



5830

20 June 2023

MEMORANDUM

FINAL ACTION OF MAJOR INCIDENT INVESTIGATION REPORT INTO THE CIRCUMSTANCES SURROUNDING THE CGC WINSLOW GRIESSER COLLISION ON 08 AUGUST 2022 NEAR PUERTO RICO

The report of the Major Incident Investigation (MII), conducted under the provisions of the Major Incident Investigation Manual, COMDTINST M5830.4 (series) and LANT memo 5830 of 11 August 2022, that investigated the circumstances surrounding the CGC WINSLOW GRIESSER collision with the P/C DESAKATA in the vicinity of Puerto Rico on 08 August 2022, complies with the applicable regulations and guidance. Accordingly, this report is approved with the following comments.

- (1) The MII Board described the DESAKATA as the give-way vessel in a crossing situation with the CGC WINSLOW GRIESSER on the DESAKATA's starboard side, and that the DESAKATA had the responsibility to take early and substantial action to keep well clear under Rule 8 (Action to Avoid Collision) and Rule 15 (Crossing Situation) of 72 COLREGS. The MII Board described in the Cause of the Mishap that, considering the on-scene conditions, the DESAKATA failed to maintain a proper lookout as required by Rule 5 (Lookout) of 72 COLREGS.
- (2) The MII Board stated that it could not factually conclude whether or not the CGC WINSLOW GRIESSER maintained a proper lookout. The facts available provide sufficient evidence that the CGC WINSLOW GRIESSER failed to maintain a proper lookout as required by Rule 5 that would have enabled the cutter crew, under the conditions, to visually see the DESAKATA in time to take necessary action to avoid collision.
- (3) The MII Board determined that neither the DESAKATA nor the CGC WINSLOW GRIESSER failed to maintain a safe speed as required under Rule 6 (Safe Speed) of 72 COLREGS. The facts available provide sufficient evidence that the CGC WINSLOW GRIESSER failed to maintain a safe speed that would have enabled the cutter crew, under the conditions, to take necessary action to avoid collision.
- (4) Despite the determination of the MII Board that the DESAKATA was the give way vessel in a crossing situation with the CGC WINSLOW GRIESSER, the cutter's failure to maintain proper lookout and to maintain safe speed prevented critical actions by the cutter crew that ultimately could have avoided the collision or minimized its consequences.

- (5) The public rightly expects the Coast Guard as professional mariners to maintain and emulate the highest standards of prudent seamanship and navigation. We did not do so here with tragic consequences for members of the public we serve. We will do better.

VADM K. E. Lunday
Digitally signed by
VADM K. E. Lunday
Date: 2023.06.20
23:41:39 -04'00'

Kevin E. Lunday
Vice Admiral
Atlantic Area Commander
U.S. Coast Guard



5830
15 Nov 2022

MEMORANDUM

(b) (6)

From: Timothy D. Hammond, CAPT
Major Incident Investigation Board President

To: Kevin E. Lunday, VADM
LANTAREA (LANT-00)

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES SURROUNDING CGC
WINSLOW GRESSIER COLLISION ON 8 AUGUST 2022 NEAR PUERTO RICO

Ref: (a) Major Incident Investigations Manual, COMDTINST M5830.4
(b) Safety and Environmental Health Manual, COMDTINST M5100.47D

This investigation is being conducted and this report is being prepared in contemplation of litigation and to assist attorneys, acting on behalf of the Judge Advocate General, representing interests of the United States in this matter.

1. **Action of the Convening Authority:** As of the date of this report, the Convening Authority has neither taken nor directed any corrective action.
2. **Executive Summary:** On 8 August 2022, at approximately 0930, the DESAKATADO, a 1977 23 foot in-length Robalo center console (“C/C”) vessel, got underway from Cerro Gordo, Dorado, Vega Alta, Puerto Rico with two crewmembers on-board—the C/C Operator and C/C Crewmember. The purpose of their voyage was recreational fishing near Dorado, Puerto Rico, and out to approximately 4.5 miles north of Dorado, Puerto Rico near a Fish Aggregating Device buoy.

At approximately 1335, the CGC WINSLOW GRIESSER (WPC-1116) (“WG”) got underway from San Juan, Puerto Rico. Upon clearing the harbor, the WG proceeded on a westerly course in order to embark Dominican Navy Shipriders near Punta Cana, Dominican Republic, for planned time of 1600 (a distance of roughly 150nm). Sunset for Punta Cana on 08 August 2022 was 1904. The weather conditions offshore North of Puerto Rico were six to eight foot seas out of the East and winds 15-18 knots gusting to 22 knots out of the East.

At 1411, the WG collided with the C/C, approximately four nautical miles north of Dorado, Puerto Rico. The WG recovered two people from the water—the C/C Operator had minor

injuries, and the C/C Crewmember was unconscious and later determined by medical professionals to be deceased.

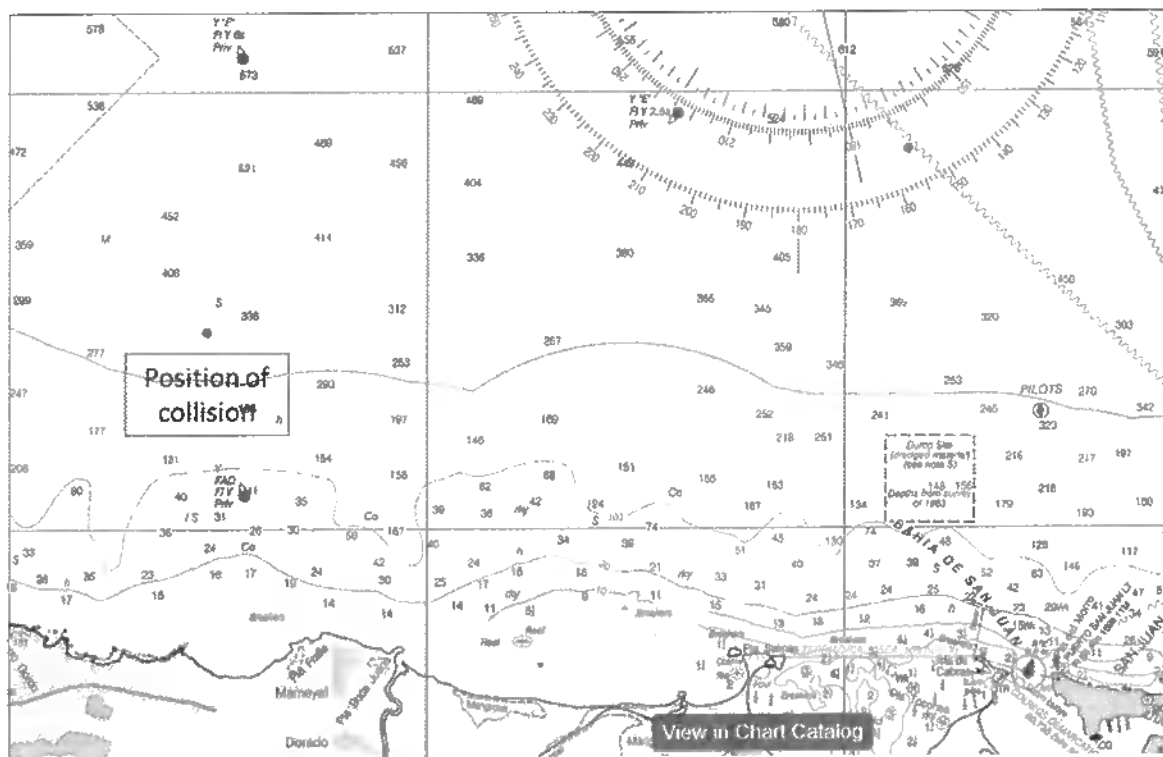


Figure 1: MII estimated position of collision.

The mishap occurred because neither the WG nor the C/C saw one another and, as a result, failed to take any action that could have avoided or reduced the severity of the collision. A combination of human factors, environmental conditions, and engineering factors led to this unfortunate accident.

3. Preliminary Statement:

a. Authority: The Coast Guard Atlantic Area Commander convened this MII in accordance with reference (a). The Convening Order, dated 11 August 2022, is enclosure (1) to this report.

b. Purpose: This MII was convened to inquire into the facts and circumstances surrounding the Coast Guard mishap involving the WG, to prepare a publicly releasable report, and gather and preserve all available evidence for use in any litigation, claims, disciplinary actions, administrative proceedings, and for other purposes.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

c. Investigation Composition: I served as MII Board President, with LCDR (b) (6), (b) (7)(C) as Legal Advisor, LT (b) (6), (b) (7)(C) as Recorder, and Coast Guard Investigative Service Special Agent (b) (6), (b) (7)(C) as investigator.

d. Conduct of the Investigation: The MII Board met at Sector San Juan, Puerto Rico, from 15 August through 18 August 2022, and again on 31 August 2022 in Portsmouth, Virginia. While at Sector San Juan, the MII Board assessed and documented the mishap site, collected documentary evidence, and conducted witness interviews. Prior to the MII Board's arrival at Sector San Juan, four other investigative parties conducted their evidence collection and interviews concurrently. The Coast Guard Investigative Service (CGIS), the National Transportation Safety Board (NTSB), Coast Guard Marine Casualty Investigators, and the Commandant-directed Mishap Analysis Board (MAB) all conducted investigations and shared applicable evidence with the MII.

All witnesses were cooperative and openly discussed the mishap under investigation. Due to scheduling conflicts, some interviews were conducted and recorded via Coast Guard Microsoft Teams. All in-person interviews were conducted in a private setting, ensuring members had the opportunity to freely express observations and discuss the available evidence. In-person interviews were recorded by CGIS using Axon Evidence software.

Notably, the CGC WINSLOW GRESSIER's Commanding Officer (CO), Officer of the Deck - Underway (OOD), and Quartermaster of the Watch (QMOW) were available for interviews but invoked their right to counsel and did not answer questions under the advice of counsel.

Unless otherwise noted, all times listed in this report are approximate and in Atlantic Standard Time using as 24-hour format.

4. Table of Contents:

Section	Page #
1. Action of the Convening Authority	1.
2. Executive Summary	1.
3. Preliminary Statement	2.
4. Table of Contents	3.
5. Findings of Fact	4.
a. Accident Summary	4.
b. Background	4.
c. Sequence of Events	10.
d. Maintenance	15.
e. Vessel Systems	15.
f. Weather	17.
g. Crew Qualifications	18.
h. Medical	19.
i. Operations and Supervision	19.

j. Additional Areas of Concern	20.
6. Human Factor Analysis	22.
7. Statement of Opinion	23.
8. Attestation	25.

5. Findings of Fact:

- a. Accident Summary: On the afternoon of 8 August 2022, the WG got underway from San Juan, Puerto Rico, with the mission to embark two Dominican Republic Navy Shipriders in the vicinity of Punta Cana, Dominican Republic, then patrol in the Mona Pass in accordance with the Seventh Coast Guard District and Sector San Juan tasking. After clearing the harbor, the WG proceeded on a westerly course at 28 knots. At 1410, the C/C was on a northerly course at 5 knots off the port bow of the WG on a crossing course. At 1411, the WG collided with the C/C, approximately four nautical miles north of Dorado, Puerto Rico. Due to the collision, the C/C Operator received minor injuries, and the C/C Crewmember was unconscious and, subsequently, was pronounced deceased.
- b. Background:
 - i. The WG is a Sentinel Class 154-foot Fast Response Cutter (FRC). The WG was the 16th cutter built by Bollinger Shipyards in Lockport, LA, under phase one of the FRC contract. The WG was commissioned on 23 December 2015, and is homeported in San Juan, Puerto Rico. Commanded by a Lieutenant Commander, the WG has a crew of 24 active-duty personnel and is under the operational control of the Seventh Coast Guard District (CGD7) and under the administrative control of Sector San Juan (SSJ), Puerto Rico. The WG was under the tactical control of SSJ for this patrol.
 - ii. CGD7/SSJ/Coast Guard Liaison Officer (CGLO) Dominican Republic worked from early July until early August 2022 to coordinate Dominican Republic Navy Shipriders onboard an SSJ FRC. This was to be the first time in at least two years that Dominican Republic shipriders were embarked on a USCG asset. CGC HERIBERTO HERNANDEZ (WPC 1114) was identified as the vessel supporting this operation. On 1 August 2022, the CGC HERIBERTO HERNANDEZ (WPC 1114) suffered an engine casualty, so the WG was identified to support the Dominican Republic shiprider operation. On Friday, 5 August 2022, D7(dre) relayed to CGLO Dominican Republic that the WG would embark the two Dominican Republic Shipriders on Monday, 8 August at 1600 in Punta Cana, Dominican Republic. The transit distance from SSJ to Punta Cana is approximately 150 nautical miles (NM). (Exhibits 2, 33)
 - iii. C/C DESAKATADO, a 1977 23 foot in-length Robalo center console (“C/C”) pleasure craft, got underway from Cerro Gordo, Dorado, Vega Alta, Puerto Rico with two crewmembers on-board—the C/C Operator and C/C

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

Crewmember. The purpose of their voyage was recreational fishing near Dorado, Puerto Rico, and out to approximately 4.5 miles north of Dorado, Puerto Rico near a Fish Aggregating Device buoy. (Exhibits 13, 26)

- iv. The operator of the C/C recalled seeing another US Coast Guard cutter transiting westbound the previous week, which altered course to the north and then turned west when they were further away. (Exhibit 13)
- v. There is a discrepancy between the WG's GPS timestamp on the SeaWatch Electronic Chart Display and Information System (ECDIS) and the WG's closed-circuit television (CCTV) cameras creating a seven-minute difference. All times associated are approximate with the CCTV timestamps adjusted to match the GPS timestamp. (Exhibits 19, 23)
- vi. Both vessels were operating outside the navigational lines of demarcation and subject to the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs). (Exhibit 14)
 1. Rule 5: Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and the risk of collision.
 2. Rule 6: Safe Speed. Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions. In determining a safe speed the following factors shall be among those taken into account:
 - (a) By all vessels:
 - (i) The state of visibility;
 - (ii) The traffic density including concentration of fishing vessels or any other vessels;
 - (iii) The maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;
 - (iv) At night, the presence of background light such as from shore lights or from back scatter of her own lights;
 - (v) The state of wind, sea, and current, and the proximity of navigational hazards;

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

(vi) The draft in relation to the available depth of water.

(b) Additionally, by vessels with operational radar:

(i) The characteristics, efficiency and limitations of the radar equipment;

(ii) Any constraints imposed by the radar range scale in use;

(iii) The effect on radar detection of the sea state, weather, and other sources of interference;

(iv) The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;

(v) The number, location, and movement of vessels detected by radar;

(vi) The more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

3. Rule 7: Risk of Collision:

- a. Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.
- b. Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.
- c. Assumptions shall not be made on the basis of scanty information, especially scanty radar information.
- d. In determining if risk of collision exists the following considerations shall be among those taken into account:
 - i. Such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change.

- ii. Such risk may sometimes exist even when the appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.

4. Rule 8 Action to avoid collision:

- a. Any action taken to avoid collision shall be taken in accordance with the Rules of this subpart (Rules 4-19) (§§ 83.04 through 83.19) and shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.
 - b. Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided.
 - c. If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.
 - d. Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.
 - e. If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.
5. Rule 15(a) Crossing situation: When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.
6. Rule 16 Action by Give-way Vessel: Every vessel which is directed to keep out of the way of another vessel shall so far as possible, take early and substantial action to keep well clear.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

7. Rule 17 Action by Stand-on Vessel:

- a. Where one of two vessels is to keep out of the way the other shall keep her course and speed.
- b. The latter vessel may, however, take action to avoid collision by her maneuver alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these Rules.
- c. When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give way vessel alone, she shall take such action as will best aid to avoid collision.
- d. A power-driven vessel which takes action in a crossing situation in accordance with (a).(i). of this Rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.
- e. This rule does not relieve the give-way vessel of her obligation to keep out of the way.

vii. WG CO's Standing Order 2–Guidance for the UNDERWAY OOD (Exhibit 36)

1. Overview: This order provides expectations and responsibilities for the OOD and all other bridge watch standers when the cutter is not in port. Additional guidance is provided in STANDING ORDER 4 when at anchor or on a mooring ball.
2. Responsibilities:
 - a. Safe navigation of the ship. Safe navigation is the OOD's top priority, and shall be done in accordance with the Command Navigation Standards, the Navigation Rules, and other applicable doctrine. Maximize use of available sensors to scan for navigation hazards, other vessels, and potential targets of interest.
 - b. Maintain the Surface Picture. Detect and classify all vessels within sensor range. Take action as appropriate for potential targets of interest. Correlate targets from the common

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

operating picture (COP). Maneuver in accordance with the Navigation Rules.

- c. Execute operational tasking. At all times, maintain awareness of the tactical commander (TACON), other surface and air units in the vicinity, and the current operational tasking.
- d. Manage Communications. Monitor circuits and configure radios in accordance with the appropriate communications plan. Make and respond to radio calls in a professional manner, using the correct call signs and frequencies. Avoid identifying the cutter on unencrypted circuits when possible to prevent counter-detection.
- e. Maintain the Ship's Logs. Maintain and update the ship's log in accordance with the Command Navigation Standards. In addition to standard entries, log any unusual or significant events such as strange weather phenomenon or contradictory or unclear orders from TACON. Ensure appropriate Navigation logs are initiated in the event of an ECDIS failure and a Bell Log for engine orders answered from local control.

3. Collision Avoidance:

- a. Maneuver the ship in a seamanlike manner. Remember that a substantial alteration of course, significant enough for another vessel to observe aspect change, is typically the best method of communicating intentions.
- b. If a contact's bearing drift is difficult to ascertain visually or via radar, leverage the compass-equipped binoculars on the bridge to take discreet readings (in accordance with District 7 directive).
- c. Our ship is not in compliance with the rules of the road when running with extinguished or dimmed navigation lights or with AIS in secured transmit mode. OOD's should therefore be aware that some vessels may not maneuver to avoid us even when obliged under the Navigation Rules. In addition to navigating with caution, the following rules are in effect:
 - i. With navigation lights dimmed or extinguished at night – maintain a 3nm CPA from all vessels.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- ii. With AIS in secure transmit – do not assume that vessels will maneuver to avoid as the give-way vessel.

4. Guidance to Conning Officers

- a. When I am on the bridge, tell me your intended scheme of maneuver. Address me directly – do not assume I hear your conversations with the OOD or other bridge team members.
 - b. Execute your intended scheme of maneuver using affirmative helm and engine commands. FRC's are incredibly maneuverable when you correctly apply power – do not let the environment “drive” the ship when you are conning.
 - c. Always be mindful of the effect wind and seas may have on operations. Favor a stable up- or down-swell course when conducting deck evolutions. Notify personnel on deck when executing maneuvers that impact the stability of the vessel.
 - d. Use all the tools at your disposal. When precise, close-aboard maneuvering is required do not hesitate to bring up an engine, turn on the bow thruster, and shift control to the Pendant.
- c. Sequence of Events:
- i. From 6 August 2022 to 8 August 2022, the WG was in Charlie status. On 06 August, CO/OPS attend patrol brief at SSJ and crew commenced getting underway checklist in accordance with CO's standing orders. (Exhibits 15, 16, 29)
 - ii. On 8 August 2022 at 0730, liberty expired and the WG crew made preparations to get underway. (Exhibit 15)
 - iii. At 0800, the crew conducted an initial Navigation Brief and risk assessment with a risk rating of RISK/GAIN of LOW/MEDIUM (Exhibits 15, 16)
 - iv. Shortly after 0805, WG engineers began working on the ship's service diesel generator raw water system to fix clogged strainers and completed repairs at 1245. (Exhibits 11, 15)
 - v. At 0930, C/C Operator and C/C Crewmember got underway from Cerro Gordo, Dorado, Vega Alta, Puerto Rico on the C/C. The purpose of their voyage was recreational fishing near Dorado, Puerto Rico and as far out to

- the Fish Aggregating Device Buoy approximately 4.5 miles north of Dorado, Puerto Rico. He recalled the seas to be about six feet, but stated it was fishable under the conditions. (Exhibit 13)
- vi. At 1310, WG conducted a second Navigation Brief and validated their previous risk assessment with a rating of RISK/GAIN of LOW/MEDIUM. (Exhibits 2, 15, 16)
 - vii. At 1325, the WG Set Special Sea Detail.¹ (Exhibit 15)
 - viii. At 1335, the WG got underway. The Executive Officer (XO) was the conning officer under the instruction of the CO. The OOD was the Navigation Evaluator with Crewmember 1 training under OOD's instruction. All navigation equipment was operating normally, AIS transmitted in standard mode. (Exhibits 2, 15, 16)
 - ix. At 1340, Special Sea Detail was secured. (Exhibit 16)
 - x. At 1345, the OOD assumed the Deck and Conn with Crewmember 1 continuing to break-in. Both the OOD and Crewmember 1 moved to the center helm/conning position upon relieving the Deck and Conn watch. The OOD continued training Crewmember 1 on the navigation and helm systems. The QMOW was at the QMOW desk, which was located on the portside aft section of the WG's bridge. (Exhibits 1, 11, 17, 18)
 - xi. At 1346, Crewmember 4 went to the WG's aft deck of the pilothouse in the migrant holding area. (Exhibit 7)
 - xii. At 1347, the WG cleared the harbor, altered course to 350°T, and increased speed to 21 knots. The CO remained on the bridge in the CO's chair to review the tracklines for the transit to Punta Cana. (Exhibits 1, 11, 19, 20)
 - xiii. At 1351, a new trackline labeled "SSJ to Punta Cana, Dominican Republic" was activated. The new trackline was charted for 275°T at 16 knots; however, the ship's speed over ground (SOG) was 29.0 knots. The scale of the chart display was set to 1.5 NM and there were two radar/Automatic Identification System (AIS) populated contacts to the northeast of WG's position displayed on screen, at an approximate range of 2000 yards. (Exhibits 11, 19, 20)

¹ Special Sea Detail is generally defined as the assignment of personnel to stations and duties during periods when the ship is being handled in restricted waters and to prepare for getting underway.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MI) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- xiv. At 1353, AIS shifted to non-broadcast mode. (Exhibit 20)
- xv. At 1354, WG was on a course of 288°T at 28.1 knots. There were five AIS contacts on the radar screen—two contacts at 090°R, one contact at 005°R, and one at 355°R. The range could not be determined from the playback screen. (Exhibits 19, 20)
- xvi. At 1355, the SeaWatch data log viewer opened to “Own ship data” tab. (Exhibit 19)
- xvii. At 1355, Crewmember 3 transited to the bridge in preparation for the next watch at 1500. While on the bridge, Crewmember 3 observed the QMOW watchstander at the QMOW console located portside aft, OOD at the center conning station with Crewmember 1, and the CO in his chair performing computer work. The WG was transiting down-swell at their normal transit speed when heading to the patrol area, and a lot of sea spray was hitting the forward windows. The swells appeared to be approximately eight feet. Crewmember 3 then conversed with the QMOW about the details of the next watch. (Exhibits 3, 6, 21, 28)
- xviii. At 1356, the SeaWatch Data log viewer was open but displaying Ship Position Log tab. (Exhibit 19)
- xix. At 1357, the WG’s SeaWatch Navigation Scale was at 1.5 NM, and course over ground (COG) and SOG was at 300.8°T at 26.1 knots. One AIS-only contact at 005°R estimated 800 yards based on cursor at 2527 yards from WG. Another AIS-only contact appeared at 230°R estimated at 600 yards. Additionally, the “Diagnostics” tab was open to the data log page. (Exhibits 19, 20)
- xx. At 1358, the SeaWatch Chart index page was displayed covering the entire navigation picture. (Exhibit 19)
- xxi. At 1359, the Chart index page reduced size to cover one-half of the displayed screen. The trackline was visible, and the AIS-only contacts were astern of WG. (Exhibits 19, 20)
- xxii. At 1400, the COG/SOG changed to 264.5°T at 25.8 knots. The WG’s ordered course and speed had not changed from 335°T at 16 knots. (Exhibit 19)
- xxiii. At 1401, the WG’s COG/SOG changed to 275.8°T at 25.9 knots. (Exhibit 19)

- xxiv. Between 1400 to 1415, American Airlines flight 1613 was on approach from Miami to Puerto Rico. Witness 1 was seated in the window seat 5A. Witness 1, a Puerto Rico resident and fisherman who routinely fishes the area offshore Dorado, Puerto Rico, observed the sea conditions as choppy with many white caps and estimated seas at around 6 feet. Witness 1 stated that while looking thru his window, he saw a Coast Guard Cutter (CGC) heading west making way and it seemed that it was going fast. At the same time, he saw a smaller boat with two black OBE coming north from the shore of PR making his way also. Both of the boats were near the shore of PR and none of the boats seemed like they were stopping or change their direction from what he was able to see from the airplane. Based on his observations, he started thinking they were going to collide with each other since both were going on an intercept direction, but since the CGC was bigger, he started thinking that the CGC had the right of way. He observed that neither vessel altered course or speed and saw the WG collide with the smaller boat. (Exhibit 13)
- xxv. At 1407, the Chart scale changed from 1.5 NM to 3.0 NM. There were no contacts populating on the screen. (Exhibit 19)
- xxvi. At 1409:55, the C/C was off the WG's port bow at approximately 350°R at a range of 309 yards then disappears below the wave in the trough at approximately 1409:59. The C/C Operator was talking to the C/C Crewmember, and they were setting-up fishing lines. The C/C Operator was sitting on the starboard side operating the vessel while the C/C Crewmember was sitting on the port side of the C/C. The C/C Operator did not see the WG while they were headed north at clutch-speed, approximately five knots. (Exhibits 13, 22, 23)
- a. The Relative Motion was determined by Maneuvering Board Solution to be approximately 350° relative bearing (R) at 31 knots, which equates to 17.22 yards/sec. (Exhibit 22)
- xxvii. At 1410, the WG COG/SOG changed to 282.1° true bearing (T) at 28.9 knots. There were no contacts populating the screen. (Exhibit 19)
- xxviii. At 1410:04, the C/C reappeared off the WG's port bow at approximately 350°R at 120 yards and remained visible until impact at 1410:13. (Exhibits 22, 23)
- xxix. At 1410:13, a teal-colored C/C vessel with a white T-top crosses the WG's bow from the port side and does not clear the bow. The two occupants of the C/C were ejected from the vessel and injured. (Exhibit 15, 23)

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MI) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- xxx. At 1410, crewmembers on the WG heard a noise and felt an abnormal movement of the ship. A crewmember then notified the bridge watch that the ship had hit another vessel. All members of the bridge were unaware of WG striking the center console. (Exhibits 1, 3, 5-9, 11, 28, 29)
- xxxii. At 1410:47, the WG reduced speed and turned starboard to head toward the impact site. WG COG/SOG changed to 261.7°T at 16.4 knots (Exhibits 1, 5, 11, 19, 23)
- xxxiii. At 1411:15, the C/C is observed off the starboard bow of the WG. (Exhibit 23)
- xxxiv. At 1412:27, the crew of the WG dispatch a life ring buoy to rescue the injured C/C passengers. A WG crewmember grabbed a boat hook and hooked it on a life ring to assist the passengers and tried to bring them onboard but was unsuccessful due to the sea state and rocking of the WG. (Exhibits 8, 23)
- xxxv. At 1418, the WG CO assumed the deck and conn and notified SSJ that the WG had collided with the C/C. (Exhibits: 15, 32)
- xxxvi. At 1426, the WG launched its Over the Horizon (OTH) cutter boat and recovered both C/C passengers from the water. (Exhibit 8, 15)
- xxxvii. At 1435, the OTH was recovered after several attempts due to the six to eight foot swells. (Exhibits 5, 7, 15)
- xxxviii. At 1437, Crewmember 6 directed two members to escort the C/C Operator to the deck aft of the bridge to receive medical assistance. Crewmember 6 entered the OTH and checked the C/C Crewmember for signs of life. However, the C/C Crewmember had no pulse, was not breathing, and unresponsive pupils. The C/C Crewmember had physical damage to his mouth and his organs were exposed. The Crewmember 6 attempted to reduce bleeding with tourniquets but did not observe blood moving through the body. (Exhibits 9, 15, 28)
- xxxix. At 1440, the WG departed scene to begin emergency transit to San Juan harbor. (Exhibit 15)
- xi. At 1550, the WG moored starboard side to Charlie South Pier at Sector San Juan and were met by local Emergency Medical Services personnel. (Exhibit 15)

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MI) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- d. Maintenance: The WG was in a Fully Mission Capable status in the Asset Logistics Management Information System (ALMIS) as of 3 Aug 2022. Prior to getting underway on 8 Aug 2022, the WG engineers conducted their light off procedures and noted an issue with the ship service diesel generator (SSDG) saltwater cooling system. The engineers secured the system and cleaned debris from the sea chest and raw water strainers. The repairs took approximately four hours, which caused a delay in getting underway for their assigned mission. (Exhibits 1, 2, 11)
- e. Vessel Systems:
- a. The FRC Bridge windows are separated by frames approximately 4.5 inches wide. The engineering staff at Coast Guard Headquarters FRC program office produced an analysis of the potential blind spots created by the window frames for a person conning the ship from the helm position. The resultant diagram shows a 10-degree blind spot from 345°R to 355°R to the bow of the ship. (Exhibit 24)



Figure 2: View from FRC center conning position



- b. The FRC's CCTV system has a camera mounted on the mast with an unobstructed view at a height of 40 feet above the waterline, 20.5 feet higher than the sightline of a person located on the bridge of the ship. (Exhibit 37)
- c. The Puerto Rico Municipal Police Maritime and Divers Unit conducted an underwater hull examination of the WG on the afternoon of 8 August 2022. The examination showed marks on both sides of the hull below the waterline. The divers did not discover any other damage to the WG. (Exhibit 25)
- d. The C/C vessel involved in the collision was equipped with two 115 horsepower Yamaha outboard engines; two Global Positioning System (GPS) systems, including a handheld GPS; a depth finder with navigation charts; and a new fixed-VHF radio. The vessel was not equipped with radar, Emergency Position-Indicating Radio Beacon (EPIRB), or an AIS system. (Exhibit 13)
- e. The remains of the C/C washed ashore at Cerro Gordo, Dorado, Vega Alta, Puerto Rico. Upon visual inspection of the remaining forward section of the vessel, the path of engagement appeared to be approximately 90 degrees and just forward of the center console. The forward section of the hull indicated numerous fractures of separation from the rear section forward hull as well as numerous stress fractures on the port and starboard sides of the vessel.² Due to the vessel's location in an unsecure position and the time between it washing ashore and the investigators getting on scene, the vessel appeared to have been tampered with by unknown persons. Due to the tampering, investigators did not conduct a forensic

² In the center of the vessel, a metal tube shows a bent impression suspected of the impact. The cause of the impression of the metal tube is unknown and could not be matched to the WG.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
 INVESTIGATION (MII) INTO THE CIRCUMSTANCES
 SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
 AUGUST 2022 NEAR PUERTO RICO

5830
 15 Nov 2022

analysis or review of the vessel. The aft section of the vessel was not recovered and is presumed sunk in the vicinity of the mishap site. (Exhibit 26)

f. Weather:

- a. The following is a the from National Oceanic and Atmospheric Administration’s (NOAA) Coastal Weather Forecast from zone (AMZ712-090330) (Exhibits 5, 27):

Coastal Waters of Northern Puerto Rico out 10NM 1106 AM Mon Aug 8 2022

...SMALL CRAFT SHOULD EXERCISE CAUTION....

REST OF TODAY...East winds 15 to 20 knots. Seas 4 to 6 feet with occasional seas up to 8 feet. Light swells. Scattered showers. Isolated thunderstorms.

- b. The observed weather for North Coast Puerto Rico on August 08, 2022 was:

Temperature (Fahrenheit)		
High	Dew Point	Relative Humidity
88	75	66%
Precipitation (Inches)		
0.00		
Wind Speed (knots)/ Direction (True)		
Highest Speed	Highest Gust Speed	Wind Direction
17	21kts	070T
Seas/Swells Direction (True) / Height (Feet)		
Seas	Swells	Combined Sea state
070T / 2ft	090T / 5.2ft	090T / 6-8ft
Visibility		
Unlimited		Clear Skies

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MI) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

g. Crew Qualifications:

i. WG Bridge Members:

- a. The OOD was fully qualified in their watch position as the Underway Officer of the Deck and had recently passed their renewal of the Deck Watch Officer (DWO) Exam on 25 July 2022. While TMT does not reflect the OOD qualification, Direct Access and the member's Permanent Data Record include the qualification code X10812 Watch Qualification System (WQS) Underway OOD WPC 154 dated 11 November 2021 as Approved/Official and Good for Proficiency. Additionally, the OOD was issued a CG-3307 Performance and Discipline (P&D-26) on 11 November 2021 documenting the granting of his qualification as an Underway Officer of the Deck. (Exhibit 30)
- b. Crewmember 1 was the break-in OOD and not qualified.
- c. The QMOW watchstander was fully qualified in their watch position as the Quartermaster of the Watch (QMOW) as documented by CG-3307 Performance and Discipline (P&D-26) dated 17 August 2021. While TMT does not reflect the QMOW qualification, Direct Access and the member's Permanent Data Record include the Competency Codes QMOW and WQS Lookout (All Cutters), both as Approved/Official and Good for Proficiency. (Exhibit 31)

ii. C/C Operator Experience:

- a. The C/C Operator possesses the Puerto Rico Department of Natural and Environmental Resources (DRNA) Navigation License and completed a USCG Boating Safety Course. (Exhibit 13)
- iii. Afloat Training Office (ATO) NW Everett conducted a Tailored Ship Training Availability - Small Cutter (TSTA-S) on CGC WINSLOW GRIESSER from 18 to 22 April 2022. The time between TSTA-S visits was 48 months (24-month cycle). Due to an MDE casualty, the cutter was unable to complete all requirements of the TSTA-S. (Exhibit 38)
- iv. The ATO did not assess the Navigation and Seamanship Training Team (NSTT), and Engineering Training Team (ETT) due to the MDE casualty and the ship's inability to get underway for drill. The Damage Control

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- Training Team (DCTT) was assessed to be “Certified Effective.” (Exhibit 38)
- v. The ATO noted in their report: “Despite not being able to get underway, NSTT maximized their time with ATO to provide realistic training to the crew at a fast cruise environment. The OBTT members had a thorough understanding of the crew’s knowledge level and drill objectives. The training resulted in the unit being at a higher operational readiness status.” (Exhibit 38)
 - h. Medical: All WG crewmembers on the bridge submitted to urinalysis and blood testing post mishap with negative results of any prohibited substances. There is no evidence that the crew received inadequate rest or was fatigued, and the interviews did not raise any concern with regard to medical readiness. Toxicology results for C/C Operator indicated no use of alcohol or drugs. The MII was unable to obtain a copy of the autopsy report for the C/C Crewmember. (Exhibit 34)
 - i. Operations and Supervision: A discussion of the operational tempo and experience level of the crew and the oversight of the mission.
 - a. District Seven Operational Planning Direction requires Sector to maintain a continuous 1.0 FRC presence in the Mona Pass for Response Operations. (Exhibit 39)
 - b. To increase the cooperative international relationships with the government of the Dominican Republic, District Seven (D7), SSJ, and the Dominican Republic Navy coordinate operations to include the use of shipriders. Due to COVID and assets availability, this program was not in use for the past two years. Beginning in early July, D7, SSJ, and CGLO Dominican Republic coordinated a return to shiprider operations. Due to an engineering casualty onboard the originally scheduled FRC, the WG was tasked with the shiprider operations on 05 August 2022. The WG was directed to embark the two Dominican Republic shipriders on 08 August 2022 at 1600 local in Punta Cana, Dominican Republic. (Exhibit 33)
 - c. In order to facilitate the embarkation of Dominican Navy Shipriders, CO SSJ authorized a gap in coverage between FRCs. (Exhibit 33)
 - d. It is common practice among the FRCs to depart San Juan and transit at full speed in order to get to a relief point between cutters are at Arecibo, Puerto Rico, which is about a two hours transit from San Juan at 25 knots. The reason behind the speed is that the earlier the cutter gets relieved the sooner they can moor up safely to the finger pier in San Juan without the elements working against them. (Exhibits 2, 4)

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

- e. According to the Operations Officer, it is recommended practice, but not required, for OODs to move between the center helm station and the radar station to obtain a better sight picture out the windows and conduct a good scan of the visible horizon. (Exhibit 2)
- f. The WG had recently completed the assignment transfer season where roughly half of the crew were new to the ship. However, several members that transferred in had prior SSJ FRC or station experience. (Exhibit 2)
- g. Crewmember 1, who was being trained by the OOD, had previous experience on Coast Guard cutters, including the CGC FORWARD (WMEC-911). Crewmember 1 did not feel that the watchstanding was unsafe while on the bridge and that there were no distractions nor any display of incompetency by the crew on the bridge. Crewmember 1 stated that although there were a few blind spots on the bridge, they could be mitigated by moving around the bridge. After colliding with the C/C, the crew was in disbelief that the WG had hit anything in the water until the crew stepped outside and saw the C/C. (Exhibit 1)
- h. A similarly situated Coast Guard Commanding Officer (CGC CO) of an FRC that operated out of SSJ stated that there is minimal to no traffic in the area during the transit to Mona Passage, especially outside of three nautical miles from shore. CGC CO stated that it is hard to see a vessel of the C/C's size on the radar or even visually within one nautical mile. The transit speed leaving the harbor to the Mona Passage is normally 24-26 knots down swell, and that going slower would increase the fatigue of the crew during transit. Typically there is organizational pressure to get out to the Mona Passage to relieve another cutter patrolling that area. (Exhibit 4)
- i. When provided the crew composition, environment factors, vessel layout, and other factors that match the time of the collision, the CGC CO stated that the bridge team acted as any normal crew would act while transiting the area in question including the actions of the watchstanding team and the ordered speed. (Exhibit 4)
- j. Typically there are one OOD, one QMOW, and a break-in for the bridge watch team. CGC CO acknowledged that there are blind spots on the FRC bridge, especially aft of the bridge and that when going at high speed the bow is raised, which creates some visual obstruction to whomever is driving. (Exhibit 4)
- j. Additional Areas of Concerns:
 - a. MII Board constructed a Maneuvering Board Solution based on data in section 5.c.xxv- xxviii, 5.c.xxvi. The solution resulted in a Relative Motion of 350°R at 31 knots.

b. MII Board Re-creation of events in Bridge Simulator:

- i. On 31 Aug 2022, the MII Board re-created a simulation of the collision between the WG and C/C using the Virtual Bridge Simulator at Coast Guard Training Center Yorktown.
- ii. The design characteristics of the Fast Response Cutter and a Hi-fidelity model of a center console vessel were included in the software package and used as the models for the simulator. Unfortunately, the simulated center console model is 37 feet in-length with a 9-foot beam, making it 14 feet longer than the C/C involved in the mishap. As a result, the simulated center console is easier to visually acquire in the video.
- iii. Environmental data from section 5.f. of this report was used as inputs for the simulation.
- iv. Course and speeds for WG and C/C were determined from sections 5.c.xxi, 5.c.xxviii, and 5.c.xxvi. The WG was on a course and speed as determined from the SeaWatch Playback that recorded an orders course of 275°T at 29 knots. The C/C course was determined by reverse engineering a maneuvering board and cross-referencing the C/C crewmember's statement that the C/C was heading on a northerly course (estimated 010°T) at 5 knots. Based on the maneuvering board solution, the C/C would have been on a Constant Bearing Decreasing Range to be at 350°R from the WG.
- v. Both vessels were set apart at 6000 yards to view when the C/C could be visually acquired from the perspective of the center position onboard the WG. Additionally, we altered the color of the model to be as close to the teal color from the photos of C/C. The C/C only became visible at approximately 1200 yards. (Exhibit 40)
- vi. At 1200 yards distance, the C/C would appear and disappear with the swell. At approximately 600 yards, the C/C remains mostly visible, but still dips below the swell until approximately 300 yards. This is consistent with the CCTV camera footage of the incident.³ (Exhibit 40)
- vii. The scenario was played-back from the vantage point of the C/C. At approximately 1500 yards away, the superstructure of the WG is barely visible. At 1000 yards, the WG is more recognizable as another vessel,

³ Notably, the screens in the simulator have only a one-inch gap between screens and do not emulate the 4.5 inch thickness of FRC window frames. Additionally, MII members' in the simulator possessed the bias of knowing what to look for and where it should be located relative to WG's heading.

but occasionally dips below the crest of a wave. At 800 yards, the WG is fully visible for the remainder of the scenario.⁴ (Exhibit 40)

6. **Human Factors Analysis:** The following paragraphs discuss the human factors that directly relate to the mishap using the Department of Defense Human Factors Analysis and Classification Systems include complacency, overconfidence, distraction, and channelized attention.
- a. AE105 Breakdown in visual scan is a performance-based error and is a factor when the individual fails to effectively execute visual scan patterns. Both the WG and C/C operators failed to execute visual scan patterns that could have prevented this mishap.
 - i. The C/C Operator was engaged in setting up fishing lines and talking with the C/C Crewmember and not executing visual scan patterns. (Facts: 5.c.xxvi)
 - b. AE206 Wrong Choice of Action During an Operation is a Judgment and Decision-Making Error when individuals proceed as intended, yet the plan proves inadequate or inappropriate for the situation. This factor applies when the individual, through faulty logic or erroneous expectations, selects the wrong course of action.
 - i. Amid training the break-in, the OOD remained stationary at the center conning station and used (1) the radar overlay of the ECDIS and (2) a perceived unobstructed view through all windows to adequately lookout for any contacts.⁵ (Facts: 5.b.vii.2., 5.c.x, 5.c.xvii, 5.i.e.)
 - c. PE101 Environmental Conditions Affecting Vision is a factor that affects the individual's ability to perform required duties.
 - i. The 6-8 foot sea state of with occasional 10 foot sea swells combined with the C/C's hull color, speed, and direction of travel in the trough of the seas shielded the WG's visual cue of the C/C. (Facts: 5.c.v, 5.c.xvii, 5.c.xxiv, 5.c.xxvi, 5.c.xxxi, 5.f.a, 5.f.b)
 - d. PE203 Visibility Restrictions (Not Weather Related) is a factor when windshield, windscreen, or canopy design or other obstruction prevent necessary visibility.
 - i. When conning from the center position on the FRC, the window frame of 4.5 inches creates a blind spot of approximately 10 degrees from 345°R to 355°R

⁴ The video was filmed looking in the direction of the starboard side at roughly 030°R to 090°R from the C/C for the entire length of the video. This would not be normal operations of any mariner, but was filmed this way for determining the approximate range and duration at which time one vessel should have seen the other.

⁵ Notably, the OOD was unavailable for an interview, so it cannot be concluded the OOD relied exclusively on the radar overlay of the ECDIS.

to the bow. In this mishap, the Relative Motion position of the Center Console remained at 350°R to the bow of the FRC, creating a condition where the OOD, when remaining at the center conning station, would not see the C/C even in benign conditions. (Facts: 5.c.xvii, 5.e.a; Figures 2, 3)

- e. PC207 Complacency is a factor when the individual has a false sense of security, is unaware of or ignores hazards, and is inattentive to risks.
 - i. By remaining in the center console position, the OOD may have created had a false sense of security which was exacerbated by use or reliance on the ECDIS and radar overlay to provide ample information in making contact avoidance detection and action decisions.⁶ (Facts 5.c.x., 5.c.xvii., 5.c.xix., 5.i.e)
 - ii. C/C Operator had a false sense of security in assuming the weather conditions were suitable for the size of the C/C vessel, even considering the NOAA weather warnings. (Facts: 5.c.v, 5.f.a, 5.f.b.)
- f. PC106 Distraction is a factor when the individual has an interruption of attention and/or inappropriate redirection of attention by an environmental cue or mental process.
 - i. The C/C Operator was distracted by conversation with the C/C Crewmember and working some fishing lines, which prevented the vessel from maintaining a proper lookout. (Facts: 5.b.iv., 5.c.xxvi)
- g. PC110 Inaccurate Expectation is a factor when the individual expects to perceive a certain reality and those expectations are strong enough to create a false perception of the expectation.
 - i. The C/C may have perceived a reality that the WG would alter course based on previous experience the week prior. (Facts: 5.b.iii., 5.b.iv., 5.b.vi.1-7, 5.c.xxvi-xxviii)

7. Statement of Opinion:

- a. Cause of the Mishap: It is my opinion this mishap occurred because neither the WG nor the C/C saw one another and, as a result, failed to take any action that could have avoided or reduced the severity of the collision.

⁶ Notably, the OOD was unavailable for an interview, so it cannot be concluded the OOD relied exclusively on the radar overlay of the ECDIS.

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MI) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

b. Substantially Contributing Factors:

- i. The C/C was the give way vessel in a crossing situation, responsible for taking early and substantial action to keep clear of the WG, and should have avoided crossing ahead of the WG. Had the master of the C/C seen the FRC at approximately 800 yards, there would have been ample time for a vessel of its size to alter course to avoid the collision as required by Navigation Rules (Facts: 5.b., 5.c.xxviii, 5.j.)
- ii. It is my opinion that C/C operator was distracted while tending to fishing lines and conversing with the other occupant, failed to maintain a proper look out, and failed to take early and substantial action to avoid collision in accordance with the Navigations Rules. (Facts: 5.b., 5.c.xxiv, 5.c.xxvi-xxviii)
 1. Without the testimony of the OOD, CO, or QMOW, I cannot factually conclude whether or not the WG maintained a proper lookout.
- iii. It is my opinion that the position of the OOD at the center helm position and the design of the WG's bridge windows caused a blind spot that hindered view of the C/C. (Fact: 5.e.a)
- iv. It is my opinion that based on video evidence and replications in the simulator that the sea conditions, path of travel, speed, and the color of the C/C reduced its visibility signature to both the human eye as well as the electronic signature required by the WG's installed radar system. The C/C's size and path of travel in the trough of the predominant seas created a situation where it would dip below the swell height, essentially masking its view from the WG until the last 200 yards. (Facts: 5.b.xxiv, 5.b.xxvi, 5.b.xxix)
- v. Based on the simulation video, had the OOD moved about the bridge or used an additional lookout, the C/C potentially would have been sighted at approximately 1200 yards or even as late as 600 yards. However, while the former may have provided enough time to take action to prevent a collision, the latter may not have provided enough time for the WG to take safe yet evasive maneuvers to avoid the C/C.
 1. At 600 yards, the crew of the WG would have had as little as 34 seconds to: (1) recognize the situation, (2) determine if the C/C was going to alter course, (3) sound the danger signal, (4) switch from autopilot to manual, and (5) put the rudder over. Moreover, at the speed WG was traveling, it traverses approximately 266 yards in approximately 15.44 seconds forward before reaching the apex of its turn in either direction. Thus, had the OOD seen the C/C at 1200 or more yards, there may have been enough time to turn to starboard to avoid the collision. However, at 600 yards or less, the collision may have been unavoidable due to the time required to sufficiently analyze

Subj: POST-INVESTIGATION MEMORANDUM – MAJOR INCIDENT
INVESTIGATION (MII) INTO THE CIRCUMSTANCES
SURROUNDING CGC WINSLOW GRESSIER COLLISION ON 8
AUGUST 2022 NEAR PUERTO RICO

5830
15 Nov 2022

the situation and make safe evasive maneuvers that do not endanger the crew on either vessel. (Facts: 5.b., 5.j.v-vii)

- c. Exclusions: I do not find that either vessel violated the tenants of the Navigation Rule 6 (Safe Speed). Both vessels were operating outside three nautical miles on a clear, sunny afternoon with no reported traffic, and both vessels were highly maneuverable even in the prevailing conditions based on their characteristics. While the sea state played a factor in restricting the visibility for small vessels when they dip below the swell height, I do not believe it necessitated either vessel to reduce speed for the prevailing conditions. It is my opinion the speed chosen by the WG was common practice when operating outside the harbor was done to mitigate crew fatigue as well as mitigating a greater risk of transferring crew and passengers at sea during low-light. Given the distance to get to the transfer location and faced with a later than planned departure, the speed the WG was travelling would have allowed for a daylight transfer of passengers and, subsequently, lowered the risk of that evolution. (Facts: 5.b.vi.2, 5.i.b, 5.i.d, 5.i.h-i)
8. **Attestation**: The Findings of Fact and the Statement of Opinion are those of the MII Board and do not constitute an official determination by the Coast Guard concerning the mishap.

(b) (6)

Timothy D. Hammond
Captain, U.S. Coast Guard
Major Incident Investigation Board President

#

Enclosure: (1) MII Convening Order
(2) MII Evidence Inventory with List of Exhibits
(3) MII Witness List
(4) MII Board Members List
(5) MII List of Acronyms