crewman.

4.2.29. The decedent had several years' experience as a freelance mate/crewman in the offshore sport fishing industry; however, he had minimal experience in the commercial fishing industry.

4.2.30. Title 46 CFR Part 28 requires that Instruction, Drills and Safety Orientation be conducted onboard documented commercial fishing vessel operating beyond the Boundary Line or with more than 16 POB. The CONCH'RD was operating outside the boundary line with 2 POB but was not a USCG documented vessel at the time of the sinking.

4.2.31. Smooth conch at the time of the sinking was being sold for approximately \$4.50 per pound at local fish markets.

4.2.32. On November 22, 2020, a NJ Department of Fish and Wildlife (NJDFW) Officer, , met with the owner/operator and the decedent at Utsch's Marina in Cape May, NJ, to inspect the CONCH'RD's pots to ensure they were using the required "whale breaks." The vessel did not receive any safety inspections at the time. The owner/operator and the decedent discussed adding additional weight to the pots and utilizing a "trawling" type pot system in lieu of a single pot system with NJDFW Officer.

4.2.33. At 1300, on December 03, 2020, the weather on scene at the time of the vessel sinking was: partly cloudy skies, air temperature approximately 55°F, winds approximately 19 knots gusting to 24 knots out of the north, visibility was approximately 10 miles with a barometric pressure of 30.10 in Hg.

4.2.34. At 1300, on December 03, 2020, the water condition at the time of the vessel sinking was: seas out of the northeast with approximately 2'-4' swells with a 1'-2' chop. The water temperature was approximately 48 degrees.

4.2.35. An autopsy and toxicology were not performed on the decedent as their body was never recovered, and he was presumed dead. The cause of presumed death is unknown at the time of this report.

5. Analysis

5.1. The owner/operator's lack of experience in the commercial conch fishing vessel industry.

5.1.1. The investigation revealed that the owner/operator of the CONCH'RD had no experience in the commercial conch fishing industry prior to ownership of the CONCH'RD. During interviews with the owner/operator, he stated that he did not have any experience in the commercial conch fishing industry, but he routinely trapped crab in a recreational capacity and believed that the two activities were generally the same. He added that he believed that the crab pots weighed more than conch pots, and due to the weight of crab pots when compared to conch pots, he believed crab trapping/fishing would be inherently more dangerous than conch fishing. Statements provided by other commercial conch fishing vessel owners/operators interviewed during

the investigation indicated that conch pots are different and traditionally weigh more than crab pots.

5.1.2. The owner/operator had experience on the water as both a professional bass fisherman and as a charter fishing vessel captain, however, both professions are different than commercial conch fishing. The owner/operator's professional bass fishing tournaments were typically held on inland waters such as rivers and lakes. He was also a USCG credentialed Master of 50GT upon near coastal waters and while his charter fishing trips were conducted offshore, the two industries are different when compared to commercial conch fishing. Charter fishing vessel trips typically fall under small passenger vessel, recreational or uninspected passenger vessel operations/regulations, not commercial fishing vessel regulations found in 46 CFR Part 28. Typically, charter fishing vessels catch fish for sport and usually in small quantities. The caught fish are not carried or transported in bulk to a fish processing facility; whereas, commercial conch fishing is stored in bulk onboard, then transported to a fish market or processing facility where it is sold and processed.

5.1.3. Commercial conch fishing vessel owners/operators interviewed for this investigation specified that they had spent their whole life commercial fishing, and while they had no formal training program, they had years of experience as a crewman or mate prior to owning/operating a commercial conch fishing vessel as a Master or vessel owner. The CONCH'RD was the first commercial fishing vessel that the owner/operator purchased, his first venture into the commercial fishing vessel industry, and his first time not only as the operator of a commercial conch fishing vessel but also serving in any capacity onboard a commercial conch fishing vessel.

5.1.4. The investigation revealed that at the approximate time that the owner/operator first purchased the CONCH'RD, the market for smooth conch was nearing an all-time high, selling for roughly \$4.50 lb. Additionally, the owner/operator believed the process to obtain a commercial crab permit, an area of fishing he had recreational experience in, within the state of New Jersey, was too arduous and/or difficult to obtain. The CONCH'RD was purchased by the owner/operator with a valid NJ conch permit which was then transferred over to his name. A statement provided by NJDFW did not indicate that the process to obtain a crab permit was more, or less, arduous than obtaining a conch permit. The NJDFW stated that the location of where the owner/operator conducted conch fishing was outside of 3 nautical miles and was considered federal waters and not within state regulated waters. According to the NJDFW, since the CONCH'RD was operating in federal waters, a state permit for conch fishing was not required.

5.1.5. Several factors contributed to the owner/operator's belief that he could successfully own/operate a commercial conch fishing vessel in an offshore capacity. First, he was allured by the lucrative smooth conch market. Second, he was already in possession of a commercial conch fishing vessel with a valid NJ State conch fishing permit. And third, the owner/operator had experience as a professional bass fisherman and offshore charter fishing vessel captain.

5.2. *The CONCH'RD was not constructed as an offshore commercial conch fishing vessel.*

5.2.1. A statement provided by the original vessel builder, Kinnamon Boat Builders, indicated that the CONCH'RD was not designed for offshore fishing or conch fishing. When the vessel was constructed in 2000, the vessel was explicitly designed as a Chesapeake Bay work boat for bay crabbing or general fishing. When asked if the vessel could safely stow/transport approximately 100 pots onboard while operating offshore, Kinnamon Boat Builders stated that the vessel could absolutely not safely stow/transport that many pots onboard and that amount would put the vessel in immediate risk of potentially sinking/capsizing. Kinnamon Boat Builders believed that 50 pots would be the maximum due to the weight of conch pots compared to crab pots and the size and design of the vessel.

5.2.2. While commercial fishing vessels under 79' in length are not required to maintain freeing ports, the CONCH'RD's installed freeing ports were indicative of a vessel that was designed to operate on a protected route and not on exposed or partially protected waters. The vessel's particulars/dimensions were taken from the survey conducted on the vessel in May 2020 and a statement attesting to the approximate size of the freeing ports, bulwarks and deck space was taken from Kinnamon Boat Builders, the owner/operator, a previous vessel operator and a previous crewman that worked onboard with the owner/operator. These dimensions were submitted to the USCG Marine Safety Center (MSC) Salvage Engineering Response Team (SERT). The SERT provides 24/7 naval architecture and salvage engineering support to the USCG. The SERT team conducted a drainage calculation analysis based on the approximate freeing port size and the aforementioned approximate dimensions and compared it to drainage requirements found in 46 CFR 178.450(a):

1. Basic drainage area for Protected Waters: (Weather Deck Volume x Weather Deck Ratio) = 40 in²
2. Basic drainage area for Partially Protected Waters: (Weather Deck Volume x Weather Deck Ratio) = 200 in²
3. Basic drainage area for Exposed Waters: (Weather Deck Volume x Weather Deck Ratio) = 400 in²

5.2.3. The CONCH'RD had two freeing ports (see figure 7) that measured approximately 8" long by approximately 2"-3" high. This provides for approximately 48 in² of drainage and is suitable only for protected waters. Protected waters are defined by Sector Delaware Bay's OCMI as "all waters inside the Barrier Islands from Shark River Inlet, New Jersey to Cape May, New Jersey from Cape Henlopen, DE. south to the MD/DE line." At the time of the sinking, the CONCH'RD was approximately 15 miles off the coast of Cape May, which would be considered partially protected waters and just 5 miles from fully exposed waters.

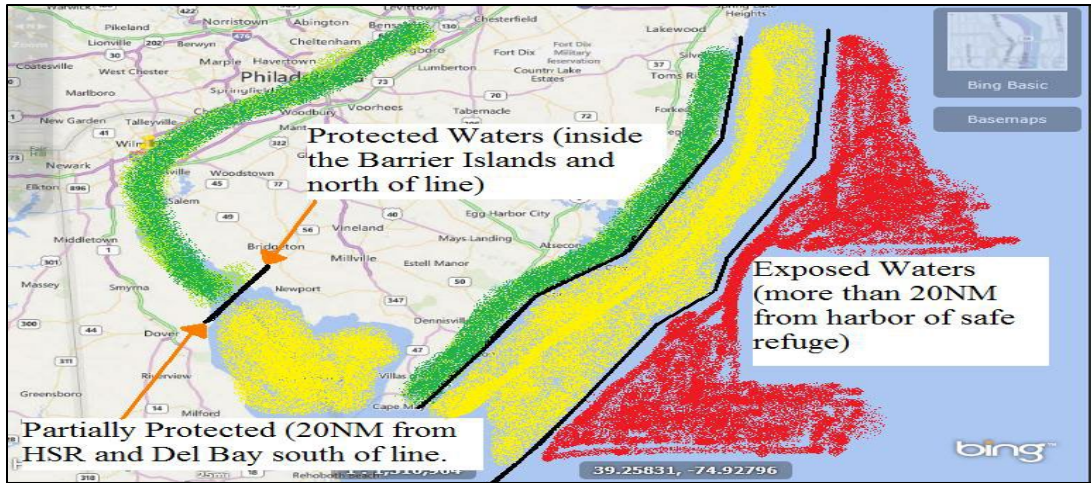


Figure 11. Colored chart of Protected Waters (green), Partially Protected Waters (yellow), and Exposed Waters (red) as defined in Sector Del Bay OCMI Policy.

5.3. *The CONCH'RD's overloading, weight distribution and loss of stability.*

5.3.1. Initially, a statement provided by the owner/operator indicated that at the time of the sinking the vessel had approximately 90 conch pots onboard. During a follow up interview with the owner/operator and his attorney on 02FEB21, he stated that he had a total of 80 pots stowed onboard, approximately 40-50 Ketcham Supply pots and 30-40 homemade pots. A statement provided by a former crewman on the CONCH'RD indicated that they would sometimes stow upwards of over 100 pots onboard and it was not uncommon to have that many pots onboard. At the time of the sinking, the owner/operator was transporting the pots from one location to another. The owner/operator was asked multiple times by the investigator to provide a diagram of how the pots were stowed onboard at the time of the sinking; however, a diagram was never provided for analysis.

5.3.2. The pots were estimated to weigh somewhere between 35-50 lbs. when dry, although the exact weight of the homemade pots was not known as the owner/operator did not weigh a representative sample. A representative from Ketcham Supply indicated that the pots used by the owner/operator weighed 50lbs when dry. The owner/operator described the general location of how the pots were stowed onboard; he indicated that the pots were spread throughout the stern and on the port side and were approximately stacked 4-6 pots high. He stated that he kept the starboard side relatively clear since it was the primary work area of the vessel.

5.3.3. The owner/operator also modified the vessel with aluminum stanchions and lifelines (see figure 7) which were installed to prevent the conch pots from falling overboard when stacked above the gunwale/bulwark on the port side. He stated that he would never stack pots as high as the estimated height of 6'-8' of the stanchions. It is possible that in order to stow 80-100 pots onboard the vessel with very limited deck space due to the size of the engine cover and while keeping the starboard-side work area clear, the pots would have to be stacked as high, and possibly even higher than the estimated height of 6'-8' of the stanchions. The stacked height and location predominantly on the port side would have shifted the vessel's metacentric height (GM), negatively impacting the vessel's intact stability.

5.3.4. Members onboard the commercial conch vessel NARWHAL, which was fishing in the vicinity of the CONCH'RD, observed the CONCH'RD shortly before the vessel sank. Their statements indicated that the vessel's stern was sitting very low in the water. According to the survey conducted on the vessel in May 2020, the vessel had an overall depth of 2'6" and the vessel's freeboard was estimated by the vessel builder to be approximately 2' in the vicinity of the stern of the vessel. Additionally, the vessel's freeing ports were in close proximity to the waterline (see figure 7). The overloading of pots on the port side, any additional weight as a result of the stowed pots and lines being waterlogged, the proximity of the freeing ports to the waterline and the relatively small freeboard area of the vessel, could have partially submerged the stern/transom of the CONCH'RD in the water, as was witnessed by the NARWHAL.

5.3.5. If the CONCH'RD was stern heavy as reported, this could have fully submerged the freeing ports, greatly affecting the vessel's drainage capabilities. As a result of the freeing ports being submerged and/or too small for non-protected waters, any sort of swamping that occurred would not have given the excess water a place to properly drain. This would allow the water to become trapped in the stern of the vessel, allowing for an increase in the free surface moment and ultimately, negatively impacting the vessel's overall stability.

5.4. *The lack of stability manual, stability instructions or a stability test on the CONCH'RD.*

5.4.1. The owner/operator could not provide a stability manual, stability instructions or evidence of any kind of stability test for the vessel. The regulations do not require commercial fishing vessels to conduct a stability test or maintain stability instructions onboard unless that vessel is over 79' in length. The CONCH'RD was 31' in length, there was no requirement for the vessel to have a stability test or maintain stability instructions. According to 46 CFR 28.530, any commercial fishing vessel over 79':

“...The rules provide maximum flexibility for owner and qualified individuals to determine how this information is conveyed, taking into consideration decisions by operating personnel must be made quickly and that few operating personnel in the commercial fishing industry have specialized training in stability. Therefore, stability instructions should take into account the conditions a vessel may reasonably be expected to encounter and provide simple guidance for the operating personnel to deal with these situations.”

5.5. *The lack of crew knowledge and training for emergency situations, and familiarity with laws and regulations for commercial fishing vessels.*

5.5.1. A statement provided by the owner/operator indicated that he was generally unaware of any of the safety/lifesaving regulations found in 46 CFR Part 28 that applied to the commercial conch fishing vessels. During interviews, he often stated the reason why he had lifesaving equipment such as an inflatable life raft or an EPIRB onboard was that his father, , was a “worry wart” and concerned about his son's safety. When it was explained that the inflatable life raft he had onboard the CONCH'RD at the time of the sinking was constructed for recreational vessels, not commercial vessels, and was also not USCG approved, the owner/operator believed that by carrying the inflatable raft onboard he was just appeasing his father whom he believed was overly concerned about his safety. He was generally unaware that he was required by 46 CFR Part 28 to carry a

life raft onboard.

5.5.2. The owner/operator did not have a voluntary exam or mandatory safety exam conducted on the CONCH'RD as required by the *Coast Guard Authorization Act of 2010* and the *Coast Guard and Maritime Transportation Act of 2012*. While the exam alone would not have prevented the vessel from capsizing, any potential issues affecting the proper deployment of the lifesaving equipment could have been identified early. Examiners may have noted that the EPIRB's registration was expired, or about to expire, depending on when the vessel was examined, and also potentially verified proper installation of the life raft which did not deploy until four hours after the vessel capsized. The proper installation of the raft could not be determined during the investigation.

5.5.3. Although the vessel was operating beyond the boundary line, since the vessel was only four net tons, the CONCH'RD was not required to be a USCG documented/registered vessel, and the safety examination would not have included verifying drills, safety orientation, or crew training. There is no requirement for state registered commercial fishing vessels operating beyond the boundary line to conduct training and drills onboard.

5.5.4. The statement provided by the owner/operator indicated that he and the decedent did not have any time to prepare to abandon ship prior to the vessel capsizing, however, the sequence of events suggests that the owner/operator had more time than he indicated. The owner/operator had enough time to provide instructions to the decedent to check on the status of the flooding, to give an order to throw pots overboard to lighten the vessel's loaded condition and also try to evacuate water off the vessel by providing ahead propulsion. However, he indicated that there was not enough time to don survival gear, launch the life raft, or grab the EPIRB from the ditch bag prior to the vessel capsizing.

5.5.5. The owner/operator could have grabbed the EPIRB in the "ditch bag," which was within his reach at the operating station, at the first sign that the vessel had excessive water in the stern and possibly activate it. Instead, he was focused on freeing the overloaded vessel of water and the purported propeller fouling. This may have been due to a lack of preparation in training or drills for emergency situations.

5.5.6. In accordance with 46 CFR 28.270, the master or individual-in-charge of a documented commercial fishing vessel (a commercial fishing vessel that is greater than or equal to five net tons) that operates outside the "boundary line" (figure 12) is required to ensure emergency drills (abandon ship, fire, flooding, launching survival craft, donning immersion suits...etc.) are conducted and instruction is given to each individual onboard the vessel. The master or individual in charge is additionally responsible for ensuring a safety orientation is given to each person on board that has not participated in the required drills. A Fishing Vessel Drill Conductor must provide the required drills and instruction. A Fishing Vessel Drill Conductor is an individual who holds a document, issued by a Fishing Vessel Safety Instructor or the organization providing the training, indicating the individual has completed the training. A Fishing Vessel Safety Instructor is an individual that has been accepted by the local OCMI to train Fishing Vessel Drill Conductors.

5.5.7. Since the CONCH'RD was approximately four net tons (one net ton under the requirement to be a documented vessel), there was no requirement for the master to

ensure drills were conducted and safety instruction was provided to crewmembers even though the vessel operated outside the “boundary line” (see figure 12). The investigation revealed that the owner/operator was generally unaware that his commercial fishing vessel was required to have a mandatory safety exam. Based on the owner’s own admittance that he was lacking in knowledge of commercial fishing vessel safety requirements, it is unlikely that he would have scheduled a Fishing Vessel Drill Conductor to conduct drills and training even if emergency drills and safety instructions were mandatory for commercial fishing vessels less than five net tons. Conducting drills or instruction of any nature and being more aware of the regulatory requirements for commercial fishing vessels may have better prepared him and the decedent for an emergency abandon ship situation.

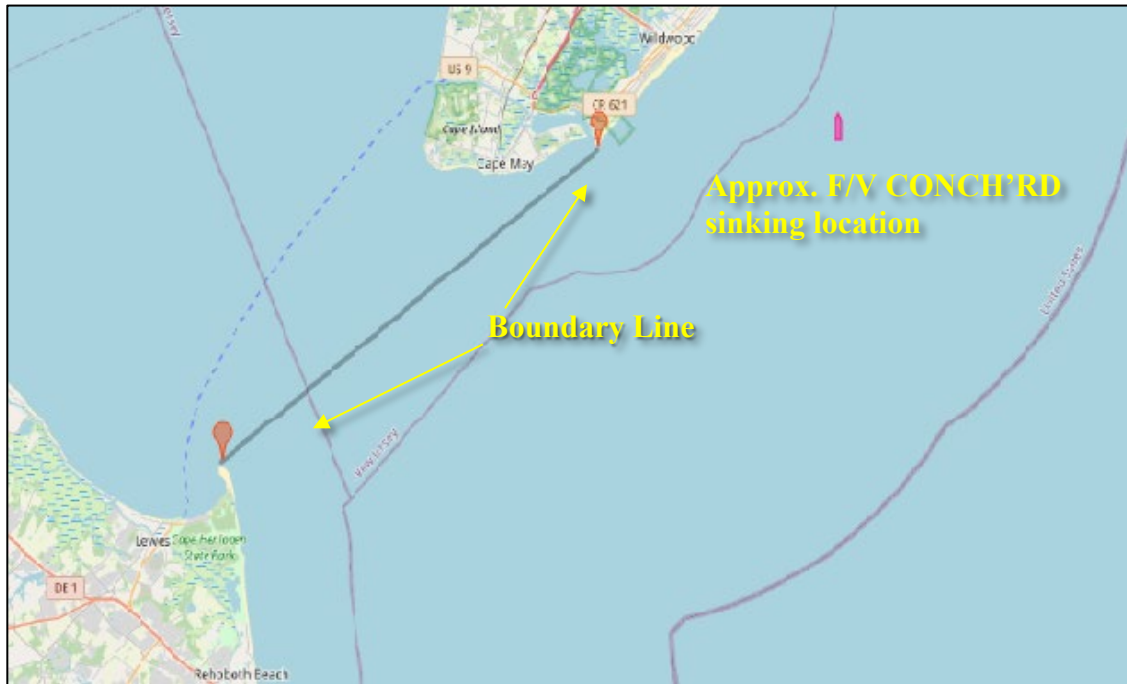


Figure 12. Overview of COTP Delaware Bay “Boundary Line” as defined by 46 CFR Part 7.

5.6. The delay in CONCH’RD’s inflatable life raft deployment.

5.6.1. The investigation revealed that the vessel’s inflatable life raft did not deploy until approximately four hours after the vessel initially capsized. The decedent indicated to the owner/operator that he was going to attempt to manually launch the life raft after the vessel capsized by trying to swim underwater, locate the inflatable life raft and then manually deploy it. The investigation did not reveal if the decedent was able to locate the raft and/or make any physical attempt to deploy the raft. It could not be determined if the decedent had any success locating the raft or if his actions had any positive or negative impact on raft deployment. Interviews were conducted with the life raft manufacturer REVERE and the hydrostatic release unit (HRU) manufacturer Hammar. A technical specialist from Hammar stated that the HRU’s are designed to automatically activate when the appropriate water pressure is reached. This usually occurs when the HRU is submerged to a depth of 1.4 to 5 meters (approximately 5’ – 13’). The water pressure releases the blade in the HRU and cuts the life raft line attached from the cradle where the inflatable life raft would typically rise to the surface. As the container rises to

the surface, the sea painter that is attached to a weak link and permanent part of the vessel pays out until it reaches its limit and inflates the life raft. As the vessel continues to sink, the increased buoyancy of the life raft breaks the weak link attached to the vessel, which allows the life raft to rise to the surface.



Figure 13. Image of a typical Hammar inflatable life raft hydrostatic release installation (left). Image of the inside of a hydrostatic release unit with blade cutting painter (right).

5.6.2. The representative from Hammar stated that when a vessel capsizes, it can be difficult for the HRU to reach the appropriate depth initially. Hammar also indicated that a raft will often fully deploy but can sometimes get caught underneath a vessel if it capsizes. This depends on the original location of the raft, which is often above the weather deck on most vessels. The inflatable raft onboard the CONCH'RD was located on top of the vessel's pilot house, which is above the weather deck. The raft was later observed by USCG Air Station Atlantic City fully deployed approximately four hours after the incident. The investigation could not determine if the following factors had any impact on the delay in deployment of the inflatable life raft:

- 1) The raft deployed, but was trapped underneath the capsized vessel;
- 2) The raft deployed, but became entangled by the excessive amount of pot buoys and line that surrounded the capsized vessel; or,
- 3) The raft deployed approximately four hours later when the capsized vessel reached the appropriate water depth.

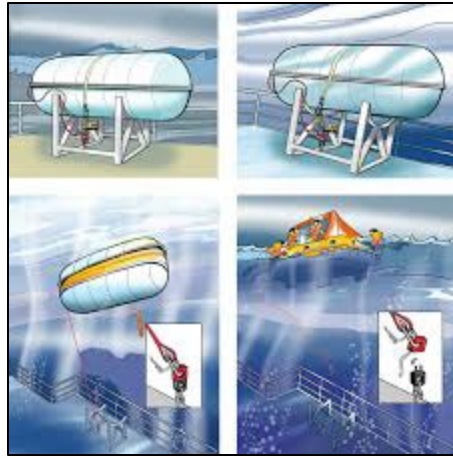


Figure 14. Image of example inflatable life raft release from a sinking vessel

5.6.3. The raft, its cradle, and the HRU were purchased by the owner/operator’s father in November 2020. They were purchased in new condition, so it is highly improbable that the inflatable life raft and HRU were expired. The life raft was recovered and examined post-casualty and was determined to not have any discrepancies. The HRU and the life raft cradle were not recovered and therefore not examined. Additionally, it is unknown if the inflatable life raft was initially installed properly. The installation of the life raft was not verified by a CG Fishing Vessel examiner.

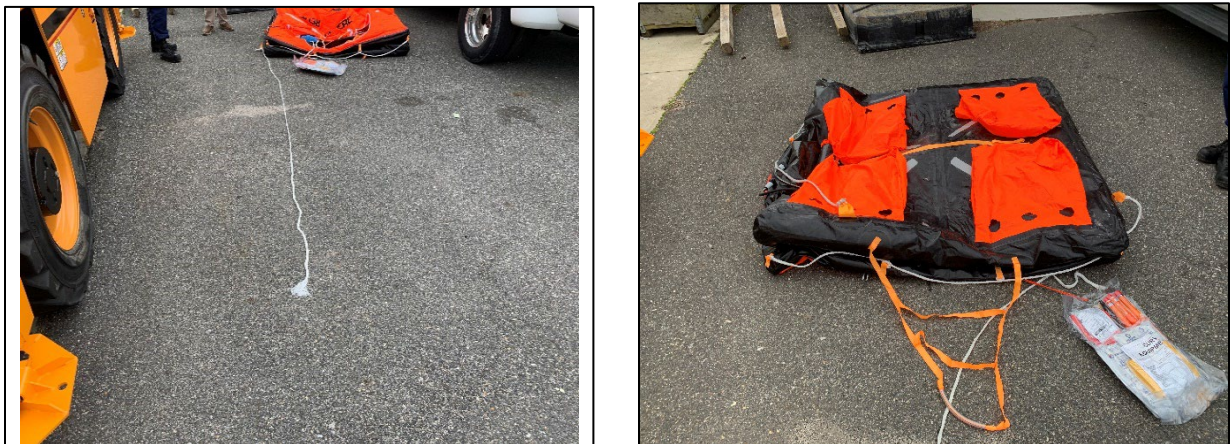


Figure 15. Images of the recovered inflatable life raft from the CONCH’RD. Life raft cut sea painter and top of raft (left) and bottom of life raft overview (right). Photos taken at USCG STA CAPE MAY.

5.7. *The delay in the CONCH’RD’s EPIRB’s 406MHz signal transmission.*

5.7.1. The investigation discovered that the EPIRB was brought on board by the owner/operator after it was provided to him by his father. The EPIRB was in a “ditch bag” stored in the vessel’s steering console where the owner/operator was standing when the vessel initially capsized and was not placed in an optimal “float-free” arrangement. Commercial fishing vessels less than 36’ in length may carry a manually activated Category 2 406 MHz EPIRB or a float-free, automatically activated Category 1 406 MHz EPIRB at or near the primary steering station. The CONCH’RD’s EPIRB was a Category 1 406 MHz EPIRB. The vessel met the requirement since a Category 1 EPIRB can be manually activated in addition to automatic activation. It was stowed at or near

the primary steering station and was relatively readily accessible other than being enclosed in a ditch bag. The CONCH'RD's EPIRB had automatic activation capability in addition to the manual activation, which allowed for automatic activation at a minimum. The activation may have been delayed due to how the vessel sank and its enclosure in a ditch bag; whereas, had the EPIRB only been a manually activated Category 2 EPIRB, it would have never activated unless the owner/operator or the decedent located it in the pilothouse and manually activated it.

5.7.2. The investigation could not determine whether the EPIRB would have activated any sooner if it was stowed in a float-free arrangement instead of a ditch bag. Activation depends on where the float-free arrangement for the EPIRB was located on the vessel. If stowed in a float-free arrangement at the primary steering station, it is possible the EPIRB may not have activated until later when that portion of the vessel sank to the appropriate depth to automatically release the EPIRB, activate the signal and float to the surface.

5.7.3. The EPIRB was not registered to the current owner/operator, but registered under another vessel's name, the GOLDRUSH II. The last record of any NOAA registration was in November 2015. It was not known if the battery had expired or if any servicing/maintenance was conducted on the EPIRB prior to the incident as was required by the EPIRB manufacturer. At the time of this report, the owner/operator of the CONCH'RD has not provided any recent servicing records or battery replacement records for the EPIRB. The ACR 2842 406 EPIRB was equipped with three layers of signal technology: a Global Positioning System, a 406MHz signal and 121.5 MHz signal homing capability.

5.7.4. The first signal from the CONCH'RD's EPIRB was received and transmitted to the USMCC as an "unlocated" first alert at 1407 on 03DEC20. An "unlocated" signal indicates that the satellite has received a 406MHz EPIRB signal transmission, however, it has not determined the coordinates of the signal at this point in time. The signal that was received from the CONCH'RD's EPIRB did contain the EPIRB type and the EPIRB registration info, which had the owner/operator's father and mother as the registrants. The registration also contained their contact information. It was believed that the initial 406MHz alert was picked up by a Medium Earth Orbiting Satellite (MEO). While this signal didn't contain coordinates, it did allow for the DECC to contact the EPIRB registrants and indicate they received a transmission and to inquire as to where the vessel/EPIRB may be in distress. The D5CC received this alert at 1409, the alert message stated:

```
/81760 00000/3660/20 338 1909  
/170/366N
```

```
**** 406 BEACON UNLOCATED FIRST ALERT ****
```

```
BEACON ID: 2DCC8 10FFC FFBFF   SITE ID: 76667
```

```
**** DETECTION TIME AND POSITIONS FOR THE BEACON ****
```

```
PROB EE SOL LATITUDE LONGITUDE DETECT TIME SAT NUM SOURCE SRR  
/BUFFER/BUFF_2
```

DETECTION FREQUENCY: NOT AVAILABLE
 FIRST DETECT TIME: 03 1906 DEC

**** BEACON ID CONTAINS THE FOLLOWING ENCODED INFORMATION ****

COUNTRY : USA BEACON TYPE: EPIRB SERIAL (STANDARD)
 COUNTRY CODE: 366 CRAFT ID : SPECIFIC BEACON:
 MANUFACTURER: CSTA# 258 MODEL :
 SERIAL NUM : 2046 HOMING : 121.5 MHZ
 POSITION DEVICE: INTERNAL POSITION RESOLUTION: NONE

**** BEACON REGISTRATION DATABASE INFORMATION ****

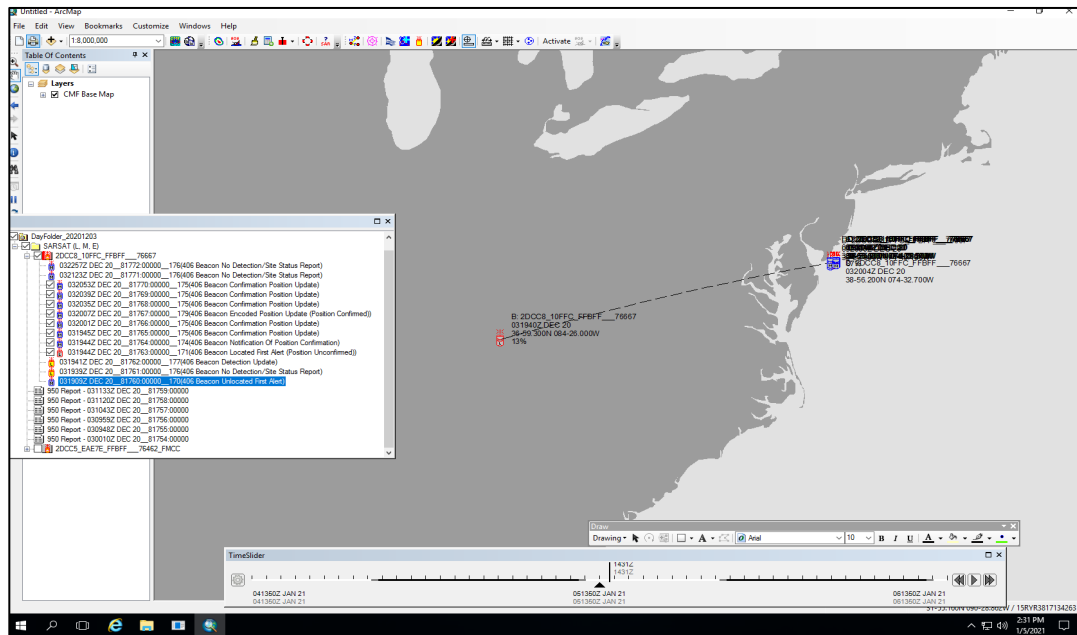


Figure 16. Image showing EPIRB satellite location GPS position transmission for the CONCH'RD and times of each transmission. Image taken from CG SAR

5.7.5. At 1415, the D5CC contacted the registered owner/operator of the EPIRB, who then provided the vessel owner/operator's contact info and indicated that he believed they may be in distress. DECC attempted to contact the owner/operator, however, it went right to voicemail as the owner/operator's cell phone was either turned off, or more than likely, submerged in the water.

5.7.6. The owner/operator estimated that the vessel initially capsized at approximately 1300. He and the decedent had been in the water and exposed to the cold water for a little over an hour before the initial "unlocated" EPIRB transmission was ever received. At this point, the vessel was believed to be capsized and submerged in the water with the stern sinking first, followed by the bow, which was slowly rising in the air as the stern sank further into the water. Due to the location of the EPIRB in the "ditch" bag and in a compartment in the steering console, either the EPIRB had not yet been activated by the water, or the EPIRB's initial 406 MHz signal transmission was hampered by its location

in the vessel.

5.7.7. At 1444, the USMCC received the first position confirmation from the CONCH'RD's EPIRB from a MEO satellite. An alert was submitted to the D5CC that stated:

81764 00000/3660/20 338 1945
/174/366N

**** 406 BEACON NOTIFICATION OF POSITION CONFIRMATION ****

BEACON ID: 2DCC8 10FFC FFBFF SITE ID: 76667

**** CONFIRMED POSITION ****

LATITUDE LONGITUDE DURATION SRR /BUFFER/BUFF_2
38 55.3N 074 31.1W 000.6 HRS CGD05

**** POSITION CONFIRMED FROM THE FOLLOWING NEW INFORMATION

PROB EE SOL LATITUDE LONGITUDE DETECT TIME SAT NUM SOURCE
N/A N/A D 38 54.8N 074 29.8W 03 1942 DEC MEO 010 CYMCC1

DETECTION FREQUENCY: 406.0369 MHZ
FIRST DETECT TIME: 03 1942 DEC

**** BEACON ID CONTAINS THE FOLLOWING ENCODED INFORMATION ****

COUNTRY : USA BEACON TYPE: EPIRB SERIAL (STANDARD)
COUNTRY CODE: 366 CRAFT ID : SPECIFIC BEACON:
MANUFACTURER: CSTA# 258 MODEL :
SERIAL NUM: 2046 HOMING : 121.5 MHZ
POSITION DEVICE: INTERNAL POSITION RESOLUTION: NONE

5.7.8. After receiving a position confirmation of the EPIRB, both SDBCC and the DECC were able to provide CG SAR assets with coordinates to focus their response efforts. Approximately 40 minutes had elapsed between the "unlocated" transmission and a transmission with a confirmed position. The EPIRB was never recovered during the investigation and was not reported as being seen floating in the water by any of the CG SAR assets searching for the decedent. The investigation could not determine if the battery had expired and/or if the battery strength had any impact on the EPIRB signal transmission strength.

5.7.9. Had the owner/operator grabbed the EPIRB prior to jumping into the water as he described, it may have enabled the owner/operator to manually activate the EPIRB immediately instead of relying on the EPIRB's automatic water activation system. However, the owner/operator indicated that he and the decedent did not have any time to grab any lifesaving gear as the vessel started to capsize while they were still onboard.

5.7.10. Statements provided by the USCG Office of Search and Rescue and the EPIRB manufacturer indicated that the fact that the EPIRB transmitted any signal at all was shocking since it was located in a ditch bag and in an enclosed compartment still onboard the sinking vessel. Both parties indicated that an ideal situation for a rapid 406MHz signal transmission of any kind would be that an EPIRB be with a survivor in the water or floating independently in the water because in those scenarios, the EPIRB's antenna would not be obstructed.

5.7.11. Nearly two hours had elapsed before the SDBCC and the DECC were able to instruct SAR assets to satellite provided GPS coordinates of the capsized CONCH'RD approximately 15 miles from Cape May, NJ, and approximately 10 miles from where the CGC LAWRENCE LAWSON was searching.

5.8. *Decedent's decision to make multiple attempts to retrieve survival gear.*

5.8.1. The statement provided by the owner/operator indicated that the decedent made multiple attempts to swim into the pilothouse of the vessel to retrieve PFD's and immersion suits, while the owner/operator remained mostly out of the water by staying on top of the exposed bottom of the vessel and/or clinging to the exposed bow portion of the vessel. According to the owner/operator, he instructed the decedent to get out of the water and remain on top of the exposed vessel with him, however, the decedent refused multiple times. The owner/operator stated that the decedent was determined to recover immersion suits, PFD's and locate the inflatable life raft. At one point, the decedent recovered a PFD and an immersion suit, however, according to the owner/operator, he removed the PFD and lost it in the water. The decedent attempted to don the immersion suit while partially submerged and lost the immersion suit in the water. The decedent had a PFD on at one point but decided to remove the PFD so he could swim underwater and into the vessel's pilothouse.

5.8.2. The SDBCC conducted a Probability of Survival Decision analysis within USCG Search and Rescue Optimal Planning System (SAROPS) on the decedent during the initial search and rescue stages to calculate predicted survival times from the effects of hypothermia during cold-water immersion. With an air temperature of approximately 49°F and a water temperature of 52°F and the decedent physical attributes estimated as 6' and 180lbs, the decedent was estimated to have a functional time of approximately 5.90 hours and a cold-water survival time of 8.29 hours.

5.8.3. There were approximately 2.5 hours between when the vessel first capsized to when the Good Samaritan vessel, JERSEY BOY, and the CGR6605 arrived on scene and recovered the owner/operator. The owner/operator was found without a PFD or immersion suit clinging to the bow of the CONCH'RD, which was partially submerged, while the decedent was reportedly last seen by the owner/operator as drifting away from him and the vessel without a PFD or immersion suit and eventually sinking below the surface of the water.

5.8.4. The decedent was never found nor recovered from the water, so the exact cause of death could not be determined. It is unknown if the decedent drowned, suffered from hypothermia and exhaustion, or suffered any other acute physical defect such as a heart attack or any combination. It is not known if the decedent's decision to make multiple attempts to swim into the pilothouse as reported by the owner/operator, affected his

cold-water survivability, or had he not removed his PFD, if that would have increased his survivability. The only factor the investigation was able to determine, strictly based on a statement provided by the owner/operator, is that the owner/operator spent more time out of the cold water than the decedent, which may have increased his survivability. By swimming into the pilothouse, the decedent put himself at risk for exhaustion, getting entrapped by pot lines or debris and further exposing himself to the cold-water temperature. The investigation could not determine exactly why the decedent chose to make multiple attempts to swim into the pilothouse of the vessel instead of staying with the owner/operator out of the water for as long as possible.

5.9. *USCG Search and Rescue response efforts.*

5.9.1. The investigation revealed that the decedent did not immediately drown when the vessel initially capsized or shortly after. The decedent was alive for the majority of the approximate 2.5 hours until the JERSEY BOY arrived on scene and recovered the owner/operator from the sinking vessel. When the DECC initially received the “unlocated” EPIRB alert from the USMCC, they immediately retrieved the EPIRB registration information and contacted the registrant who happened to be the father of the owner/operator. The owner/operator’s father indicated that he believed the vessel may be in distress. DECC immediately directed the SDBCC to make radio callouts for the EPIRB’s previously registered vessel, the GOLDRUSH II. Approximately 10 minutes later, DECC contacted the EPIRB’s registered owner who stated the vessel’s name was the CONCH’RD and that his son fished in the vicinity of Five Fathom’s Bank.

5.9.2. SDBCC command published a UMIB and made call outs via CH 16. Additionally, the SDBCC SAR coordinators began formulating a search and rescue plan for the Five Fathoms Bank area. The SDBCC SAR coordination team was aware that the CGC LAWRENCE LAWSON was in the vicinity of Five Fathoms Bank, but without a confirmed position they were not immediately tasked to search for the capsized vessel. The LAWRENCE LAWSON was conducting an LE boarding shortly after the SDBCC initially received the notification from the DECC. The investigation revealed that SDBCC was still in the process of formulating a search and rescue plan and did not immediately divert the LAWRENCE LAWSON to the Five Fathom Banks area. Five Fathom Bank is a popular fishing area in North Atlantic Ocean and is approximately 30 square nautical miles. Without an approximate location, and the overall size of the Five Fathoms Bank, it is highly unlikely had the SDBCC or DECC immediately diverted the LAWRENCE LAWSON to the Five Fathoms Bank area, it would have allowed the cutter to respond to the capsized vessel any sooner.

5.9.3. The LAWRENCE LAWSON was allowed to continue the LE boarding while SDBCC and the DECC were aware that a vessel may be in distress, however, they did not have coordinates of the EPIRB location at that point. The SAR coordination team believed that AIRSTA AC would be better suited to search a larger area faster. Once SDBCC received the EPIRB’s coordinates from the DECC, the LAWRENCE LAWSON was immediately diverted to the incident location. Small boat launch and recovery on the LAWRENCE LAWSON’s requires time to safely conduct the evolution; particularly when transporting members to and from vessels.

5.9.4. The CGR6605 arrived on-scene along with the JERSEY BOY at approximately 1525. AIRSTA AC was tasked by the DECC at 1446 to deploy to CONCH'RD's EPIRB location. It took approximately 45 minutes for the CGR6605 to deploy and arrive on scene. Initially the CGR6605 headed directly to the coordinates provided by the DECC but then picked up the 406 MHz signal of the EPIRB, which allowed them to home in on its exact location. According to COMDTINST M16130.2F, U.S. COAST GUARD ADDENDUM TO THE UNITED STATES NATIONAL SEARCH AND RESCUE SUPPLEMENT (NSS) To the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR), SAR units must not exceed a two-hour time limit for response. This also includes 30 minutes of preparation time. The CGR6605 arrived on-scene within 45 minutes of initial notification. This was within the allotted CG standard for response times.

5.9.5. Once on-scene, the CGR6605 Flight Commander decided not to deploy the helicopter's Rescue Swimmer. The Flight Commander and crew assessed the situation once on-scene and did not see any signs of life. The Flight Commander was not aware of the specifics of the vessel sinking and described the wreckage as looking like an explosion had occurred. He stated that the vessel was surrounded by pot buoys and tangled lines. Without any signs of life, he believed that it was not safe to put a Rescue Swimmer in the water due to the possibility of the swimmer getting caught/tangled in the pot lines. A Rescue Swimmer was deployed four hours later, once the vessel's inflatable life raft was discovered.



Figure 17. Photograph taken by STA CAPE MAY on Dec 23, 2020, after reports that the CONCH'RD had surfaced days after the incident.

5.9.6. The investigation determined that compliance with established Coast Guard SAR standards was outside the scope of its review. Any formal assessment of the effectiveness of the Coast Guard's SAR response efforts falls under the purview of the

SAR Coordinator (SC), who may initiate an after-action review or SAR case study in accordance with COMDTINST M16130.2F. However, based on the evidence reviewed during the investigation, it was observed that the Coast Guard's SAR response efforts were timely and consistent with COMDTINST M16130.2F. Furthermore, the investigation concluded that the SAR response was not a contributing factor to the loss of life of the CONCH'RD's crew member. While a formal compliance assessment was not conducted, the findings indicate that the SAR efforts were appropriate and effective in the context of the incident.

6. Conclusions

6.1. Determination of Cause

6.1.1. The initiating event for this casualty was the overloading/improper loading of the vessel with conch pots, which negatively impacted vessel's intact stability.

6.1.1.1. The owner/operator's lack of experience as a commercial conch fishing vessel captain, and his overconfidence in his abilities as an offshore charter fishing vessel Captain and professional bass fisherman, contributed to the owner/operator to unknowingly overload/improperly load the CONCH'RD with conch pot traps, which negatively impacted the vessels overall stability.

6.1.1.2. The owner/operator did not arrange for a stability test for conch service. He did not know the maximum number of traps allowed onboard, the appropriate stowage locations, or how to properly distribute the weight. A stability test with results and weight/stowage knowledge may have helped the owner/operator avoid overloading and/or improperly loading the vessel.

6.1.2. The first subsequent event was the fouling of the propeller.

6.1.2.1. The vessel's propeller was fouled by a pot buoy line that had parted from the buoy and became entangled in the vessel's propeller. A more effective system of retrieving conch pots and/or better materials to secure the pot buoy line to the buoy may have prevented the line from parting. The fouled propeller and subsequent actions from the owner/operator to engage the engine to free the line from the propeller was not the initiating event for the casualty. The improper loading/overloading of conch pots onboard the vessel was the initiating event.

6.1.3. The second subsequent event was the swamping of the vessel.

6.1.3.1. The CONCH'RD was not designed for offshore commercial conch fishing. The vessel's inherent design, freeing port size and proximity to the waterline, and a statement provided by the original ship builder indicated that the vessel was exclusively designed for protected waters as a Chesapeake Bay workboat. While the weather and sea state may not have been a factor in the casualty, the inability of the vessel to efficiently drain water from the main deck played a role in the casualty. Once the vessel became swamped with water, the already overloaded/improperly loaded vessel had no means to effectively drain water from the main deck.

6.1.4. The third subsequent event was the capsizing of the vessel.

6.1.4.1. The owner/operator provided a statement that described the vessel rolled towards its port side and subsequently capsized. The starboard side of the vessel was the working area of the vessel; it is believed that the port side contained the majority of the conch pots when the capsizing occurred. The vessel's inherent design did not allow for the balanced stowage of more than 80 conch pots weighing individually over 50lbs. Once the vessel became swamped with water after being improperly loaded, the vessel's metacentric height and weight distribution was already negatively affected by the excessive number of traps stowed on the port side and the vessel consequently capsized as a result. The loading of significantly less conch pots evenly distributed onboard the vessel and operating in waters that the vessel was designed for, may have prevented the capsizing of the vessel.

6.1.5. The fourth subsequent event was the loss of life.

6.1.5.1. Since the decedent's body was not recovered, the exact cause of death could not be determined. The owner/operator provided a statement that indicated that the decedent made multiple attempts to retrieve lifesaving gear such as immersion suits and PFDs by swimming through the opening in the pilothouse window and also attempted to locate and possibly manually deploy the CONCH'RD's inflatable life raft. The owner/operator survived and remained out of the water the majority of the time prior to being rescued and did not swim into the pilothouse or attempt to retrieve lifesaving gear. He limited exposure to the cold-water temperature and physical exhaustion. It is believed that based on the statement provided by the owner/operator alone, that the decedent's decision to make multiple attempts by swimming into the vessel's pilothouse to retrieve lifesaving gear further exposed him to the cold-water temperature and physical exhaustion. This decision may have been a factor in the loss of life that occurred.

6.1.5.2. The delay in the CONCH'RD's 406 MHz EPIRB signal transmission to the USMCC and USCG D5CC delayed USCG SAR response assets from responding and increased the amount of time both people spent in the cold water. It is believed that due to the stowage and location of the vessel's EPIRB, it did not transmit a signal until approximately one hour after the vessel capsized and both the owner/operator and the decedent initially entered the water. It was almost 45 minutes before the signal generated GPS coordinates to the location of the capsizing. The EPIRB was never recovered so it could not be determined if there was a design flaw or malfunction.

6.1.5.3. The investigation revealed that the vessel capsized suddenly and while there was little time for preparation to abandon ship and/or damage control, it is believed that the owner/operator may have had time to grab the "ditch bag" containing the EPIRB prior to jumping overboard since the EPIRB was reportedly located at the control station. By grabbing the "ditch bag" prior to jumping overboard, the owner/operator may have been able to manually activate the EPIRB immediately upon entering the water instead of relying on the automatic water activation. This may have alerted the D5CC sooner and allowed a more rapid deployment of USCG SAR resources.

6.1.5.4. The investigation could not determine if the inflatable life raft: 1) failed to properly deploy, 2) deployed but was trapped underneath the capsized vessel, or 3) did not deploy until the vessel sank to the appropriate depth. If the raft deployed while the decedent was still alive in the water, it may have enabled the decedent to climb into the

raft and await rescue in lieu of extended time in cold water and physical exertion. Additionally, it may have dissuaded him from making a decision to repeatedly swim into the vessel attempting to retrieve survival gear.

- 6.2. Evidence of Act(s) or Violation(s) of Law by Any Coast Guard Credentialed Mariner Subject to Action under 46 United States Code (USC) Chapter 77: there were no acts of misconduct, incompetence, negligence, unskillfulness, or violations of law by a credentialed mariner identified as part of this investigation.
- 6.3. Evidence of Act(s) or Violation(s) of Law by U.S. Coast Guard Personnel, or any other person: there were no acts of misconduct, incompetence, negligence, unskillfulness, or violations of law by any U.S. Coast Guard personnel, or any other person, identified as part of this investigation.
- 6.4. Evidence of Act(s) Subject to Civil Penalty: there is no evidence of acts subject to civil penalty.
- 6.5. Evidence of Criminal Act(s): there is no evidence of criminal acts.
- 6.6. Need for New or Amended U.S. Law or Regulation: none.
- 6.7. Unsafe Actions or Conditions that were not causal factors: no unsafe actions or conditions that were not causal factors were identified during this investigation.

7. Actions Taken Since the Incident

7.1. Findings of Concern: One

7.1.1. Coast Guard investigators identified the following measures that all commercial conch fishing vessel crewmembers and operators should consider mitigating risk associated with improper loading of conch pots and the impact to vessel stability:

7.1.1.1. Owners and operators are encouraged to capitalize on the stability instruction requirements for uninspected commercial fishing vessels in 46 CFR 28.530. As stated in this cite, “the rules provide maximum flexibility for owners and qualified individuals to determine how (stability information) is conveyed” to masters or individuals in charge of their vessels. Operating personnel in the commercial conch fishing industry may not have specialized training in stability.

7.1.1.2. Owners, operators, and masters are encouraged to attend formalized stability training that should include stability principles regarding overloading, improper loading that negatively affects weight distribution, deck drainage, and other issues particular to conch vessels.

7.1.1.3. Owners, operators, masters, qualified individuals, and other personnel should maintain an active awareness of vessel stability at all times and work with Coast Guard Commercial Fishing Vessel Examiners if stability questions arise. Stability awareness may also be addressed during Commercial Fishing Vessel Industry Training Days.

8. Recommendations

8.1. Safety Recommendation: None

8.2. Administrative Recommendations

8.2.1. It is recommended that the Commandant provide a copy of this report to the following upon closure:

8.2.1.1. NOAA

8.2.1.2. Commercial Fishing Vessel Advisory Committee

8.2.1.3. National Association of Marine Surveyors

8.2.1.4. Society of Accredited Marine Surveyors

8.2.1.5. New Jersey Department of Fish and Wildlife

8.2.2. Recommend that this casualty investigation be closed.



Chief Warrant Officer, U.S. Coast Guard
Investigating Officer