

BOARD OF PILOT COMMISSIONERS FOR THE BAYS OF SAN FRANCISCO, SAN PABLO, AND SUISUN

INCIDENT REVIEW COMMITTEE INVESTIGATION REPORT

REPORT OF THE ALLISION OF THE P/V RUBY PRINCESS WITH PIER 27, SAN FRANCISCO, ON JULY 6, 2023 PILOT: CAPTAIN DUSTIN SLACK

(Note: Addendum of corrections added to report)

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I. INTRODUCTION

- 1. On the morning of July 6, 2023, the P/V RUBY PRINCESS (hereinafter RUBY PRINCESS) inbound from sea to Pier 27, San Francisco. The piloting job was assigned to Captain Dustin Slack. The ship was due at the pilot station at 0445 hours, and was scheduled to berth at Pier 27, portside to, at approximately 0615.¹
- 2. Captain Slack boarded the RUBY PRINCESS at approximately 0443 hours. He was escorted to the bridge where introductions were made. Captain Slack and the master of the RUBY PRINCESS, Captain Mario Toni, conducted a master/pilot information exchange, which included a detailed review of the transit. Captain Toni relayed there were no vessel deficiencies. This was not the first time Captain Slack and Captain Toni had worked together. Based on their prior working relationship and past practice, it was understood that Captain Toni would take the conn² when the ship stopped off Pier 23 (adjacent and just south of the intended berth at Pier 27) and ready to back in.³ The discussion of the route included specifics about the ebb current that would be encountered off Pier 27.
- **3.** At 0452 hours, as the ship approached the Bar Channel, Captain Slack assumed the conn.
- **4.** Shortly after passing beneath the Golden Gate Bridge, Captain Slack contacted the tugs assigned to the vessel, the DELTA LINDA and the VALOR. The DELTA LINDA was instructed to put a line up on the starboard bow, and the VALOR was to shadow the port quarter without putting up a line.
- **5.** Between the Golden Gate Bridge and Alcatraz Island, the bridge team discussed the RUBY PRINCESS's maneuver to the berth. This discussion included the ship's captain assuming the conn once the ship was stopped off Pier 23 and transferring the ship control systems (engines and thrusters) from the center console on the bridge to the port wing control station. All of the ship's officers present on the bridge participated in this conference and acknowledged the planned maneuver.
- **6.** At approximately 0600 hours, Captain Slack maneuvered the ship to a position off Pier 23, at which time Captain Toni transferred the bridge controls to the station on the port wing control station and assumed the conn. This was announced to all members on the bridge team and was acknowledged by the pilot and crew.
- 7. After the change of conn, the ship began moving astern, rotating to port, with the VALOR pushing full on the port quarter. During the maneuver, the ship slowed its sternway and began moving ahead. Captain Slack was concerned that the ship was not moving out of the ebb current quickly enough and shared this concern with Captain Toni.

¹ The ship was initially due at 0415 hours, but due to an attempted United States Coast Guard airlift of a passenger who fell ill, it was delayed until 0445 hours.

² Conn is a shortened form of the word conduct, which when used in this manner generally means "conduct of the vessel's navigation."

³ The ship was scheduled to dock portside to the dock due to shore-power cable access restrictions.

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- **8.** With the ship moving ahead, the effect of the ebb current continued to push the ship laterally (or sideways) towards Pier 27. Captain Slack advised Captain Toni to abort the approach. Captain Toni agreed and put both engines ahead and both rudders hard to port.
- **9.** Although both engines were ordered full ahead, they were slow to respond, and the ship did not gain headway. The VALOR could not overcome the force of the ebb current, and to prevent the tug from becoming caught between the pier and the ship, Captain Slack shifted the VALOR further forward along the hull and resumed having the VALOR push full.
- 10. At approximately 0606 hours, the port quarter of the ship made unintended contact with Pier 27. Shortly thereafter, the ship began to gain headway. Once the ship was clear of Pier 27, Captain Slack reassumed the conn and the controls were shifted back to the center console of the bridge.
- 11. Captain Slack then maneuvered the ship back into position off Pier 23. With the bridge controls shifted back to the port wing control console, Captain Slack then commenced the backing maneuver and retained the conn until the ship was clear of the ebb current. Once clear of the current, Captain Toni once again took the conn and the ship moored to Pier 27 without further incident.
- **12.** The Incident Review Committee (IRC) consists of Commissioner Joanne-Hayes White (public member), as Chair, and Executive Director Allen Garfinkle. The IRC prepared this report pursuant to California Harbors and Navigation Code Section 1180.3 and Title 7, California Code of Regulations Section 210.
- **13.** A portion of the evidence relied upon in this report has been deemed confidential. To the extent that it can be shared with the public, we have done so.

Abbreviations in the report refer to the following:

- I. IRC Incident Review Committee
- II. **BOPC** Board of Pilot Commissioners
- III. FOIA Freedom of Information Act
- IV. USCG or CG United States Coast Guard or Coast Guard
- V. **VDR** Voyage Date Recorder
- VI. SFBP San Francisco Bar Pilots

II. FINDINGS OF FACTS

1. Vessel Identification and Description

RUBY PRINCESS is a Crown-class passenger liner registered in Bermuda. It was built by Fincantieri Cantieri Navali Italiani, Monfalcone, Italy and launched in 2008.

Vessel Particulars:

Length: 951 feet Beam: 159 feet (including bridge wing, 118 feet excluding bridge wing)

Tonnage: 113,561

Built: 2008, Fincantieri Cantieri Navali Italiani, Monfalcone, Italy

Owner: Carnival Corporation, & plc. Management: Princess Cruises.

Diesel Electric propulsion: Generators - 4 x 12,600 kW, 2 x 8,400 kW

Propulsion motors – 2 x 28.161 Hp each

twin propellers, twin rudders



2. Date of Vessel Movement

Date and Time: July 6, 2023, approximately 0606 hours

Location: Pier 27, San Francisco

3. Identification of Pilot

BOPC-licensee: Captain Dustin Slack

4. Weather and Sea Conditions

A. Weather Conditions

The weather conditions in the bay at the time of the docking were as follows:

Wind: 6-8 knots WSW'ly Visibility: good – 10 nautical miles

Weather: Clear

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B. Tidal Information

Calculated tide for Golden Gate Bridge, (9414290), at 0600 LT on July 6, 2023:

o Controlling depth 33' 08"

 \circ Height of tide at 0730 + 0' 10" and dropping

Depth at 0730
 Deep Draft
 UKC at docking (0600)
 34' 06"
 28' 07"
 5' 11"

C. Current Information

Calculated current for Pier 23, (SFB1206) Depth: 17 feet, at 0542 LT on July 6, 2023:

o Approximately 2.80 knot ebb

4. Names of Witnesses

The written statements of witnesses included are as follows:

Captain Dustin Slack Pilot of the RUBY PRINCESS (confidential)

Mr. Erkan Erdinch Ahmedov
Mr. Pasquale Maresca
Mr. Luigi Salem Marciano
Mr. Benjamin Francis Cutress
First Officer of the RUBY PRINCESS
First Officer on the RUBY PRINCESS
Deck Cadet on the RUBY PRINCESS

5, Statements of Witnesses

A. Statement of Captain Slack (Pilot)

Captain Slack stated:

- a. Assigned to pilot the RUBY PRINCESS from sea to Pier 27 at the Port of San Francisco at 1800 hours on July 5, 2023. He prepared for the assignment that evening, which included reviewing the tides and currents, as well as the SFBP guidelines, which required two tugs for this class of vessel in the predicted current.
- **b.** Had piloted vessels to Pier 27 on multiple occasions and this included the RUBY PRINCESS.
- c. Was well rested as this was his first assignment following his return to work after time off.
- **d.** Had piloted the RUBY PRINCESS with the same captain on prior occasions.
- e. Boarded the vessel from the pilot boat at 0443 hours. He was then escorted to the bridge where he participated in a Master-Pilot exchange, which included a detailed review of the transit. During the exchange, he was informed that there were no vessel deficiencies, and that the captain intended to take the conn when the ship was stopped off of Pier 23.
- **f.** Further discussed route specifics and the plan for docking with strong ebb current and the use of two tractor tugs for the maneuver.
- **g.** Assumed the conn at 0452 hours in the vicinity of Bar Channel Buoys 1 and 2.

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h. After passing under Golden Gate Bridge, contacted both tractor tugs, instructing DELTA LINDA to put up a line on the starboard bow, and VALOR to shadow port quarter without putting up a line.

- i. Participated in a bridge team discussion of the upcoming docking maneuver. Included in the discussed sequence of events was the ship's captain taking the conn alongside Pier 23, once the bridge control was switched to the port bridge wing. It was not unusual for Princess Cruises' captains to take the conn for docking.
- **j.** Maneuvered the RUBY PRINCESS to a position abeam Pier 23 and completely stopped. Requested bridge control be transferred to port wing.
- **k.** At 0600 hours the ship's master announced that he had the conn.
- **l.** The initial phase of the maneuver was going as planned, with the ship moving astern 0.7 knots, rotating to port, with the stern thruster working full to starboard and VALOR pushing against the port quarter.
- **m.** The ship's captain had split the engines (starboard engine going ahead and the port engine going astern⁴).
- **n.** While observing the maneuver and managing the tugs, he noticed the sternway was reducing and even gaining headway. He advised the captain they needed to stop the forward progress and immediately resume sternway. The concern was that the ship was not moving sufficiently out of the ebb current and into the current shadow⁵ of Pier 23.
- **o.** While this was acknowledged by the ship's captain, by the time the ship resumed moving astern, the current was overpowering the stern thrusters and the tugs, and the ship was moving laterally toward Pier 27. He advised the captain that they needed to abort the approach and move away from the pier as quickly as possible.
- **p.** The ship's engines were put full ahead and both rudders were put hard to port in an attempt to reduce the lateral movement towards Pier 27.
- **q.** Even with both engines full ahead and the rudders hard over, the ship would not lift away from Pier 27. He was not in a position to see the tachometers, but later learned that engine RPM's were increasing slowly.
- **r.** The VALOR was in danger of being caught between the ship and the Pier, so he had her shift forward, clear of the pier, and resume pushing.
- s. At approximately 0606 hours, the ship began to gain headway and move away from Pier 27. Once clear of Pier 27, the captain returned the conn to him and they had the controls shifted from the port wing back to the center of the bridge. At this time, there was no indication that the ship had made contact with the pier.

⁴ This was an assumption, with the VDR indicating that the ship's captain had done just the opposite.

⁵ Current shadow is an area where the effects of the current have decreased due to the presence of a physical object blocking IRC Report on P/V RUBY PRINCESS

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- **t.** Maneuvered the ship back into position off Pier 23 and had the VALOR put up a line to the center lead aft. He witnessed the ship's captain call the engine room and confirm that they would have emergency maneuvering revolutions on the second approach.
- **u.** The controls were again transferred to the port wing and Captain Slack initiated the maneuver and retained the conn until the stern was clear of the current and backing safely toward Pier 27.
- v. At approximately 0632 hours, the ship's captain again took the conn and the ship was maneuvered into position alongside Pier 27 without further incident.

B. Statement of RUBY PRINCESS First Officer Ahmedov

First Officer Ahmedov stated:

- a. On July 6, 2023, at 0510 hours, he was called to report to the Forward Mooring Station. Prior to reporting to the Forward Mooring Station, he was briefed by the Staff Captain on the planned maneuver and what to expect forward.
- b. He proceeded to the Forward Mooring Station and briefed all people involved in the mooring operation.
- c. Following instruction from the bridge, the tug was made fast with one line. He was instructed to notify the Staff Captain if the tug started pulling or pushing.
- d. After the approach was completed, he was advised that the ship will commence swinging bow to port.
- e. He was on the starboard side to monitor the actions of the tug, and reported to the bridge as soon as the tug began pulling. At that time, the swing was already in progress.
- f. As they were located far forward, they did not know if the ship had touched or not by listening to the radio reports from the aft station,
- g. A second attempt was made, and all proceeded well.

C. Statement of RUBY PRINCESS First Officer Marciano

First Officer Marciano stated:

- a. On July 6, 2023, he assumed the watch at 0400 hours with Second Officer James and Deck Cadet Francis.
- b. At 0445 hours the pilot joined them on the bridge.
- c. At 0447 hours, the captain and pilot completed their information exchange checklist, discussing weather and current, including ebbing tides and adverse strong current.
- d. At 0538 hours all thrusters were on bridge control and tested.
- e. At 0540 hours, two tugs were standing by.

- f. At 0541 hours, they pass the "commit point" with all (bridge team members) happy to proceed.
- g. At 0559 hours, approaching Pier 23 at a distance of about 120 meters, the current was 2.5-2.7 ebbing, winds light airs from WSW. Transfer of controls to port bridge wings was carried out.
- h. At 0600 hours, captain transferred to port bridge wing and took conn from the pilot.
- i. At 0601 hours moving astern with bow swinging to port.
- j. At 0603 hours he reported moving astern at 1.3 knots, with bow to port at 4.5 knots and stern to port at 0.6 knots and increasing.
- k. At 0604 hours he reported stern to port at 1.3 knots and increasing, with Aft Station reporting distances reducing fast, and Forward Station reporting tug pulling on line.
- 1. At 0606 hours the vessel contacted the pier on the port quarter. At this stage, the stern thruster was full to starboard and the (main) engine full ahead with the rudder hard to port to minimize impact with pier.
- m. At 0607 hours, vessel moving ahead and approach aborted.

D. Statement of RUBY PRINCESS Safety Officer Maresca

Safety Officer Maresca stated (note: references to communication with the "bridge" does not identify who on the bridge was communicating):

- a. At 0520 hours he was on the bridge for the Arrival Brief, as he was assigned to the Aft Mooring Station. The plan was to swing the bow to port and the stern to starboard.
- **b.** He went to the Aft Mooring Station and the rest of the crew arrived fifteen minutes later. The Safety Briefing was carried out, winches tested, and a positive report given to the bridge.
- **c.** The bridge asked to check clearance from the pier as the ship commenced to swing bow to port, stern to starboard.
- **d.** He was on the starboard quarter checking the clearance. The ship completed the swing safely and he relocated to the port quarter for the final approach to the berth.
- e. Suddenly the stern commenced to move fast, closing toward the pier. He reported to the bridge that the stern of the ship was closing fast at least three times. The bridge replied that the ship would commence to move ahead.
- **f.** The stern continued to move toward the berth. He ordered the crew to move away and remained on the Aft Station, in a safe position, as the possibility of the impact looked imminent.
- **g.** The stern touched the pier. As soon as the ship moved about three meters from the pier, he relocated on the port quarter and reported contact to the bridge.

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E. Statement of RUBY PRINCESS Deck Cadet Cutress

Deck Cadet Cutress stated:

- **a.** On the morning of July 6, 2024, he acted as the Administrator for the arrival under the supervision of Second Officer Peter.
- **b.** After the pilot boarded at 0443 hours, he finished preparing the checklist for arrival.
- **c.** At 0524 hours they carried out the arrival briefing and went into "red manning," which he logged at 0525 hours.
- **d.** He then reported to staff that the only outstanding checks were that thrusters needed to be on bridge control; to acknowledge final commit point and ensure that all team members and ECR were happy to commit; that the tug boat on starboard bow, (the) DELTA LINDA, was to be made fast; and that the VALOR on the starboard quarter should not be made fast.
- **e.** Following this report, the captain proceeded to ask all if we were happy to commit and he confirmed that from the checklist, he was happy to commit. Once (there was) full confirmation from everyone, he logged vessel committed at 0541 hours.
- **f.** He logged the transfer of the conn to the port wing and then the change of charge between the captain and the pilot.
- **g.** At 0605 hours, he heard the report come over the radio from Aft Mooring Station that the vessel was closing on the berth quickly before feeling the impact at 0606 hours. At this point the captain announced he was going to abort the approach.
- **h.** They then proceeded to retry the same maneuver, starting the turn at 0627 hours. He logged the first line ashore at 0646 hours and all fast at 0715 hours.

There were also statements from men assigned to lookouts, Darwin Calma Daproza and Manuel Bersabe Pelarada. These statements were included as attachments, but not detailed in this report as they did not add any material evidence.

7. Nature and Extent of Injuries

None.

8. Relevant Records from U.S. Coast Guard

A Freedom of Information Act (FOIA) request was submitted to the United States Coast Guard on July 7, 2023. The request was acknowledged the same day, but as of the time of this report, no information had been received.

9. San Francisco Bar Pilots Guidelines

The San Francisco Bar Pilots have internal guidelines for certain geographical areas within the jurisdiction or types of vessels. One set of these guidelines pertain to cruise ships and the tugs required for berthing. In this instance, the applicable guideline for a cruise ship with conventional propulsion twin screw vessels

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with adequate bow and stern thrusters going to Pier 27 calls for two Class A tractor tugs when the current is ebbing at 1.5 knots or greater.

10. Pilot Work/Rest History

As per his statement, Captain Slack was returning from off (work) period and this was his first assignment after returning, and he was well rested.

11. Results of Chemical Testing

Department of Transportation chemical panels and alcohol tests were conducted, as well as Board-mandated toxicology urinalysis post-incident testing, was conducted on Captain Slack all with negative results.

12. Pilot Licensee Background Information

- a. Captain Slack was first licensed as a pilot on July 1, 2008.
- b. Captain Slack has no prior incidents.

13. Other Evidence Considered

- a. Copy of the RUBY PRINCESS deck log.
- b. Copy of the Pilot Card.
- c. Voyage Data Recorder (VDR) file (without audio) of the inbound transit of the RUBY PRINCESS.
- d. VDR video (with audio of the port bridge wind microphone) covering the time from the transfer of the conn to the master to shortly following the allision and aborted mooring attempt.

III. TIMELINE OF EVENTS

1. Timeline from ships deck log and other evidence:

0443 hours	Pilot arrives aboard the RUBY PRINCESS
0445 hours	Pilot arrives on bridge
0447 hours	Initial master/pilot information exchange completed
0456 hours	Pilot assumes conn
0517 hours	Yellow manning ⁶ (harbor) condition declared
0519 hours	Arrival briefing conducted
0525 hours	Red manning declared
0534 hours	Bridge personnel request thruster control shifted to bridge
0538 hours	Thrusters on bridge control and tested satisfactorily. ECR pre-arrival checklist
	completed.
0539 hours	Tug VALOR standing by
0541 hours	Passing "commit point"
0549 hours	Tug DELTA LINDA standing by, fast on stbd. bow, one line
0549 hours	All pre-arrival checklists completed

⁶ Yellow and Red manning conditions are Princess Cruises company devised watch conditions.

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O559 hours Transfer of conning position to port wing, start swing to port

0600 hours Captain conning

0606 hours Unintended contact with pier 27 on port quarter, aborted approach (log)

O607 hours Ship moving ahead, approach aborted (C/M statement)

0610 hours Transfer of conning position to bridge, centerline

0612 hours Tug VALOR shifting to stbd. quarter 0613 hours Tug VALOR fast stbd. quarter one line Commence second approach to Pier 27

0627 hours Start swinging to port

0628 hours Transfer of conning position to port wing

0646 hours First line ashore

0704 hours Finished with tugs VALOR and DELTA LINDA

0705 hours Finished with engines

0715 hours All fast

2. Narrative timeline

The RUBY PRINCESS arranged for pilot boarding at 0445 hours. At 0443 hours, San Francisco Bar Pilot Dustin Slack boarded at the San Francisco Pilot Station. He was escorted to the bridge at 0445 hours. By 0447 hours, the initial master/pilot information exchange was completed where the weather, tides, currents, and ship's condition were discussed. The strong ebb current expected along the city front was discussed and no vessel deficiencies were noted. Also discussed was the captain taking the conn once the vessel was stopped adjacent to Pier 23, just prior to the initiation of the docking maneuver.

At 0456 hours, the pilot assumed the conn. At 0517 hours, the harbor (yellow) manning condition was declared. Following that, at 0519 hours, the arrival briefing was conducted, and the arrival checklist was completed. At 0524 hours, stand-by engines was declared and the personnel in the engine control room were notified. At 0525 hours, red manning condition was declared. At 0534 hours, bridge personnel requested bridge control of bow and stern thrusters. At 0538 hours, all thrusters on bridge control tested satisfactorily, and the engine control room pre-arrival checklist was completed. Tug VALOR was standing by at 0539 hours and at 0541 hours ship passed the "commit point," where all members of the bridge team acknowledge readiness. At 0549 hours, tug DELTA LINDA was standing by and all pre-arrival checklists were complete.

With the ship approaching Pier 23, bridge control was shifted to the port wing at 0559 hours. At 0600 hours, the captain took the conn from the pilot. Following the change of conn, the captain proceeded to back the ship toward the berth and out of the current. At 0606 hours, with the majority of the ship still exposed to the current, the port quarter made unintended contact with Pier 27. When it became clear that the ship was out of position and the approach was not proceeding as planned, at 0606 hours the decision was made to abort the approach and reposition the ship for a second approach. Also, at 0606 hours, the log indicates the engines were put ahead. At 0610 hours, the control was shifted back to the centerline helm station. At 0612, the VALOR was shifted to the starboard quarter and put up one line. At 0615 hours, the second approach was initiated. At 0627 hours, the log indicated the swing to port commenced and a minute later, the controls were transferred to the port bridge wing. The next log entry related to maneuvering is at 0638 hours,

⁷ The Master-Pilot conference or information exchange is a standard process where the master informs the pilot of any information pertinent to the anticipated transit, and the pilot discusses the route, traffic to be encountered and any other information pertinent to the transit.

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when a heaving line was sent ashore, followed by First Line (ashore) at 0646 hours. The log does not reflect any further change of conn after the 0600 hours entry.

IV. ANALYSIS AND CONCLUSIONS BY THE IRC

Jurisdiction

The Legislature has delegated authority to the Board of Pilot Commissioners (Board) to establish an incident review committee to review all reports of misconduct or navigational incidents involving pilots or other such matters for which a license issued by the Board may be revoked or suspended. Harbors and Navigation Code §1181 defines misconduct, in part, as (g) negligently, ignorantly, or willfully running a vessel on shore, or otherwise rendering it liable to damage, or otherwise causing injury to persons or damage to property. Based on the evidence collected, the IRC has ruled out ignorance and willfulness in this instance and limited the discussion to an examination of negligence.

Standard of care

The negligence standard of care calls for an evaluation of whether a pilot exercised that degree of care and skill possessed by "the average pilot." The pilot must exercise the degree of skill commonly possessed by others in the same employment, and although the pilot is not liable for mere errors in judgment, they are liable for damage caused by their failure to exercise the diligence which other pilots similarly situated would ordinarily have exercised. This is a high standard of care one would expect of an expert, such as a maritime pilot. But while the Board may use evidence of negligence as an analysis tool, a finding of misconduct is more nuanced.

As happened in this case, and in maritime law, when a moving vessel strikes a stationary object an inference of negligence arises, and the burden is then upon the owners of the vessel, or in the case of a licensing action, the licensee, to rebut the inference of negligence.

As a preface to the analysis, it is important to note that the scope of this report is primarily limited to an examination of the conduct of the licensed pilot aboard.

Analysis

Early in the investigation it became clear there are issues presented by the evidence that go beyond the mechanics of why the ship made unintended contact with Pier 27. Key among them is the propriety of the pilot relinquishing the conduct of the vessel to the master.

This report will examine the mechanics of why the RUBY PRINCESS made unintended contact with Pier 27 by first discussing the intended berthing maneuver, followed by an application of the evidence to the plan in an attempt to determine why the intended maneuver was not successful.

Next there will be a discussion of the principle of compulsory pilotage and whether allowing a ship master to conn a ship in waters where compulsory pilotage is the law is contrary to policy⁸ and supports a finding of misconduct.

⁸ The word "policy" is used here in a broad sense meaning to encompass existing statute or regulations in this jurisdiction or others, as well as guidelines or customs practiced.

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The intended maneuver

The evidence shows that the intent was to drive the ship along the city front and come to a full stop adjacent to Pier 23, with the forward third of the ship overlapping the Pier; then simultaneously back the ship into the berth while swinging the bow to port until it was parallel to Pier 27, using the engines, thrusters, and tugs. The ship was berthed stern-first (as opposed to going head-in) to accommodate the alignment with shore power. While this is not an inherently unsafe maneuver, it does require considerable ship handling skills.

The actual maneuver

The evidence shows that the pilot and bridge team followed accepted company procedure and best practices throughout the bar crossing and approach to Pier 27. The evidence also shows that there was a mutual understanding by both the master and pilot on the docking evolution, including the assumption that the master was going to take over conduct of the vessel (commonly referred to as "the conn") for the final approach. Once the vessel was stopped directly off of Pier 23, the conn was transferred to the master.

Ship master at the conn

During the docking maneuver, the evidence indicates that Captain Toni both underestimated the effects of the current on the ship and the urgency required to move the ship into the shadow of Pier 23 as expeditiously as possible and used the engines in such a way as to retard the progress astern while simultaneously resisting the rotation to port. As a result, the ship did not travel astern sufficient to mitigate the effects of the current nor rotate to port sufficiently. As a result, the port quarter made unintended contact with the dock, resulting in a breach of the hull.

The evidence supporting the conclusion that the ship's master underestimated the effects of the current and the urgency required is found in an analysis of the use of the engines as shown by the VDR. In the VDR, we hear the conn shifting to the captain at 06:00:03. At that point the ship has not yet begun to the backing turn to port and both engines are ordered and turning at 32 rpms astern.

Ship master's use of the main engines

(Note: Engine orders and speeds will be expressed in revolutions per minute or "rpms." There is lag time between when the engine order is given and the engine order is achieved. The orders given will be labeled "ordered" and the actual rpm will be labeled "actual", "turning", or "achieved".)

When Captain Toni assumed the conn at approximately time 06:00:00, both port and starboard engines were turning 32 rpms astern. At time 06:00:41, the port engine was ordered 34 rpms ahead, while the starboard engine was still ordered and turning 9 rpms astern. Twelve seconds later, at time 06:00:53, the port engine was ordered to 55 rpms ahead (13 ahead achieved), while the starboard engine was turning astern at 9 rpms. The port engine order increased to 61 rpms ahead at 06:01:04 (38 rpms ahead achieved) and up to 70 rpms ahead ordered at 06:01:17 (48 rpms achieved). By time 06:01:50, the port engine was turning 70 rpms ahead. At time 06:02:00, the starboard rpms ordered had increased to 23 astern (19 astern achieved), but the port engine was still turning 63 rpms ahead. Twenty-four seconds later, at time 06:02:24, the port engine was ordered reduced to 28 rpms ahead (still turning 32 rpms ahead), and the starboard engine was ordered to 56 rpms astern (44 rpms astern achieved). Finally, at time 06:02:35, the captain ordered 42 rpms astern on the port engine (then still turning 22 rpms ahead), then increased the order to 52 rpms astern at time 06:03:12. It is not until time 06:02:55 that the port engine began turning astern (starboard engine turning 42 rpms astern). It is not until time 06:04:00 that both engines were

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turning astern. It then took almost another full minute for the port engine to approximately achieve the ordered rpms of 52 astern (time 06:03:42). By this time, the ship was heading 050 degrees, but nearly the whole of the ship's hull was still outside the shadow of the piers and continued to be subject to the ebb current. At time 06:05:00, both engines were ordered half-ahead, but were still turning 27-29 rpms astern. Thirty seconds later, at time 06:05:30, both engines were ordered to 71 rpms ahead (achieved 5-7 rpms). At that point, only the stern (or about ¼ of the ship's hull) was in the shadow of the pier. At time 06:06:00 both engines were ordered to 115 rpms ahead. Thirty seconds later, the captain announced, "contact on the port side," and at 06:06:51 he ordered the approach aborted.

For nearly half of the time between the captain taking the conn from the pilot and the allision with the pier, the port engine was turning ahead. This is significant because to make this maneuver successfully and to move the ship out of the current, the primary astern propulsion should have been coming from the port engine to twist the ship to port. The effect of using the port engine ahead and the starboard engine astern was to resist the turn to port, while delaying the movement of the ship out of the effects of the ebb current.

This use of the engines is also contrary to what the pilot expected, as evidenced by his recollection that Captain Toni had split the engines, and his mistaken assumption that when doing so the captain had put the port engine astern and the starboard engine ahead, when in fact, for at least three full minutes, the very opposite occurred. Part of this confusion may be due to Captain Slack locating himself on the forward side of the port wing control console, with a view of the throttle but not of the tachometers.

Ship master's use of ship's thrusters

The RUBY PRINCESS is equipped with three bow thrusters and three stern thrusters, each with four blades. The bow thrusters produce 2948 horsepower (hp) each, for a total of 8844 hp. The stern thrusters produce 2304 hp each, for a total of 6912.

At the time the bridge controls were shifted to the port wing, the thrusters were at zero thrust. At time 06:00:30, the stern thrusters were engaged to 80% to starboard, and within the next 30 seconds, increased to 100%. At time 06:01:00 the bow thrusters were engaged 100% to port. Between minute 06:02:00 and 06:02:30, the stern thrusters were reduced to between 50 and 60% power to starboard, while the bow thrusters are reduced to 50%, then 25%. Curiously, at time 06:02:18, the stern thruster was shifted to 60% to port and at time 06:03:10 80% to port, and ten seconds later, 100% to port. It is unclear why this was done, as it appears contrary to the rotation intended. At time 06:03:50, both bow and stern thrusters were stopped. They remained stopped until time 06:04:30, when the stern thruster was again engaged to 100% to starboard, where it remained throughout the allision and into the abort maneuver. Shortly after the allision, at time 06:06:18, the bow thrusters were engaged 100% until time 07:00:00.

While we do not have all the reasons for and do not want to second-guess the reasons for using the thrusters the way they were employed, it appears the thrusters were not used optimally, particularly the bow thrusters. It is key to note that, when a ship is moving astern, the pivot point shifts aft of midships, making the lever arm of the bow thruster greater and thus, more effective. Conversely, the stern thrusters are generally less effective when moving astern.

Observing the rate of turn (ROT) of the vessel, we note that when the conn was assumed by Captain Toni at time 06:00:00, the ROT was essentially zero, slowly increasing to 10 degrees per minute to starboard at time 06:01:00. The ROT then increased rapidly for the next minute to 30 degrees per minute to starboard and remained at over 30 degrees to starboard until time 06:02:40, when it started dropping. It dropped steadily to 22 degrees per minute at time 06:04:00, and 10 degrees per minute by 06:05:00. By

time 06:05:30, just prior to the allision, it reduced to a ROT of zero. While it is speculation, there appears to be a correlation between reducing the use of the bow thruster and the ROT decrease.

Use of tugs

There were two tugs employed for the berthing of the RUBY PRINCESS, the DELTA LINDA (89-ton bollard-pull tactor tug) and the VALOR (91-ton bollard-pull tractor tug). The DELTA LINDA was instructed to put up a line on the starboard bow, while the VALOR was instructed to shadow the port quarter without putting up a line. The pilot reasoned that leaving the VALOR with no line would allow the tug to work ahead against the hull (to counter the force of the current) while providing flexibility for the him to place her where needed as the ship maneuvered.

Unfortunately, as the stern of the ship approached Pier 27, the VALOR was forced to move forward along the hull or risk being caught between the hull of the ship and the pier. As the VALOR moved forward (towards midship and the pivot point) she was less effective in countering the current. When the approach was aborted and the RUBY PRINCESS moved away from the berth for a second attempt at the maneuver, the VALOR was shifted to the starboard quarter with a line attached.

Master versus pilot conning

On first blush, one might be drawn to the conclusion that, since the master was at the conn, there would not be any misconduct on the part of the pilot for the allision with Pier 27. Yet the very act of allowing the master to conn his ship during the final approach to the dock raises questions that go the very heart of pilotage on the bay, to wit: if a pilot licensed by the state is required by law to move certain vessels on the waters of San Francisco Bay and tributaries (referred to as compulsory pilotage), when, if ever, can he or she cede the authority bestowed by that license to another person, including the master of a ship?

To answer this question, we shall look first at the nature of compulsory pilotage, and the respective roles of the pilot and the master of a ship.

Compulsory Pilotage

"The general scheme in effect throughout the most of the world is one in which a vessel approaching the coast with the intent of making port has a compulsory obligation to accept a local pilot." In the confined or restricted waters of port approaches where the margins of error are small and the activity intense, most Port States protect their interests by requiring the presence onboard of a local compulsory pilot." The purpose is to protect the safety of shipping by assuring that a complement of pilots will be available when needed at designated locations (pilot stations) and by placing navigational control of the ship in the hands of a qualified local expert when the ship is in a high risk area." He is required to be accepted by the vessel and placed in charge of her navigation to serve the state's interest in protecting life and property—and in today's world, the environment—from the hazards of navigation."

In the United States, federal law, through The Federal Lighthouse Act of 1789 (now codified in 46 U.S.C. §8501(a)), provides that, with limited exceptions, pilots shall be regulated only in conformity with the laws of the States. Every coastal state, including California, has relied on this federal authority to enact a compulsory pilotage requirement—a law compelling vessels to take a state-licensed pilot.

⁹ Pilotage, Captain George Quick, page 37

¹⁰ The Role of the Pilot In Risk Management, Captain George Quick, page 2

¹¹ *Ibid*, page 38

¹² *Ibid*, page 38

California's compulsory pilotage laws are found in the Harbors and Navigation Code (hereinafter "Code"). They begin with the Legislature declaring the policy of the state "to ensure the safety of persons, vessels, and property using Monterey Bay and the Bays of San Francisco, San Pablo, and Suisun, and the tributaries thereof, and to avoid damage to those waters and surrounding ecosystems as a result of vessel collision or damage, by providing competent, efficient, and regulated pilotage for vessels required by this division to secure pilotage services." (See Code §1100.) Section 1101(f) of the Code states: "The need to ensure safe and pollution-free waterborne commerce requires that pilotage services be employed in the confined, crowded, and environmentally sensitive waters of those bays."

Code section 802 states: "On entering or leaving a port, harbor, or river, the master of a vessel, the navigation of which is not in charge of a pilot, licensed for that port, harbor, or river, shall take a pilot if one offers himself. While the Pilot is on board the navigation of the vessel devolves on him." Additionally, Code section 1125 provides that "[p]ilots licensed by the board have exclusive authority, to the extent not provided otherwise by federal law, to pilot vessels from the high seas to Monterey Bay and the Bays of San Francisco, San Pablo, and Suisun and the ports thereof, and from those bays and ports to the high seas. They shall also have exclusive authority to pilot vessels within and along the waters of those bays..." Finally, Code section 1132 states that "[e]very pilot in charge of a vessel arriving in Monterey Bay and the Bay of San Francisco, San Pablo, and Suisun, shall safely moor the vessel in place and position as directed by the master of the vessel, consistent with safe navigation and not contrary to law."

A key principle underpinning the extant compulsory pilotage system is the independence of the pilot, whose duty is not to the vessel or the vessel's operator, but to the state and its public interests. ¹³ The Supreme Court has recognized that "pilots hold a unique position in the maritime world . . . Under law and custom, they have an independence wholly incompatible with the general obligations of obedience normally owed by an employee to his employer . . . As a rule, no employer, no person, can tell them how to perform their pilotage duties." ¹⁴

That said, it is also well-established that the "taking on of a pilot does not divest the master of a ship of all his authority and thereby relieve him of the over-all responsibility for its navigation.¹⁵ As explained over a century ago in *The Oregon*, "[w]hile the pilot, doubtless, supersedes the master, for the time being, in the command and navigation of the ship, and his orders must be obeyed in all matters connected with her navigation, the master is not wholly absolved from his duties while the pilot is on board . . . He is still in command of the vessel, except so far as her navigation is concerned, and bound to see that there is a sufficient watch on deck, and that the men are attentive to their duties." ¹⁶

"On the bridge of a ship the master/pilot relationship might best be understood if we make the distinction between Power and Authority. Power can be defined as the ability to act without regard to the right to act, while Authority can be described as the right to act without regard to the means or ability to complete the act. At sea, the master has both the power and the authority over the ship and its crew, but on entering pilotage waters the authority to direct and control the movement of the ship shifts by operation of our laws to the pilot. What binds their relationship together is that the pilot's authority can only be exercised in cooperation with the master's power to command the crew, and master's power to have the ship moved

¹³ Kirchner & Diamond, *Unique Institutions, Indispensable Cogs, and Hoary Figures: Understanding Pilotage Regulations in the United States* (2011) 23 U.S.F. Mar. L.J. 168, 188.

¹⁴ Bisso v.Inland Waterways Corp. (1955) 349 U.S. 85, 93-94.

¹⁵ S. States Towing Lines v. Lee Transit Corp. (2d. Cir. 1944) 144 F.2d 101, 102.

¹⁶ The Oregon (1895) 158 U.S. 186, 194-195.

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can only be lawfully exercised in cooperation with the pilot's authority to direct and control the movement of that ship." ¹⁷

"Confusing the issue on checks and balances in the relationship is the mistaken perception that the pilot is aboard in an advisory capacity. This is not true in actual practice in pilotage waters or in the law as applied in North America. The pilot 'conducting' the ship gives all the directions concerning the ships movement and it is the master who may advise the pilot as to the capabilities of the ship or its equipment or crew. If the master was actually giving the directions with the pilot's advice the ship would not be under pilotage and in compliance with the local laws." ¹⁸

"The distinction is important because if the pilot were merely an advisor whose assessment could be accepted or rejected at will, he could not fulfil his role as an independent judge of acceptable risks. He might be persuaded to go along contrary to his personal judgment under the belief that the master would have the final or ultimate responsibility for accepting the pilot's advice in the event of an accident." The question thus arises: given California's compulsory pilotage system, when, if ever, is it appropriate—or even required—for a master to take control of a vessel from the pilot? To address this issue, it is necessary to look first at the statutes and regulations, as well as case law. For situations not explicitly addressed by the statutes or case law, the analysis turns to case law from other jurisdictions and local customs.

A master may take control of the vessel to avoid imminent danger

"The law being practical and realistic recognizes that situations could arise where the master would be justified in displacing a compulsory pilot and court decisions dealing with the issue have developed guidance. If the pilot is manifestly incompetent, or is intoxicated or otherwise incapacitated, or if the pilot's actions are placing the ship in dear and imminent danger the Master can intervene and if the safety of the ship is in jeopardy, he has a duty to intervene."²⁰

"There may be occasion on which the master of a ship is justified in interfering with the pilot in charge, but they are very rare. If we encourage such interfering, we should have a double authority on board, a *divisum imperium*, the parent of all confusion, from which many accidents and much mischief would probably ensue. If the pilot is intoxicated or is steering a course to the certain destruction of the vessel, the master no doubt may interfere and ought to interfere, but it is only in urgent cases."²¹

"Although it is understood that the master can displace a pilot for cause and never relinquishes responsibility for the safety of his ship, that does not mean he has unbridled discretion to substitute his judgment for that of the pilot or relieve the pilot at will. If the master acts to displace the pilot he is not free to proceed on his own, but most request another pilot or resolve the issue with the pilot on board before proceeding."²²

¹⁷ Master/Pilot Relationship, The Role of the Pilot in Risk Management, George Quick, page 3

¹⁸ Ibid, page 4

¹⁹ *Ibid*, page 4

²⁰ *Ibid*, page 4

²¹ The Law of Tug, Tow, and Pilotage, Parks and Cattell, 3rd. Ed., page 1009

²² *Ibid*, page 5

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Other situations where a master may take control

While a master may take control of a vessel from a compulsory pilot in cases where such action is necessary to prevent imminent danger or where the pilot is incapacitated or incompetent, there are other situations where doing so is allowed by law or where it is consistent with local custom or practice.

At least one state has specifically addressed the issue in regulation. In the State of Washington, the master of a passenger vessel not requiring a tug for docking or undocking is permitted to maneuver the vessel into or out of its berth.²³ This exception in the State of Washington can be contrasted to the law in the State of Alaska, which states: "The pilot may voluntarily relinquish the conn to a ship's officer, but may reassume the conn at any time."²⁴ California, however, does not contain such statutory or regulatory exceptions to the compulsory pilotage requirement.

That said, it is long-established under general rules of maritime law that compliance with common custom and usage may be evidence of due care. Prior to the amalgamation of the Bar Pilots and the "inland pilots" in the 1980's, compulsory pilotage requiring a state license was only required for crossing the bar when entering or leaving San Francisco Bay. Anyone with a federal license could provide inter-bay, docking and river pilotage services. For example, in the 1970's, there were at least three distinct groups providing these services: the California Inland Pilots Association (CIPA), Independent Pilots (no association), and Tugboat Pilots (Red Stack Lines). Bar pilots would bring ships across the bar and hand them off to an Inland Pilot or docking pilot for berthing or travel to an inland port.

This situation changed in 1984, when the Legislature amalgamated the Inland Pilots, independent pilots and the Red Stack pilots with the Bar Pilots by enacting Code section 1140, which states: "(a) It is the intent of the Legislature to provide for a unified system of state regulated pilotage for Monterey Bay and the Bays of San Francisco, San Pablo, and Suisun. (b) The Legislature finds and declares that unified pilotage will be beneficial to the safety of people, vessels, and property using those bays and tributaries. (c) The Legislature further finds and declares that unified systems of regulated pilotage are common to the ports of the world and are most familiar to, and best able to serve, both foreign and domestic vessels."

Since the amalgamation, all vessels required by law to have a pilot are required to employ a state-licensed pilot. Yet there has been a local custom, at least among some of the pilots, to allow ship masters to perform their own docking or undocking.²⁶ It appears that, at least for San Francisco Bay and its tributaries, this decision has been left up to the individual pilot, and most licensees either believe it is allowed or find it a grey area.

Duty to advise

In cases where the master finds the pilot manifestly incompetent, intoxicated or otherwise incapacitated, or if the pilot's actions are placing the ship in dear and imminent danger and relieves the pilot from the conn, the pilot still has a duty to continue to advise the master. "When and if a pilot's orders are countermanded by the master, the pilot is not relieved of further responsibility to remain on duty."²⁷

²³ Wash. Admin. Code §363-116-365

²⁴ 12 AAC 56.90. Duties of Pilots

²⁵ The Government of Pilots, Lester B. Knight & Assoc., page 55

²⁶ A survey of seven retired San Francisco Bar Pilots revealed that most considered this a "grey" area, and many felt that it was common practice by pilots to allow some ships, particularly passenger ships, to do their own docking or more commonly, undocking.

²⁷ State Board of Marine Pilots v. Renwick, 1997 AMC 1341 (AK. 1997)

The same logic would apply in situations where the pilot voluntarily relinquishes the conn. Here, evidence shows that the conn was relinquished voluntarily and there is no dispute that the ship's master was conducting the movement of the ship when it allided with Pier 27. The pilot continued to advise the master and stay engaged by communicating with the tugs and providing guidance. Unfortunately, his position on the port wing (pictured below), forward of the control station, may have hampered his ability to monitor the controls and the instruments, thereby truncating his advice.



It is also necessary to distinguish between situations where a ship captain relieves the pilot (for cause or by mutual understanding) and the pilot provides advice with those where the pilot is providing supervision to a trainee.

In the case where a pilot is supervising a trainee, there is a significant relationship power differential between the pilot and the trainee, and their roles are clearly established. In the case where a ship captain is relieving the pilot, they begin (generally) with a relationship power parity, and the act of relieving the pilot of the conn creates a power differential favoring the master. In these cases, the ability to influence the person at the conn with advice is diminished. In addition, there is the danger of creating the impression among the bridge team that there is a divided command.

Conclusion

The Board is very narrowly charged with deciding whether the licensed pilot involved was negligent and if that negligence leads to a finding of misconduct. To find negligence, we are charged with comparing the actions of this pilot to the degree of skill and care commonly possessed by others in the same employment, that is, a pilot engaged in similar tasks with similar training.

In this event, it is unchallenged that there was damage to the RUBY PRINCESS and the Port of San Francisco's Pier 27. As planned, this maneuver was a challenging one, due to the strong ebb current, and required a skilled ship handler familiar with the local conditions to be successful. The Board puts considerable resources toward providing a cadre of licensees who have these skills and are familiar with

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the conditions and how best to mitigate the risks. The Board does this through an extensive training program and regular continuing education in manned models and simulators.

Yet, in this case, Captain Slack ceded his authority to conduct the movement of this ship to Captain Toni. In fact, it appears from the evidence that the transfer of the conn was assumed by the parties early in the transit. This assumption may have evolved over multiple transits in which Captain Toni and Captain Slack worked together, generating trust and goodwill between the two, and thereby establishing a pattern of conduct leading to the casual acceptance that this action of transferring the conn for docking was expected or inevitable. The level of comfort that Captain Slack felt in allowing Captain Toni to have the conn speaks volumes about the prevailing local customs that have evolved and stubbornly remain.

The evidence supports that Captain Toni was well briefed on the intended maneuver, yet we find that he did not apply the bridge resources in a manner consistent with the plan, thereby allowing the port quarter of the ship to make unintended contact with Pier 27.

The evidence indicates that Captain Toni used the engines contrary to accepted or best practice when executing a backing turn to port, which generally would call for backing the port engine and going ahead on the starboard engine to create a twisting force. The success of this backing turn relied, to a great degree, on bringing a good portion of the hull into the ebb current shadow of Pier 23, which, in turn, required a particularly aggressive backing maneuver. For at least the first three minutes (of the six between when Captain Toni took the conn and the allision) the port engine was ordered ahead, and the starboard engine barely backed.

The evidence also supports that the ship's thrusters may not have been employed consistent with the berthing plan. While Captain Toni achieved an initial rate of turn consistent with the docking plan of over 30 degrees per minute, the turn began to stall three minutes into the maneuver and by five minutes was down to 10 degrees per minute. The evidence shows the stern thruster was applied to port through much of the maneuver (resisting the ROT), and after an early and aggressive use of the bow thruster, it was greatly reduced after the first three minutes of the maneuver, contributing to the rapid decline in the ROT.

Alas, the Board has no jurisdiction over the master of the ship, but we do have jurisdiction over actions taken by Captain Slack. Did Captain Slack meet his burden to advise, and is the act of relinquishing the conn in and of itself misconduct?

Would any of these inconsistences have happened if Captain Slack had not relinquished the conn and performed the first maneuver himself? While we cannot answer that question, we do have evidence of a successful second attempt at berthing under nearly the same conditions. While the ship's log is silent about any change of conn after the initial one to Captain Toni, Captain Slack stated that he took the conn again at time 06:08 and retained it until the stern was clear of the current and safely backing toward Pier 27. He once again relinquished the conn to Captain Toni for the final stage of docking.

Even though Captain Slack relinquished, the conduct of the ship, had a duty to continue to pilot, albeit now in an advisory role. The evidence supports that Captain Slack continued to play an active role in the berthing but placed himself at a disadvantage by placing himself on the forward side of the control station, and not making sure he could effectively monitor all the controls. Captain Slack communicated with and continued to direct the motion of the tugs during the berthing maneuver and provided timely impetus for the eventual decision to abort the first approach.

While Captain Slack did not observe the anomalies in the use of the engines and thrusters, he did have a duty to continue to pilot and provide advice. While we find Captain Slack's actions do not rise to the level

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of misconduct with respect to his duty to advise, we do feel that not placing himself in a position to fully monitor the actions of Captain Toni was an error in judgment.

What remains is the question of whether the act of relinquishing the conn is in and of itself misconduct. The strongest support for a finding of misconduct related to this act can be found in the Code, first in section 802, where it states that one must employ a pilot when one is available, and while the pilot is on board, the navigation of the vessel devolves on him. Secondly, section 1125 of the Code states that statelicensed pilots have exclusive authority to not only take vessels from sea into the bay, and take vessels from the bay to sea, but also have exclusive authority to pilot vessels within and along the waters of those bays. Finally, section 1132 of the Code states that "[e]very pilot in charge of a vessel...shall safely moor the vessel in place and position as directed by the master of the vessel."

Taken together, they make a strong statutory argument that, in this jurisdiction, a pilot is not only in charge of the navigation of the vessel, but also has exclusive authority to move it with these waters, up to and including safely mooring it. Read together with the case law stating that a master shall only relieve the pilot of the conn in cases of the pilot's intoxication or manifest incapacity, or in cases of great danger, one could conclude that doing so for a non-emergency maneuver is neither contemplated or permitted by California law and would support a finding of misconduct.

That said, it is long-established under general maritime law that compliance with common custom and usage may be evidence of due care. Accordingly, local custom may be an appropriate consideration when determining the propriety of a master taking the conn from the pilot in a non-emergency situation.

There exists in the jurisdiction a long history of compulsory pilotage being only applied to passages to and from the high seas into San Francisco Bay (hereinafter "bay"). Since the amalgamation of the bar pilots and the inland/docking pilots in the mid-1980's compulsory pilotage has been the rule within the bay. Even then, there has been a practice of allowing certain ship masters to conn their own vessels, particularly cruise ships in the near vicinity of the berth. The prevailing logic appears to be that cruise ship captains have extensive training and experience handling their unique vessels, since cruise ships are generally in and out of ports more frequently than cargo ships. Layered on top of this perception that cruise ship captains have greater experience handling their ships is the fact that many cruise ships have more complicated and advanced propulsion systems (such as Azipod systems) with which the ships' captains have greater experience.

In an attempt to determine the prevalence of the custom allowing ship masters to conduct the movement of their own ships, an anecdotal survey of retired licensees from this jurisdiction, with both inland and bar pilots represented, was conducted. Many of those surveyed had piloted both pre-amalgamation and post-amalgamation. Most of those surveyed confirmed that it was a common practice to allow masters to conn, particularly cruise ship masters. Most confirmed that, in those situations where they did relinquish the conn, they would continue to pilot by offering advice. All of those surveyed believed that the standard is unclear, and one noted that if there are sixty licensees, there would be sixty different opinions about what compulsory pilotage means. What appeared to be universal among those surveyed was the thread that greater clarity on this policy would be welcomed by all licensees. Such an action would provide the licensees with additional tools with which to address pressures to deviate from and to enforce the stated policy.

We can also infer from the RUBY PRINCESS event that the practice was so well accepted that Captain Slack, a licensee with fifteen years' experience, felt entirely comfortable allowing the ship captain to have the conn. As noted earlier in the report, there may also have been an expectation, based on prior experiences, that the master would be allowed to conn his vessel to the dock on this occasion.

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Therefore, in spite of clear statutory language, there existed local custom that appears to have persisted from the time prior to amalgamation to this day. When considering if Captain Slack's actions of relinquishing the conn of the RUBY PRINCESS amounts to misconduct, we acknowledge that the interpretation of the statute has been tempered by local custom and practice. For those reasons, while we find that this is a systemic problem that should be addressed on a policy level, we also find that by ceding his authority to conn the RUBY PRINCESS, the actions of Captain Slack were negligent. However, this negligence falls short of a finding of misconduct. For these reasons, we feel that a issuing a Letter of Warning to Captain Slack would be the appropriate action in this case.

Rather than addressing this systemic problem through a finding of misconduct for one pilot, we recommend that the intent of the Legislature be clarified by the Board through an examination of current custom and practice in the jurisdiction to determine if it is in alignment with the compulsory pilotage laws of the State of California, and if found necessary, promulgate rules to give both pilots and ship masters appropriate guidance in how the Board expects that the compulsory pilotage laws of California would be applied.

In addition, there are risk-mitigation measures that should be considered in light of this event. The first is that the San Francisco Bar Pilots re-examine their cruise ship guidelines to determine if they are still effective risk-mitigation tools in light of the continuing increase in cruise ship size. The second is the cruise ship operators may want to evaluate current customer-driven scheduling practices weighed against the risks posed by timing arrivals at Piers within San Francisco during challenging tidal events. The third is that the pilots should inquire, during the master/pilot information exchange, if there is a difference between normal and emergency modes on the main propulsion, and if so, routinely request emergency operating conditions when approaching or departing from a berth.

IV. IRC RECOMMENDATIONS TO THE BOARD

Based on the above analysis and conclusions the IRC recommends:

- 1. That the Board finds that Captain Slack was negligent by giving up his authority to conn the vessel.
- **2.** That a Letter of Warning be issued to Captain Slack.
- 3. That the Board examine how compulsory pilotage laws are applied on the waters under its jurisdiction and, if necessary, promulgate rules to give both pilots and shipmasters appropriate guidance in how the Board expects that the compulsory pilotage laws of the State of California are to be applied.

Joanne Hayes-White, Chairperson Allen Garfinkle, Executive Director

List of Enclosures (one page each unless otherwise indicated):

- **Attachment 1** Initial notice of the event by the Port Agent
- Attachment 2 FOIA request to the USCG and their acknowledgment of receipt. (2 pages)
- Attachment 3 Copy of CG-2692 submitted by Princess Cruise Line Ltd. (3 pages)
- Attachment 4 Photos of the damage to the port quarter of the RUBY PRINCESS. (2 pages)
- **Attachment 5** Photos of the damage to Pier 27 fendering and stringer, (5 pages)
- Attachment 6 Photos of interior of bridge, (5 pages)
- **Attachment 7** Copy of RUBY PRINCESS Pilot Card (4 pages)
- Attachment 8 Copy of partial Deck Log of RUBY PRINCESS for July 6, 2023 (38 pages)
- Attachment 9 Statements of RUBY PRINCESS crew members. (6 pages)
- Attachment 10 Excerpt of SFBP guidelines specific to cruise ships berthing at Pier 27.
- Attachment 11 Copy of Master/Pilot Relationship by George Quick. (15 pages)
- Attachment 12 Brief by Captain Slack's Attorney, plus Walther Engineering Report. (7 pages)
- Attachment 13 Washington State Concise Explanatory Statement on WAC 363-116-365. (2 pages)
- **Attachment 14** Washington Board of Pilot Commissioners *Open Letter to Shipping Companies and Vessel Masters*.
- **Attachment 15** Copy of *State of Alaska Statutes and Regulations*. (36 pages)
- **Attachment 16** Statement of the RUBY PRINCESS pilot, Captain Slack. (4 pages) (CONFIDENTIAL)
- Attachment 17 Copy of receipts for drug and alcohol testing (3 pages) (CONFIDENTIAL)
- **Attachment 18** Department of Justice memo, *Analysis of Compulsory Pilotage Law.* (5 pages) (CONFIDENTIAL)
- **Attachment 19** Excerpt from RUBY PRINCESS Technical Operation Manual providing engine acceleration ramps for both Normal and Emergency operating modes.

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REPORT OF THE ALLISION OF THE P/V RUBY PRINCESS WITH PIER 27, SAN FRANCISCO, ON JULY 6, 2023 PILOT: CAPTAIN DUSTIN SLACK

ADDENDUM OF CORRECTIONS AND EDITS TO ORIGINAL REPORT

- 1. Page 20, fourth full paragraph, in referring to rate of turn, the original report erroneously used the words "degrees per second" where "degrees per minute" was intended.
- 2. Page 13, first paragraph (partial), there was a misspelling of the word "point" in the sentence: "At that point, only the stern (or about 1/4 of the ship's hull) was in the shadow of the pier."
- 3. Page 13, Section titled "Ship master's use of the main engines", was edited and modified to add clarity and a note was added at the beginning of the section to explain the terminology employed. There was also a transposing of "port" and "starboard" in the original version's first sentence, which has been corrected.
- 4. There were comments received on the initial report that expressed concern that there were no damage amounts cited in the report. While it is acknowledged that there was significant damage to the ship and the pier, Princess Cruise Line also suffered economic damage as a result of the event. Princess Cruise Line has indicated that the damages exceed \$10 million dollars, but no breakdown of that amount has been provided.
- 5. Attachment 12 was missing page 6, which is now included in the current version of the attachments, bringing attachment 12 to seven pages.
- 6. A third safety recommendation was added to the final paragraph of page 22, to include a recommendation to determine if a differential exists between normal and emergency propulsion, and if so, to routinely request emergency mode in the vicinity of the berth.