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Homeland Security

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Coast Guard



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JUL 23 2015

FINAL ACTION OF MAJOR INCIDENT INVESTIGATION REPORT INTO THE CIRCUMSTANCES SURROUNDING THE DEATH OF A PERSON IN THE BROWNSVILLE SHIP CHANNEL ON 24 APRIL 2015 AND THE POSSIBLE INVOLVEMENT IN THE DEATH BY A STATION SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

The standard investigation report, conducted under the provisions of ALCOAST 352/13 and CG LANTAREA memo 5830 of 05 May 2015, that investigated the circumstances surrounding the death of a female person in the Brownsville Ship Channel on 24 April 2015 and the possible involvement in the death by a Station SPI 33' SPC-LE small boat, complies with applicable regulatory and statutory guidance. Accordingly, this report is approved.

A handwritten signature in blue ink, appearing to read "W. D. Lee".

W. D. LEE
Vice Admiral, U.S. Coast Guard
Commander, Coast Guard Atlantic Area

U.S. Department of
Homeland Security

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14 Jul 2015

MEMORANDUM

From: [REDACTED] CAPT
Board President

To: CG LANTAREA (LANT-00)

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT REGARDING THE DEATH
OF A PERSON IN THE BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24
APRIL 2015 AND THE POSSIBLE INVOLVEMENT OF A STATION SOUTH
PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

Ref: (a) LANT-00 Memo 5830 of 5 May 2015
(b) Major Incident Investigation Manual, COMDTINST M5830.4 (CG-094 draft dtd
28 Aug 2014)
(c) Administrative Investigations Manual, COMDTINST M5830.1A

1. Executive Summary:

On the evening of 23 April 2015, four Coast Guard members from Coast Guard Station (STA) SPI were conducting a routine LE patrol on the Brownsville Ship Channel (BSC), on board a 33 ft Special Purpose Craft-Law Enforcement (SPC-LE), official number CG-33124. At approximately 11:09 p.m., while transiting in the vicinity of the BSC Shrimp Basin, the crew heard a "thud/thump" sound on the hull of the SPC-LE that indicated they had possibly struck something in the water. The break-in-coxswain (BIC) brought the SPC-LE to all stop, and turned back to search for an object the vessel may have hit. The crew located a small pink inner tube, resembling a recreational type, swimming pool float. After searching the area and finding no other objects, debris, or people, the crew continued on the patrol and returned to STA SPI without further incident at approximately 12:40 a.m. on 24 April 2015.

Unbeknownst to the crew of the SPC-LE, an Undocumented Alien and a Human Smuggler had been swimming across the BSC in the same location the crew heard the "thud/thump" sound in an attempt to illegally enter the United States. The Undocumented Alien's body was found the next morning on the north shoreline of the BSC by local authorities. Subsequent forensic analysis determined a positive match between the propellers of the SPC-LE and the fatal injuries sustained by the Undocumented Alien.

The MII Board President found clear and convincing evidence that the cause of the mishap was the action of the Human Smuggler and Undocumented Alien covertly swimming, in the dark of night, across the BSC (a commercial ship channel) resulting in the Undocumented Alien's death as she was struck by the propellers of the SPC-LE on patrol.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

2. Preliminary Statement:

a. Authority. The investigation was conducted at the direction of the convening authority, VADM W.D. Lee, Commander, U.S. Coast Guard Atlantic Area, reference (a). The authority and guidance for conducting this investigation are contained in references (a) and (b).

b. Purpose. This is an investigation convened to inquire into the facts surrounding the death of a person in the BSC on or about 24 April 2015 and the possible involvement of a Station South Padre Island 33 ft. SPC – LE, to prepare a publicly-releasable report, and to gather and preserve all available evidence for use in litigation, claims, disciplinary actions, administrative proceedings, and for other purposes.

c. Board Composition. The Board was designated on 05 May 2015.

1. President: CAPT [REDACTED]
2. Legal Advisor: LCDR [REDACTED]
3. Subject Matter Expert: BMC [REDACTED]
4. Recorder/Admin: LT [REDACTED]

d. Conduct of the MII Board: The Board convened its investigation at South Padre Island, TX from 06-15 May 2015, and re-convened at the Investigations National Center of Expertise, New Orleans, LA from 01-05 June 2015.

e. Interaction with Other Investigations. The Board interacted with several other investigative teams and law enforcement agencies during the course of the MII in order to collect evidence and information related to the incident. Specifically, the Board interacted with the USCG Mishap Analysis Board (MAB), Coast Guard Investigative Service (CGIS) Brownsville, TX, Department of Homeland Security (DHS) Homeland Security Investigations (HSI) Harlingen, TX, and the Port of Brownsville Police Department.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

3. Table of Contents:

<u>Section</u>	<u>Page #</u>
Executive Summary	1
Preliminary Statement	2
Authority	2
Purpose	2
Board Composition	2
Conduct of MII Board	2
Interaction with Other Investigations	2
Finding of Fact	4
Background	4
Mission	4
Planning	6
Patrol Details and Accident	7
Maintenance	11
Vessel Systems	11
Weather	11
Crew Qualifications	11
Medical	12
Operations and Supervision	12
Human Factors related to Undocumented Alien	13
SPC-LE Trackline and Speed Analysis	13
Additional Areas of Concern	14
Statement of Opinion	15
Signature	16

4. Findings of Fact

a. Background.

Coast Guard Station South Padre Island (STA SPI) is located on South Padre Island, Texas, approximately six miles north of the U.S./Mexico border. The assigned personnel consist of approximately 60 active duty and 12 reserve personnel. The unit is commanded by a Lieutenant. The unit's primary missions are search and rescue and maritime law enforcement. STA SPI's boats include one 45 ft. Response Boat - Medium (RB-M) and three 33 ft. Special SPC-LEs. Typical law enforcement operations include interdiction of illegal Mexican vessels fishing within U.S. waters in the Gulf of Mexico, and deterrence and interdiction of illegal immigrants and drug smugglers throughout the Area of Responsibility (AOR). The AOR runs approximately 30 miles north along the Texas coast and includes parts of the Gulf of Mexico, the Intracoastal Waterway, the BSC, and the Arroyo Colorado River. The STA SPI property is also home to two other commands - the Aids to Navigation Team (ANT) South Padre Island, and the 87 ft. cutter USCGC AMBERJACK (WPB-87315). STA SPI is a subordinate unit to Sector Corpus Christi.

Sector Corpus Christi is commanded by a Captain and is located in Corpus Christi, TX. Except for ice-breaking, Sector Corpus Christi performs all Coast Guard missions including search and rescue, drug and immigrant interdiction, aids to navigation, Port and Waterways Coastal Security, Waterways Management. Sector provides support for 47 Coast Guard cutters and boats. Coast Guard District Eight is the parent command of Sector Corpus Christi and is commanded by a Rear Admiral. District Eight is located in New Orleans, LA. District Eight is subordinate to Coast Guard Atlantic Area, which is located in Portsmouth, VA. As previously stated, Vice Admiral Lee, Commander of Atlantic Area, convened the MII.

b. Mission:

STA SPI scheduled an SPC-LE and boat crew for a routine, three-hour, Law Enforcement (LE) patrol in the BSC for the evening of 23 April 2015, the (Exhibits 1, 2). The purpose of Coast Guard law enforcement patrols in the BSC is to deter and interdict immigrants and narcotic smugglers, ensure safety and security of the maritime facilities within the Port of Brownsville, and to conduct commercial and recreational vessel boardings to enforce various safety and security laws and regulations. It is well-known through intelligence reporting and operational mission history that the BSC is crossed by illegal immigrants and smugglers. The BSC is in close proximity to the U.S. border with Mexico (the Rio Grande River). (Exhibits 3, 4, 5).

The patrol route in the BSC consisted of a 34.2 Statute Mile (St. M) transit. The route sequence was as follows: depart STA SPI in a southerly direction until reaching the Laguna Madre Channel (approximately 0.5 St. M), thence southwesterly on the Laguna Madre Channel (approximately 1.5 St. M) to the BSC, thence southwesterly on the BSC (for approximately 14.1 St. M) to the Port of Brownsville Turning Basin, and thence northeasterly back to STA SPI. Key geographical points of interest along the patrol include the Jaime Zapata Boat Ramp, the Shrimp Basin, the commercial facilities and vessels within the Port of Brownsville and the Turning Basin. See Figure 1 for a visual BSC overview. As is standard protocol for patrols, the boat crew navigated the patrol utilizing standard waypoints that are entered into the boat's Scalable Integrated Navigation System (SINS). (Exhibits 3, 4, 5). There are no prescribed minimum or maximum speed limits for law enforcement patrols on

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

the BSC (Exhibits 3, 4, 6). The patrol was scheduled for a duration of three hours (Exhibit 7).



Figure 1 - Google Earth snapshot of Brownsville Ship Channel

The SPC-LE departed STA SPI at 9:53 p.m. (Exhibit 8). The following four crewmembers were aboard (Exhibits 1, 2, 6, 9, 10, 11, 12, 13):

Boatswain Mate 3rd Class – SPC-LE Certified Coxswain¹ (referred to as the CC in report)

Boatswain Mate 3rd Class – Navigator², Boarding Team Member (BTM), SPC-LE Pursuit Crewmember, and Break-In Coxswain³ (referred to as the BIC in report)

Machinery Technician 2nd Class – Boarding Officer (referred to as the BO in report), SPC-LE Pursuit Crewmember

Seaman – SPC-LE Crewmember (referred to as the Crewmember in report)

¹ A certified coxswain is a coxswain that has completed a vessel specific qualification process and has been certified by the Commanding Officer/Officer In Charge to operate a particular vessel type within the unit's Area of Responsibility.

² The Navigator Position was created by the Commanding Officer of STA SPI subsequent to the 27 June 2014 grounding incident involving a Station RB-M. The Commanding Officer's intent was for this individual to assist the helmsman by monitoring and overseeing navigational instruments in the cabin, thus allowing the helmsman to concentrate on operating the vessel.

³ The SPC-LE qualification process and timeline are specified by the Commanding Officer/Officer In Charge based on an individual's assigned position/role. The process requires the break-in coxswain to operate the vessel for a certain number of hours in a variety of operational mission sets and activities. Break-in qualification task requirements are contained in the U.S. Coast Guard Boat Operations and Training Manual Volume II, COMDTINST M16114.33 (series), Enclosure (6), and local Unit Navigation Standards. After demonstrating proficiency and obtaining endorsements from certified coxswains, the break-in must successfully demonstrate Area of Responsibility knowledge, complete an oral board of inquiry, and complete an operational check ride. The CO/OIC makes the final decision on coxswain certification.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

The Port of Brownsville commercial complex is located in the BSC between the Shrimp Basin (St. M 677.2) and the Port of Brownsville Turning Basin (St. M 681.6). Within this area, there are numerous commercial maritime facilities along both shore sides. These facilities have significant lighting that illuminates the general vicinity within the BSC. The remainder of the BSC, northeast from the Shrimp Basin, is mostly undeveloped with minimal shore side lighting (Exhibits 5, 6, 10, 11, 14, 27).

Migrant and drug smuggling activities have occurred along the length of the BSC, most commonly under the cover of darkness, at night and in the early morning. The general vicinity of the Shrimp Basin is one known area where this illegal activity occurs. Undocumented aliens and smugglers utilize a lighted cell phone tower near the Shrimp Basin as a beacon to guide them from the U.S./ Mexico border. Undocumented immigrants and smugglers typically use flotation devices, including inner tubes, to assist them to cross the BSC. The flotation devices are typically abandoned in the brush on the north side of the BSC after the crossings, see Figures 2 and 3. (Exhibits 5, 14, 15, 16, 17, 18, 27).



Figure 2 and 3 - Deflated Flotation Devices & other undocumented alien debris located on North Shoreline of BSC in the vicinity of the Shrimp Basin

c. Planning:

The STA SPI Officer of the Day (OOD) is responsible for boat crew assignments in accordance with STA SPI Standing Orders. On 23 April 2015, the OOD assigned the SPC-LE boat crew (Exhibits 2, 3, 4, 7). Prior to the mission, the OOD replaced one boat crewmember at the request of the BIC, who was seeking underway time (Exhibits 2, 6, 10).

Prior to getting underway, the four crewmembers, in the presence of the OOD, conducted a risk assessment using the Coast Guard standard "Green Amber Red" (GAR) Model.⁴ The resulting score of 20 indicated an expected low risk operation (Exhibits 1, 2, 6, 9, 19).

Following completion of the GAR assessment, and just prior to getting underway, the BIC requested permission from the CC to operate the vessel for the patrol (Exhibits 6, 10). The BIC was in training and requested to operate the vessel to improve his proficiency in

⁴ The Coast Guard Operational Risk Manual, COMDTINST 3500.3 (series), enclosure (5), describes the GAR model for risk assessment, whereas crewmembers grade aspects of operations based on specified categories (supervision, planning, team selection, fitness, environment, event complexity). Each category is scored between 1 and 10, with 10 being the most hazardous. The scores are totaled and risk assessed (risk is low in the green zone (between 1-23), moderate in the amber zone (24-44 points), and high in the red zone (above 45 points). Measures should be initiated to reduce the risk prior to starting an event or evolution.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

pursuit of his SPC-LE coxswain qualification, and completion of boat crewmember currency requirements (Exhibits 10, 20). It is common in the Coast Guard for a break-in coxswain to operate boats under the supervision of a certified coxswain (Exhibits 4, 21). The crew did not conduct another risk assessment to factor in this change of positions (Exhibits 6, 10, 11, 12).

The seating arrangement of the crew within the SPC-LE as they departed STA SPI was as follows: The BIC was operating the vessel, sitting in the first seat on the starboard side (commonly referred to as the coxswain seat); the CC was seated in the first seat on port side (locally referred to as the "navigator" seat); the BO was seated in the second seat starboard side (behind the BIC); and the Crewmember was seated in the second seat port side (behind the CC) (Exhibits 6, 10, 11, 12, 22).

d. Patrol Details and Accident:

When the boat departed from STA SPI at 9:53 p.m., the Station's boat house camera system showed the deck lights and navigation lights of the SPC-LE repeatedly energized and de-energized as they departed the boat house (Exhibits 8, 10).

At some point after entering the channel and at the beginning of the patrol, the CC allowed the Crewmen to sit in the forward, port side "navigator" seat and operate the Maritime Forward Looking Infrared (MarFLIR) system. From that point in time, the CC stood upright between the navigator and the BIC for the duration of the patrol (Exhibits 6, 12). See Figure 4.

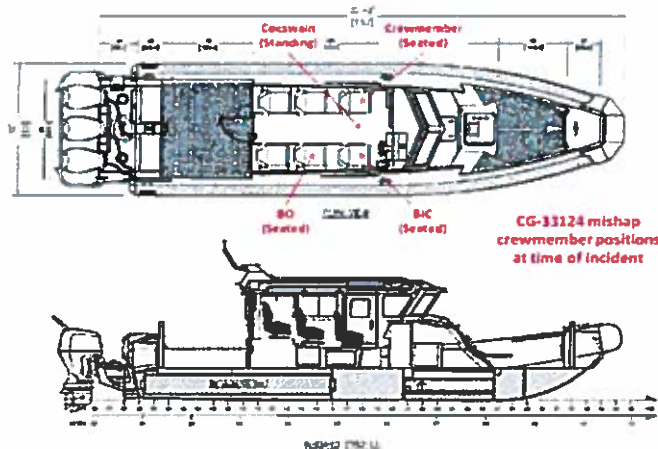


Figure 4 - Seating Arrangement for SPC-LE

The patrol proceeded without incident to a location within the BSC in the vicinity of the Jaime Zapata Boat Ramp. As the SPC-LE approached this area, at approximately 10:30 p.m., the CC visually acquired an approaching Uninspected Towing Vessel (UTV), UTV CAROL M (see Figure 5), that was outbound in the BSC pushing four empty barges, (Exhibit 6). The CC radioed to the UTV CAROL M on VHF to arrange for a port-to-port passing agreement (Exhibits 6, 23). The towing vessel operator responded in agreement, and also informed the CC that he could not see the boat's navigational lights (Exhibits 6, 23). At this time, the CC realized that the BIC had mistakenly energized the aft starboard flood light, and not the navigation lights (Exhibits 6, 10). The switch for the aft starboard flood light is located to the immediate left of the switch for the navigational lights on the boat's overhead instrument panel (OHIP). The OHIP is located directly above the coxswain seat (Exhibits 22, 24). The CC turned off the aft starboard flood light and energized the navigation lights (Exhibits 6, 10). The operator of the UTV CAROL M confirmed that he saw the navigation lights of the SPC-LE energized. He also confirmed that he visually saw the navigation lights for at least a mile after the passing occurred, at which time he concentrated his attention only forward of his tow (Exhibit 23).

Since the UTV CAROL M was pushing ahead four empty open hopper barges arranged in a two by two configuration, the SPC-LE gave a wide berth by moving to the north side of the navigable channel and slowed speed from nine knots to approximately four knots, (Exhibits 6, 10, 23, 25). The SPC-LE and UTV CAROL M passed each other at approximately 10:36 p.m. (Exhibits 25, 26, 28).



Figure 5 - Towing Vessel CAROL M

After passing the UTV CAROL M, the boat crew conducted a Man-Over-Board (MOB) drill at the entrance to the Jaime Zapata Boat Ramp at St. M. 674.3. The drill took approximately three minutes to complete (Exhibits 5, 25, 29, 30, 31).

Following completion of the MOB drill, the crew continued on their patrol heading southwest in the BSC. The BIC was operating the boat at approximately 5.3 knots (Exhibits 25, 30, 32). As the boat approached the Shrimp Basin at approximate position St. M 677.2 BSC, the BIC (with the approval of the CC) decided to increase speed to bring the vessel "up on plane."⁵ Planing speed for a Coast Guard SPC-LE is approximately 19.2 knots (Exhibit 33). The specific area that the BIC decided to come up on plane was approximately one mile east of the entrance to the Shrimp Basin (Exhibits 5, 25, 27, 35). The BIC felt more comfortable with increasing the SPC-LE's speed due to the increased shore side illumination coming from the maritime facilities within the Port of Brownsville (Exhibits 6, 10).

The BIC informed the crew that he was "coming up," implying that he was coming up on plane (Exhibits 6, 10, 11, 12). Over a period of approximately 30 seconds, the SPC-LE came up on plane (Exhibits 25, 32, 35). The SPC-LE then transited for approximately 30 seconds at an average speed of approximately 30.86 knots until all members of the crew heard a "thud" or "thump" sound under the hull (Exhibits 6, 10, 11, 12, 25, 32, 35). The CC described the sound as being similar to the sound of the boat's hull hitting a small wake; however there was no other vessel traffic visible and no wake in the area (Exhibits 6, 10). The time was approximately 11:09 p.m. (Exhibits 30, 34, 35). The BIC brought the throttles to neutral to stop the SPC-LE, and turned to port to double-back on the vessel's trackline (Exhibits 6, 10, 25, 30). The SPC-LE's navigation lights were illuminated prior to and after the mishap, as captured by a Port of Brownsville video surveillance camera mounted within the Shrimp Basin; the video is Exhibit 34, and video still-shots are shown in Exhibit 36.

The crew searched in the vicinity of St. M 677 BSC to identify the source that caused the sound on the hull of the SPC-LE (Exhibits 6, 10, 11, 12, 25, 30, 35). The BO and the Crewman quickly went to the bow and stern of the SPC-LE to look in the water. The CC energized the vessel's spotlight, and began sweeping the area around the SPC-LE. The Crewmember on the bow called out that he spotted a glimmer in the water and guided the BIC to navigate the SPC-LE toward the object, which the crew retrieved. The object was a

⁵ The terms "on plane" and "coming up on plane" are common maritime terms that describe the action of increasing the engine power of a boat to transition from displacement mode within the water to a position near or on top of the water (planing mode) to achieve better maneuverability and performance.

fully inflated pink plastic recreational-type inner tube. See Figure 6. After further searching concluded with negative results, the BIC and CC decided to continue on with the patrol with the implied assumption that the inner tube was the source of the sound on the hull. Throughout the search evolution, the crew did not perform Coast Guard prescribed standard procedures following a collision with a submerged object, commonly referred to as a Basic Engineering Casualty Control Exercise (BECCE) (Exhibit 37). The crew also did not contact (via radio) STA SPI to inform them that the SPC-LE had apparently struck an object. (Exhibits 2, 6, 10, 11, 12).



Figure 6 – Inner tube found in BSC

Crew Look Out prior to the Thump Sound. The Crewmember stated that his typical protocol for LE patrols was to use the MarFLIR to scan the southern shoreline because undocumented aliens and smugglers stage themselves and/or hide on that side of the BSC. He stated that he kept the MarFLIR pointed toward the southern shoreline on the night of the incident. In addition, he stated that he left the MarFLIR station immediately upon hearing the thump sound, and went out on the forward deck during the search. He did not scan the area of the thump when he returned to his MarFLIR seat because the SPC-LE was back underway in the opposite direction (Exhibit 12). The BO was seated behind the BIC, and had a limited view out of the starboard side of the SPC-LE prior to the thump sound (Exhibit 11). The BIC and CC were the only two boat crew that had a view forward prior to the incident. They both stated that they looked forward before increasing speed, and did not see anything in the water prior to coming up (Exhibits 6, 10).

During the remainder of the patrol, the crew encountered only one other vessel, a small recreational fishing vessel. They completed the patrol and returned to STA SPI at approximately 12:40 a.m. on 24 April 2015 (Exhibit 8). Upon returning, the BIC and BO informed the OOD that they hit an object in the channel, which they reported to be a pink inner tube. The OOD subsequently received the same report from the CC. The BIC, BO, and CC all reported to the OOD that the engines were fine on the SPC-LE. The OOD accepted the reports, and did not make any further notifications. (Exhibits 2, 6, 10, 11, 12).

That morning, at approximately 6:10 am, the Shrimp Basin complex security guard was approached by a man who reported that he saw a deceased human body along the shore on the north side of the BSC. The guard searched but did not locate the body. Later that morning, an anonymous call was received by the Port of Brownsville Police Department, informing them of the exact location of a body on the shore of the BSC. As the Port Police were retrieving the body of a deceased woman on the BSC shoreline, a man approached the officers and stated that he was the anonymous caller. The man stated that he was the person who attempted to smuggle the deceased female into the United States. At this point, the Cameron County Sheriff's Department assumed the case from the Port Police. Cameron County Deputies questioned the man (referred to as the "Human Smuggler" for the duration of this report) and then released him. (Exhibits 17, 18, 42).

Concurrently, on the morning of 24 April 2015, STA SPI and CGIS were notified of the discovery of a deceased person in the BSC (Exhibits 2, 4, 15, 17, 18). The location where the body was found closely corresponded to the vicinity in which the crew of the SPC-LE heard the "thump/thud" sound and retrieved the inner tube the night before. A discussion and

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

coordination between STA SPI and CGIS led to the SPC-LE being removed from its mooring, secured landside, and removal of the three outboard engine propellers (of which CGIS took possession) (Exhibit 17).

On 27 April 2015, the Cameron County Coroner conducted an autopsy on the Undocumented Alien in the presence of CGIS Special Agents. The CGIS Special Agents brought to the autopsy one of the SPC-LE's propellers, and specific measurements taken between the three outboard engines propellers. The injuries on the Undocumented Alien were consistent with the shape of the SPC-LE's propeller blades, and also the distances between the outboard engine propellers. The CGIS agents and the Coroner concluded a direct match, confirming the involvement of the SPC-LE in the incident. The Coroner concluded that the Undocumented Alien died nearly instantly because of the initial blunt force trauma and blood loss. The Coroner determined the official cause of death as Boat Propeller trauma with drowning (Exhibits 17, 39, 40).

On 28 April 2015, CGIS Special Agents searched for and found the Human Smuggler within the commercial Shrimp Basin. The Human Smuggler explained that he had worked various jobs at the Shrimp Basin over the last few years and was very familiar with the local area. Because of his local knowledge and experience, he was recruited as the Human Smuggler to guide the Undocumented Alien into the United States⁶ (Exhibits 17, 18).

The following three paragraphs are from the Human Smuggler perspective: The Human Smuggler and the Undocumented Alien were attempting to swim across the BSC. Earlier in the day, they illegally entered the United States by crossing the Rio Grande River. The two then hiked approximately 2.9 miles to the BSC using a nearby cell phone tower as a directional aid. Upon arriving at the south shore of the BSC (across the channel from the Shrimp Basin), the Human Smuggler and Undocumented Alien watched as the UTV CAROL M passed on its outbound voyage. They then removed their outer clothes, which they placed in plastic bags along with other personal belongings, and inflated two inner tubes. They began to swim across the BSC using the inner tubes as flotation devices (the Undocumented Alien used a pink inner tube, and the Human Smuggler a blue inner tube). As they were in the middle of the channel, they heard the sound of the approaching SPC-LE (Exhibits 17, 18).

The Human Smuggler and the Undocumented Alien attempted to evade the oncoming SPC-LE. During interviews with DHS HSI agents, the Human Smuggler claimed that he was hit by the SPC-LE also, causing minor injuries (i.e. scratches and bruises to his forearms), Exhibit 41. After he was allegedly hit, the Human Smuggler swam to shore, hid from sight, and observed the SPC-LE search the area where the accident occurred. He made no attempt to alert the Coast Guard crew either before or after the SPC-LE struck the Undocumented Alien (Exhibits 17, 18, 34, 35). After the boat departed the area, the Human Smuggler returned to the water where he was able to locate the deceased Undocumented Alien. The Human Smuggler pulled the Undocumented Alien to shore on the north side of the channel, left her there, and then departed the area to his living quarters within the Shrimp Basin complex (Exhibits 17, 18).

The Human Smuggler stated that he was the person who notified the Shrimp Basin complex security guard the next morning (confirmed by Port of Brownsville Police video

⁶ DHS records indicated that he previously entered the United States illegally on four occasions and was apprehended. The Human Smuggler is currently in federal custody in the United States facing prosecution related to this event (Exhibits 17, 18).

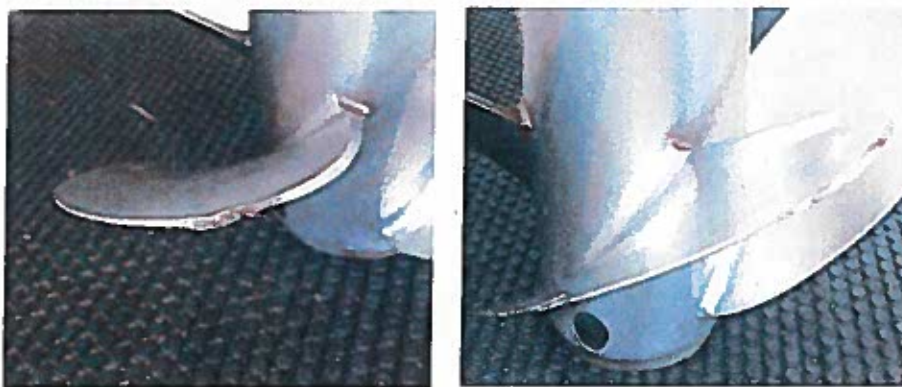
Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

evidence) (Exhibit 17, 42). He informed the guard about the presence of a deceased female along the shore near the Shrimp Basin, but did not accompany the guard in his search. Later during the morning of 24 April, the Human Smuggler noticed the Undocumented Alien's body was still on the shoreline, so he anonymously called 911. He then presented himself to authorities on the scene of the body recovery (Exhibits 17, 18).

e. Maintenance: There was no maintenance issue related to the SPC-LE that contributed to this incident. For the SPC-LE maintenance history, see Exhibits 43, 44, 45, 46.

f. Vessel Systems: Following the incident, an inspection of the three propellers from the SPC-LE revealed damage to the blades of the center propeller, see Figures 7 and 8.



Figures 7 and 8 - Visible Damage on the Center Outboard Engine Propeller

g. Weather: The environmental conditions at the time of the incident: (Exhibits 47, 48, 49)

Cloud Cover: Overcast, low clouds
Temperature: 78.1 degrees Fahrenheit
Humidity: 93%
Pressure: 29.95 in
Visibility: 6 miles
Winds: 8.1 mph ESE
Moon Illumination: 0.28

h. Crew Qualifications:

Per STA SPI Standing Orders and Commandant Policy, the minimum crew requirement for an SPC-LE for a maritime law enforcement patrol in the BSC is a four person crew consisting of at least one certified coxswain and two crewmembers. Additionally, there must be a boarding team aboard, comprised of a BO and BTM. The BO and/or BTM may also fulfill the role of the SPC-LE crewmembers (Exhibit 3, Enclosure (7) U.S. Coast Guard Boat Operations and Training (BOAT) Manual Volume I, COMDINST M16114.32C (Page 2-33)).

At the time of the patrol, the crew of the SPC-LE was certified to fulfill the roles required under Commandant and STA SPI policy. Certifications were as follows:

CC: Certified as SPC-LE coxswain 6 March 2015.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

BIC: Certified as Boarding Team Member on 7 November 2014; Practical Pistol Course last completed on 31 October 2014; Judgmental Use of Force Evaluation last completed on 2 October 2014 (certification valid through end of April 2015) (Exhibit 50); Weapons PQS last completed on 27 April 2015; certified as SPC-LE boat crewmember on 27 August 2014.

BO: Certified as Boarding Officer on 22 September 2014; Practical Pistol Course last completed on 19 November 2014; Judgmental Use of Force Evaluation last completed on 9 April 2015; Weapons PQS last completed on 9 April 2015; certified as SPC-LE boat crewmember on 20 October 2014.

Crewmember: Certified as SPC-LE boat crewmember 30 March 2015

A complete accounting of all SPC-LE crewmember qualifications and certifications is contained in Exhibits 13, 20, 51, 52, 53 and 54.

i. Medical:

A 72-hr work/rest analysis was completed on the SPC-LE crew (Exhibit 55). There was no fatigue issue identified that would have diminished the effectiveness of the crew during the 23 April 2015 patrol. The crew began their duty at 0800 on Wednesday, 22 April 2015 as part of a duty period that would last two days (two-on/two-off sliding weekend duty). The crew, with the exception of the CC, had been awake for approximately 17 hours at the time that the mishap occurred. The CC had been awake for approximately five hours at the time that the mishap occurred because he took a one hour nap between approximately 1700 and 1800 on 23 April 2015. CC rested at that time because on the prior night he went to sleep at midnight, later than usual for a duty day, due to a personal matter that required him to visit home briefly. The BIC and the Crewmember stood short durations of day duty on 23 April 2015, but no extraneous work was involved.

There were no pre-existing medical issues affecting any of the crewmembers. On 24 April 2015, the SPC-LE boat crewmembers all were tested for drugs and alcohol, the results of which were negative (Exhibit 56).

Undocumented Alien Fatigue. The Undocumented Alien traveled by bus from Ursulo Galvan, Veracruz, Mexico to Matamoros, Mexico, between 21 and 23 April 2015. The distance traveled was approximately 600 miles. After arriving in Matamoros, the Undocumented Alien was met by the Human Smuggler around 4:30 p.m. on 23 April 2015. Together, they purchased inner tubes from a grocery store in Matamoros and were transported by vehicle to a residence in Matamoros where the Human Smuggler negotiated for transportation across the Rio Grande River. The Human Smuggler and Undocumented Alien were then transported to a ranch on the border, where they were transported across the Rio Grande River in a wooden boat. They then hiked approximately three miles in rugged terrain to the south shore of the BSC. (Exhibits 17, 18). It is unknown what time the Undocumented Alien and Human Smuggler arrived at the BSC, however the accident occurred at approximately 11:09 p.m.

j. Operations and Supervision: With the exception of the BO and BTM roles, the SPC-LE crew had minimal experience in the roles they were fulfilling on the 23 April 2015 LE patrol.

The CC had been certified on the SPC-LE for just over one month, having achieved 35.8 hours as a certified SPC-LE Coxswain, encompassing 10.2 hours specific to night missions. The BIC was a certified SPC-LE Pursuit Boat Crew Member, but not a certified Coxswain, and had 185.6 certified hours with 40.2 hours at night. The BO had 144.6 hours on the SPC-LE (64.4 night), and the Crewmember had 12.3 certified hours on the SPC-LE (3.4 night). The CC and BIC both completed Navigation Rules training and testing within the last 2 years. In regards to familiarity with the BSC, the CC had earned credit for nine "AOR-1"⁷ night patrols since 01 January 2015, to include both boat crew member and coxswain experience. The BIC had completed seven AOR-1 night patrols. The BO had completed eight AOR-1 night patrols, and the Crewmember had completed four. (Exhibit 53).

k. Human Factors Analysis - Undocumented Alien and Human Smuggler Lack of Situational Awareness. The Undocumented Alien and Human Smuggler were not aware that the SPC-LE was transiting in the BSC prior to their swim across the channel. They were able to see the UTV CAROL M and barges as the tug passed their shore side staging location at approximately 10:15 p.m. (Exhibit 18). The UTV CAROL M and the SPC-LE passed each other at approximately 10:36 p.m. at a distance of approximately three miles east of where the Undocumented Alien and Human Smuggler were located (Exhibit 27). Therefore, they had an opportunity to recognize the presence of the SPC-LE for a distance of approximately three miles, and a time period of approximately 33 minutes, before the incident. The fact that they chose to swim across the channel while the SPC-LE was approaching indicates a lack of situational awareness on their part.

l. SPC-LE Trackline and Speed Analysis.

1) MII Board analysis of SINS data from the SPC-LE revealed the following information. For the majority of the patrol (70%), the SPC-LE transited at 10 knots or less. For 23% of the patrol, it transited on plane (above 20 knots). For the remaining 7%, it transited between 10 and 20 knots which is the transition speed for an SPC-LE coming up on plane. The SPC-LE had just come up on plane and was traveling at approximately 30 knots for a period of 40 seconds at the time of the incident. For more detailed information on speeds transited by the SPC-LE during this patrol, see Exhibit 32.

2) As previously stated, there were no speed limits designated for a BSC law enforcement patrol at the time of the incident. Hence, the decision as to what speed to operate the SPC-LE is the responsibility of the person(s) operating the vessel, in this case the BIC and CC. The Inland Navigation Rules apply on all waters that are inward of the U.S. demarcation line, and Rule 6 of the Inland Rules requires all vessels to operate at a safe speed to avoid collision. This rule lists certain factors that the operator of a vessel should take into account when determining the safe speed at which to operate (Enclosure 9). Several of those conditions, including backlighting, reduced visibility due to overcast skies and darkness, and the known smuggler crossing point near the Shrimp Basin were present on the night of the incident.

3) The BIC, with the CC's approval, chose to increase speed and come up on plane shortly before the incident as he felt that the increased illumination in that area of the BSC permitted better visibility of any potential vessel traffic. The BIC visually checked ahead and

⁷ AOR 1 is a patrol zone term used by STA SPI to describe a large patrol area that is inclusive of the BSC. However, since the area described by AOR-1 includes other waterways, a crew performing an AOR-1 patrol may not have patrolled the BSC at all. Therefore, since AOR-1 encompasses a greater area than the BSC, credit for an AOR-1 patrol is not acknowledgment of experience specific to the BSC.

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

saw no other vessels. Although the BIC, CC and boat crew were aware that they were operating in a known smuggling area, they did not consider the possibility of persons-in-the-water ahead of the SPC-LE. Based on training and experience, the crew's attention was focused on the shoreline under the assumption that undocumented aliens and smugglers attempting to swim across the channel would be aware of the Coast Guard boat's presence, and would wait until the boat passed before entering the water (Exhibits 6, 10, 11, 12). Although it is well known that the Shrimp Basin area is a common crossing point for undocumented aliens, there is scarce information about swimming/crossing tactics since the overwhelming majority of human crossings occur unobserved by Coast Guard or law enforcement vessels. In fact, despite regular Coast Guard patrols of the BSC, no Coast Guard member from STA SPI interviewed by the Board had actually encountered undocumented aliens, or any other individuals, swimming across the BSC in that area during the night (Exhibits 5, 6, 10, 21).

m. Additional Areas of Concern:

1) Backlighting. The MII Board members simulated the mishap patrol by riding aboard an SPC-LE during similar conditions (weather, humidity, overcast, etc) to the night of the incident. There was an extremely noticeable difference in illumination from darkness to light as the boat approached the Shrimp Basin at the eastern-most boundary of the Port of Brownsville commercial area. From the MII Board members' perspective looking forward from the SPC-LE cockpit, the bright lights emanating from the multiple facilities in the forward distance along the shore of the Port of Brownsville caused a backlighting condition that created glare on the surface of the water in the BSC as the boat transited in the area of the mishap location (just before the Shrimp Basin). Although subject to the eye of the beholder, this backlighting glare on the water's surface can be detrimental to water surface visibility at certain angles rather than an advantage (as one may think). In other words, as you approach the Port complex, the bright illumination appears to enhance overall general visibility, but also appears to diminish visibility of the water's surface because of the bright reflection. As previously stated, the BIC felt more comfortable with forward visibility due to the increased illumination as the SPC-LE approached the Shrimp Basin, and therefore decided to increase speed. The BIC and CC opined that they did not consider the effects of backlighting as they approached the Port complex (Exhibits 6, 10).

2) SPC-LE Overhead Instrument Panel (OHIP). The Board discovered inconsistencies with the OHIP when comparing STA SPI SPC-LEs with SPC-LEs at other Coast Guard units. Specifically, the navigation/anchor light switch on the OHIP has two imbedded LED bulbs. The switch is a dual position switch that can energize either the SPC-LE's navigation lights or the anchor light. The switch is designed to illuminate two of the imbedded bulbs when the navigation lights setting is selected, and one of the imbedded bulbs when the anchor light setting is selected. The switch's two bulb illumination feature is a design feature that allows the coxswain (and crew) to visually confirm that the navigation lights are energized.

As stated within the report, the SPC-LE navigation lights were not illuminated just prior to the tug passing. When the Board tested the switch on the SPC-LE, it only illuminated one bulb in the navigation lights position, and one bulb in the anchor light position (see Figures 9, 10, and 11). This may have contributed to the BIC's confusion regarding energizing the navigation lights.



Figure 9, 10, and 11: Left to Right – Navigation/Anchor light switch off (no bulbs energized); navigation light selected and one bulb energized; anchor light selected and one bulb energized

Regardless of the switch bulb illumination issue, the Board confirmed through eye witness testimony of the UTV CAROL M operator that the navigation lights were energized as the SPC-LE passed the tug (Exhibit 23). In addition, the Board confirmed, by video evidence from the Port of Brownsville camera mounted at the Shrimp Basin, that the SPC-LE navigation lights were energized at the time of the mishap (Exhibit 34).

The Board SPC-LE Subject Matter Expert communicated this switch inconsistency issue with Coast Guard Headquarters (CG-731). CG-731 immediately sent out an instant email alert to every Station Engineering Petty Officer (EPO) for Stations that have SPC-LEs.

5. Statement of Opinion.

a. Cause of the Mishap: I find by clear and convincing evidence that the cause of the mishap was the action of the Undocumented Alien and Human Smuggler covertly swimming, in the dark of night, across the Brownsville Ship Channel (a commercial ship channel) resulting in the Undocumented Alien's death as she was struck by the propellers of the SPC-LE on patrol (Findings of Fact d., k., l.).

b. Substantially Contributing Factors: I also find by a preponderance of evidence that the dark and overcast environmental conditions, and backlighting in that area of the BSC on the night of the mishap affected the visual acuity of the Undocumented Alien, Human Smuggler, and the SPC-LE boat crew, diminishing their ability to discern objects on the water (Findings of Fact g., l., m.).

c. Other Factor – Speed. It is the Board President's opinion that the SPC-LE's speed at the time of the incident was not appropriate given the history of smuggling activity in the area, the darkness and overcast conditions on that night, and the presence of background lighting. However, the SPC-LE's speed could not be considered as a substantially contributing factor because there is no evidence to support that the incident would not have occurred had the SPC-LE been transiting at a slower speed (Findings of Fact b., d., k., l., m.).

d. Exclusions.

1) Failure to identify Person in the Water. It is the Board President's opinion that the SPC-LE crew's failure to identify that they had struck a person in the water was not a

Subj: MAJOR INCIDENT INVESTIGATION (MII) REPORT
REGARDING THE DEATH OF A PERSON IN THE
BROWNSVILLE SHIP CHANNEL ON OR ABOUT 24 APRIL
2015 AND THE POSSIBLE INVOLVEMENT OF A STATION
SOUTH PADRE ISLAND (SPI) 33' SPC-LE SMALL BOAT

5830
14 Jul 2015

substantially contributing factor in this incident. It is common knowledge among law enforcement that the BSC is a crossing area for undocumented aliens, especially in the vicinity of the Shrimp Basin where this incident occurred. After hearing the thud sound and finding the floating innertube, the SPC-LE crew should have recognized the possibility of a person in the water, conducted a more thorough search, and made immediate notification to the Station. However, this failure was not a substantially contributing factor in this incident. The Undocumented Alien suffered traumatic injuries as a result of the propeller strike, resulting in almost immediate death. Therefore, the SPC-LE crew had no opportunity to rescue or treat the Undocumented Alien after the strike (Findings of Fact b., d.).

2) Human Smuggler's failure to alert SPC-LE crew. It is the Board President's opinion that the Human Smuggler's failure to alert the SPC-LE crew was not a substantially contributing factor in this incident. After the SPC-LE struck the Undocumented Alien, the Human Smuggler did not attempt to contact or alert the SPC-LE crew, who were searching in the area. By calling out for help, the Human Smuggler would have alerted the crew that there were people in the water. Rather, the Human Smuggler hid from the SPC-LE crew, thus contributing to the crew's incorrect assumption that they had only struck an abandoned and adrift innertube. However, the Human Smuggler's failure to alert the SPC-LE crew was not a substantially contributing factor to this incident because the Undocumented Alien suffered almost immediate death as a result of the propeller strike (Findings of Fact d.).

6. **Signature.** The Findings of Fact and Statement of Opinion are those of the Board President and do not constitute an official determination by the Coast Guard concerning the incident.


Captain, U.S. Coast Guard
President, MII Board

- Enclosures:
- (1) Evidence inventory
 - (2) Records transmittal letters
 - (3) MII Witness List
 - (4) MII Board Members List
 - (5) Coast Guard Operational Risk Management Manual, M3500.3 (series)
 - (6) Coast Guard Boat Operations and Training (BOAT) Manual Volume II, COMDTINST M16114.33 (series)
 - (7) Coast Guard Boat Operations and Training (BOAT) Manual Volume I, COMDTINST M16114.32 (series)
 - (8) List of Acronyms
 - (9) Inland Navigation Rule 6, Title 33 Code of Federal Regulations, Part 83.06