APPENDIX

APPENDIX A

UNITED STATES COURT OF APPEALS,
THIRD CIRCUIT

No. 16-3470, 16-3552, 16-3867 & 16-3868

IN RE: PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS OWNER OF THE M/T ATHOS I AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE ATHOS I FOR EXONERATION FROM OR LIMITATION OF LIABILITY
(E.D. Pa. No. 2–05–cv–00305)

UNITED STATES OF AMERICA

v.

CITGO ASPHALT REFINING COMPANY;
CITGO PETROLEUM CORPORATION;
CITGO EAST COAST CORPORATION
(E.D. Pa. No. 2–08–cv–02898)

CITGO ASPHALT REFINING COMPANY;
CITGO PETROLEUM CORPORATION;
CITGO EAST COAST OIL CORPORATION,

Appellants in Nos. 16–3470; 16–3552

FRESCATI SHIPPING COMPANY, LTD.;
TSAKOS SHIPPING AND TRADING, S.A.,

Appellants in No. 16–3867

UNITED STATES OF AMERICA,

Appellant in No. 16–3868

Argued November 8, 2017
(Filed: March 29, 2018)

OPINION

Before: SMITH, Chief Judge, HARDIMAN, Circuit Judge, and BRANN, District Judge*

SMITH, Chief Judge.

Table of Contents

---

* The Honorable Matthew W. Brann, United States District Judge for the Middle District of Pennsylvania, sitting by designation.

I. Introduction

After a 1,900–mile journey from Venezuela to Paulsboro, New Jersey, the M/T *Athos I*, a single-hulled oil tanker, had come within 900 feet of its intended berth when it struck an abandoned anchor on the bottom of the Delaware River. The anchor pierced the *Athos I*'s hull, causing approximately 264,000 gallons of crude oil to spill into the river.

The cost of cleaning up the spill was $143 million. We are presented with the question of how to apportion responsibility for that cost between three parties. The first party comprises not only the shipowner, Frescati Shipping Company, Ltd., but also the ship's manager, Tsakos Shipping & Trading, S.A. (collectively, "Frescati"). Frescati, through an intermediary, contracted to deliver crude oil to the second party, which is made up of several affiliated companies—CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (collectively, "CARCO"). The oil shipment was to be delivered to CARCO at its marine terminal in Paulsboro. After the oil spill, Frescati paid for the cleanup effort, and was eventually reimbursed $88 million by the third party to this litigation, the United States, pursuant to the Oil Pollution Act (OPA) of 1990, 33 U.S.C. § 2701 *et seq*. Frescati and the United States now seek to recover their cleanup costs from CARCO.

II. Background

a. Facts[1]

The M/T *Athos I* was a single-hulled tanker ship, measuring approximately 748 feet long and 105 feet wide.[2] As owner of the ship, Frescati chartered it to an intermediary which assigned it to a tanker pool. CARCO sub-chartered the *Athos I* from the tanker pool to deliver a shipment of crude oil from Puerto Miranda, Venezuela, to CARCO's berth in Paulsboro, New Jersey. CARCO was the shipping customer as well as the wharfinger who operated the berth.

The *Athos I*, carrying CARCO's shipment, left Venezuela in mid-November 2004 under the command of the ship's master, Captain Iosif Markoutsis. CARCO had instructed the *Athos I* to load to a draft[3] of 37 feet or less in Venezuela, and provided a warranty that the ship would be able to safely reach the berth in Paulsboro as long as it arrived with a draft of 37 feet or less. When the *Athos I* left Venezuela, it had a draft of 36' 6". Over the course of the *Athos I*'s journey, the ship burned fuel and the crew consumed fresh water. As the ship grew lighter, it rode higher on the water. By the time it reached the entrance to the Delaware

---

[1] The facts are undisputed unless otherwise noted.

[2] Single-hulled tanker ships drew the attention of regulators and the public in the wake of the 1989 *Exxon Valdez* oil spill off the Alaskan coast; the *Exxon Valdez*, like the *Athos I*, was a single-hulled tanker. Single-hulled ships were initially subjected to extra regulation, *see, e.g.*, 33 C.F.R. § 157.455, but have since been phased out of operation in the United States in favor of double-hulled ships. *See* 46 U.S.C. § 3703a.

[3] A ship's draft is the measurement from the water line to the bottom of the ship's hull, known as the keel. As a ship loads cargo, it becomes heavier and sits lower in the water. Its draft thereby increases.

Bay, the *Athos I* was drawing 36' 4". Because the fuel and fresh water were consumed from tanks located in the stern, or rear, of the ship, the *Athos I* was no longer sailing at an even keel; it was "trimmed by the bow," meaning that the bow, or front of the ship, was deeper in the water than the ship's stern. To return the ship to an even keel, the *Athos I* took on approximately 510 metric tons of ballast to tanks in the rear of the ship. Although the parties dispute how much the *Athos I* was drawing as it approached CARCO's berth, the District Court found that the added ballast brought the ship's draft to 36' 7".

The *Athos I* reached the entrance to the Delaware Bay without incident on November 26th. All vessels traveling north from the Delaware Bay to the Delaware River are required to use a Delaware River Pilot to navigate the waters. At the appropriate time, a local river pilot, Captain Howard Teal, Jr. boarded the ship and guided it up the Delaware River until it reached a section of the river near CARCO's berth. At that point, a local docking pilot, Captain Joseph Bethel, replaced Captain Teal and began to navigate the ship to its berth at Paulsboro. Captains Teal and Bethel both engaged Captain Markoutsis in conversations about the *Athos I*, its passage from the Delaware Bay to the Paulsboro berth, water depth, underkeel clearance, and other local conditions. The substance and sufficiency of those conversations are disputed by the parties.

CARCO's berth is on the New Jersey side of the Delaware River, directly across from Philadelphia International Airport. To reach the berth from the main river channel, ships must pass through an anchorage immediately adjacent to the berth. The anchorage, known as Federal Anchorage Number 9 or the Mantua

Creek Anchorage, is a federally-designated section of the river in which ships may anchor; it is periodically surveyed for depth and dredged by the Army Corps of Engineers, as Corps resources allow. No government agency is responsible for preemptively searching for unknown obstructions to navigation in the anchorage, although the Coast Guard, the National Oceanic and Atmospheric Administration (NOAA), and the Corps of Engineers work together to remove or mark obstructions when they are discovered. Anyone who wishes to search for obstructions in the anchorage may do so, but anyone wishing to dredge in the anchorage requires a permit from the Corps of Engineers.

It was in this anchorage on November 26, 2004, at 9:02 p.m., that the allision occurred.[4] The *Athos I* was only 900 feet—not much more than the ship's length—from CARCO's berth. The ship was "just about dead in the water" as Captain Bethel slowly positioned it to dock. Suddenly, the ship began to list and oil appeared in the river. At the time of the allision, the ship was in the middle of a 180° rotation, guided by tugboats, and moving astern and to port (backwards and to the ship's left). The path taken by the *Athos I* through the anchorage passed, at its shallowest point, over a 38–foot shoal. Most of the anchorage was deeper, and the depth of the river at the site of the allision was at least 41.65 feet at the time.

Captain Bethel immediately called the Coast Guard to alert them to the spill, while Captain Markoutsis rushed to the engine room and transferred oil from the breached cargo tank into another tank. The crew of the

---

[4] An allision is "[t]he contact of a vessel with a stationary object such as an anchored vessel or a pier." *Allision*, BLACK'S LAW DICTIONARY (10th ed. 2014).

Athos I was eventually able to stop the leak, but not before 264,321 gallons of crude oil had spilled into the Delaware River.

The cleanup effort began almost immediately. Although it was ultimately successful, it took months to complete and the efforts of thousands of workers at a cost of $143 million. The cause of the allision was not discovered until more than a month later, when an abandoned anchor was discovered on the riverbed. The search for the obstruction that caused the allision proved difficult. An experienced sonar operator using side-scan sonar conducted the first search shortly after the allision, but did not recognize the anchor.[5] A second search by the same operator, conducted several weeks later, eventually discovered the anchor with the use of side-scan sonar in combination with divers and magnetometers. The anchor weighed approximately nine tons and was 6' 8" long, 7' 3" wide, and 4' 6" high. It has since been removed from the river.

The parties dispute the positioning of the anchor at the time of the allision. An anchor like the one that punctured the *Athos I* has two stable positions. It can sit at rest in the "flukes-up" or "flukes-down" position. A flukes-up anchor stands almost upright on its crown,

---

[5] Side-scan sonar is used to locate objects on the sea floor and works like a camera, but using sound instead of light to form an image. Single-beam sonar, by contrast, uses sound to measure the depth along a single line traced by a sounding mechanism known as a towpath. If an obstruction is not located along the towpath, it would not be detected, and even if the towpath crossed an obstruction, the data would simply show a depth change rather than the obstruction itself. Before the allision, CARCO used single-beam sonar to survey its berthing area and a small portion of the anchorage. The government typically used single-beam sonar when it surveyed the anchorage for depth and dredging purposes.

with the flukes pointed upward at a 65° angle, while a flukes-down anchor has essentially tipped over, with both the crown and flukes of the anchor lying horizontally on the riverbed. In the flukes-up position, the anchor sticks up approximately seven feet above the riverbed, but in the flukes-down position, it rises only about 3'5" above the riverbed. The District Court found that the anchor was flukes-up at the time of the allision, but CARCO asserts that the anchor was flukes-down, pointing to side-scan sonar data gathered as part of a geophysical study of the Delaware River that showed the anchor was flukes-down in 2001, three years before the allision.[6] The anchor was also flukes-down when it was discovered after the allision. Between 2001 and the allision in 2004, 241 vessels went to CARCO's Paulsboro berth, and many others have anchored in the anchorage over the years. The District Court theorized that one of those anchored ships could have dragged its own anchor chain along the riverbed, catching on the abandoned anchor and shifting its position. The court ultimately concluded that although the actual cause of the anchor's movement would never be known, at some point between the geophysical study in 2001 and the allision in 2004, the anchor shifted from flukes-down to flukes-up. A flukes-down anchor would not have allided with the *Athos I* if the *Athos I*'s draft was less than 37 feet; a flukes-up anchor would have.

Now, more than thirteen years after the allision, the *Athos I* has been scrapped, the anchor removed from

---

[6] The anchor was identified in the geophysical study data only after the allision occurred. The parties agree that in 2001, the anchor was flukes-down, and that no one was aware of the anchor's existence before the allision—except, perhaps, the still-unidentified owner who abandoned it.

the river, and the oil spill cleaned up. What remains is this case for apportionment of cleanup costs.

b. Procedural History

This case, like the *Athos I*, has been on a long journey. Over the past thirteen years, the matter has been to trial before two different judges and heard on appeal before two separate panels of this Court. We briefly summarize that history.

Litigation began shortly after the allision in January, 2005, when Frescati filed a "Petition for Exoneration from or Limitation of Liability." CARCO and others filed claims for damages associated with the spill. Frescati then filed a counterclaim against CARCO for its damages. The United States eventually reimbursed Frescati for some of its cleanup expenses pursuant to the OPA, and filed suit against CARCO as a partial subrogee to some of Frescati's claims. The claims of Frescati and the United States against CARCO were consolidated with CARCO's counterclaims and defenses, forming the litigation as it exists today.

The case was first tried in a forty-one-day bench trial before the Honorable John P. Fullam. Judge Fullam found that CARCO was not liable for the casualty in contract, tort, or otherwise; Frescati and the United States appealed. On appeal, we affirmed in part, vacated in part, and remanded the case because the District Court had failed to make appropriate findings of fact and conclusions of law as required by Fed. R. Civ. P. 52(a)(1). *In re Frescati*, 718 F.3d 184, 189, 196–97 (3d Cir. 2013).

We determined, among other things, that Frescati was a third-party beneficiary of CARCO's safe berth warranty, and that the allision occurred in the

approach to CARCO's terminal, meaning that CARCO had an unspecified duty of care to Frescati in tort. We remanded for the District Court to determine whether Frescati met the conditions for the safe berth warranty to apply. We also asked the District Court, if necessary, to determine the appropriate duty of care CARCO owed Frescati and whether CARCO breached that duty. 718 F.3d at 214–15.

Judge Fullam retired before the case was remanded. Upon its return to the District Court, the case was assigned to the Honorable Joel H. Slomsky as a successor judge pursuant to Fed. R. Civ. P. 63. Under the terms of that rule, Judge Slomsky certified his familiarity with the record and recalled more than twenty witnesses over the course of a thirty-one-day proceeding.

The District Court held that CARCO was liable to Frescati, and the United States as Frescati's subrogee, for breach of contract. CARCO's contract included a provision known as a safe berth warranty, which, for purposes of this appeal, warrantied that CARCO's berth would be safe for the *Athos I* as long as the ship had a draft of 37 feet or less and Frescati did not cause the allision through bad navigation or negligent seamanship. The District Court concluded that CARCO breached the warranty because the *Athos I* had a draft of 36' 7" at the time of the allision, exercised good navigation and seamanship, and yet still hit an anchor within the geographic area covered by the warranty. On appeal, CARCO argues that the *Athos I* had a draft much deeper than the warrantied depth of 37 feet, and that Frescati demonstrated negligent seamanship by violating several federal maritime regulations relating to underkeel clearance and safe navigation.

The District Court also found CARCO liable in tort to Frescati,[7] concluding that CARCO had a duty, as operator of the berth, to search for obstructions in the approach to its berth. Specifically, the District Court concluded that CARCO had a duty to use side-scan sonar to search for unknown obstructions to navigation in the approach to its berth, and to remove any such obstructions or warn invited ships—like the *Athos I*—of their presence. Because CARCO had not taken any action to search for obstructions, the District Court held CARCO liable in tort—for the same amount for which it was liable in contract. The District Court's contract and tort holdings independently support the judgment for Frescati.

CARCO, in a motion for partial summary judgment before the District Court, asked that its liability, like Frescati's, be limited under the OPA. Because CARCO did not raise the defense until after the first trial and appeal, almost a decade into this litigation, the District Court held that the defense was waived, and in the alternative, that it failed on the merits.

The District Court did, however, partially credit CARCO's equitable recoupment defense against the United States. CARCO argued that the conduct of three federal agencies—the Coast Guard, NOAA, and the Army Corps of Engineers—misled CARCO into believing that the United States was maintaining the anchorage free of obstructions. In addition, CARCO argued that equity requires the United States to bear the cost of the cleanup rather than CARCO. The District Court ultimately reduced the United States'

---

[7] The United States is not a party to the tort claim, pursuant to a partial settlement agreement it reached with CARCO in 2009.

recovery against CARCO by 50%, rather than acceding to CARCO's request to eliminate its liability entirely.

Finally, the District Court held that Frescati was entitled to prejudgment interest at the federal post-judgment rate rather than the higher U.S. prime rate requested by Frescati.

The District Court ultimately awarded Frescati $55,497,375.95[8] on the claims of breach of contract and negligence, plus prejudgment interest of $16,010,773.75, for a total judgment of $71,508,149.70. The United States, after the court's 50% reduction, was awarded $43,994,578.66 on its subrogated breach of contract claim, with prejudgment interest of $4,620,159.98, for a total judgment of $48,614,738.64.

All three parties now appeal. We will affirm the District Court's judgment in favor of Frescati on the breach of contract claim and the prejudgment interest award, as well as the District Court's denial of CARCO's motion for partial summary judgment on its limitation of liability defense. We will vacate the District Court's judgment in favor of Frescati on the negligence claim. We will affirm in part the District Court's judgment in favor of the United States with respect to CARCO's

---

[8] Frescati's liability under the OPA for the cost of cleaning up the spill was limited to approximately $45 million. The United States reimbursed it for the remaining $88 million of its qualifying cleanup expenses. In addition to the $45 million in OPA damages, Frescati also incurred roughly $10 million in damages that fell outside the scope of the OPA's liability cap—third-party claims; cleanup expenses for recreational boats; the cost of removing the anchor and the pump casing from the riverbed; a settlement with a nearby nuclear power plant that had to shut down; unrepaired hull damage to the *Athos I*, and other miscellaneous expenses. Frescati's contract recovery of $55 million was based on both its OPA and non-OPA damages.

liability on the subrogated breach of contract claim, but because CARCO's equitable recoupment defense fails, we will reverse and remand for further proceedings to recalculate damages and prejudgment interest.

III. Jurisdiction and Standard of Review

The District Court had admiralty jurisdiction pursuant to 28 U.S.C. § 1333(1). We have jurisdiction over this appeal under 28 U.S.C. § 1291.

"On appeal from a bench trial, we review a district court's findings of facts for clear error and exercise plenary review over conclusions of law." *Norfolk S. Ry. Co. v. Pittsburgh & W. Va. R.R.*, 870 F.3d 244, 253 (3d Cir. 2017). "A finding of fact is clearly erroneous when it is completely devoid of minimum evidentiary support displaying some hue of credibility or bears no rational relationship to the supportive evidentiary data." *VICI Racing, LLC v. T-Mobile USA, Inc.*, 763 F.3d 273, 283 (3d Cir. 2014); *In re Frescati*, 718 F.3d at 196.

IV. The Safe Berth Warranty

CARCO promised that the *Athos I* would be directed to a location "she may safely get (always afloat)," a promise known as a safe port or safe berth warranty. JA at 1211. Such a promise provides, among other things, "protection against damages to a ship incurred in an unsafe port to which the warranty applies." *In re Frescati*, 718 F.3d at 197.

> A port is deemed safe where the particular chartered vessel can proceed to it, use it, and depart from it without, in the absence of abnormal weather or other occurrences, being exposed to dangers which cannot be avoided by good navigation and seamanship. Whether a port is safe refers

> to the particular ship at issue, and goes beyond the immediate area of the port itself to the adjacent areas the vessel must traverse to either enter or leave. In other words, a port is unsafe—and in violation of the safe berth warranty—where the named ship cannot reach it without harm (absent abnormal conditions or those not avoidable by adequate navigation and seamanship).

Id. at 200 (quotations and citations omitted). "[T]he safe berth warranty is an express assurance made without regard to the amount of diligence taken by the charterer." *Id.* at 203. For our purposes, a safe berth warranty promises that a ship with a draft less than the warrantied depth is covered by the warranty in the absence of bad navigation or negligent seamanship.

Our prior opinion called for the District Court to resolve three issues on remand: the draft limit beyond which the safe berth warranty would not apply; the actual draft of the *Athos I* at the time of the allision; and whether the warranty was negated by bad navigation or negligent seamanship. *Id.* at 204–05, 204 n.20.

As an initial matter, the District Court found that the safe berth warranty applied to ships drawing less than 37 feet, a finding neither party challenges on appeal. The remaining issues, then, are whether the *Athos I* had a draft of less than 37 feet, and if it did, whether bad navigation or negligent seamanship by Frescati negated the warranty.

a. The Draft of the *Athos I*

The District Court found that the *Athos I* had a draft of 36' 7" at the time of the allision. The court based this finding on the undisputed draft of the *Athos I* at the time of its departure from Puerto Miranda—36' 6"—as

well as expert testimony regarding the condition of the ship and its estimated draft at Paulsboro.[9]

CARCO challenges the District Court's determination of the *Athos I*'s draft, arguing that the District Court improperly based its finding on a speculative assumption about the orientation of the abandoned anchor. Specifically, CARCO disputes the District Court's finding that the anchor shifted from a flukes-down position to a flukes-up position sometime between 2001 and the allision in 2004, a shift that caused the anchor to intrude within the 37–foot safe depth promised by CARCO. CARCO argues that the District Court failed to make a finding as to the precise mechanism by which the anchor shifted from flukes-down to flukes-up. The anchor's orientation matters; if the accident occurred while the anchor was flukes-down, the *Athos I* necessarily would have had a draft that exceeded the scope of CARCO's warranty.[10]

---

[9] Frescati's expert, Anthony Bowman, developed the Seamaster software program, which allows him to enter the measurements of a ship—including the weight, dimensions, and strength of all its constituent parts, such as the hull, cargo, and supplies—and calculate, among other things, a ship's draft. Having considered the ship's records, information about the ballast tanks, and his own software, Bowman testified that at the time of the allision, the *Athos I* had a draft of 36' 7". The District Court credited his testimony.

[10] The District Court made undisputed findings of fact as to the height of the anchor in a flukes-down position (41 inches or 3.42 feet) and the depth of the river at the time and location of the allision (41.65 feet). Assuming for the moment that the anchor was flukes-down, as CARCO argues, the allision would not have occurred unless the *Athos I* had a draft of at least 38.23 feet, or just under 38' 3", significantly in excess of the warrantied draft of 37 feet.

Broadly speaking, the District Court made three findings of fact related to the anchor's orientation. First, the court and parties agree that, three years before the allision, the anchor was in the flukes-down position.[11] Second, the District Court found that at some point before the allision, the anchor shifted into the flukes-up position. Finally, after the allision, the anchor was eventually discovered back in the flukes-down position—perhaps unsurprising, given the force of its encounter with the *Athos I*.

CARCO attacks the second finding, arguing that there was insufficient evidence in the record to support the District Court's suggestion that a "sweeping anchor chain" could have caught the anchor and shifted it into the flukes-up position.[12]

---

[11] Experts for both sides were able to identify the flukes-down anchor in a sonar scan performed in 2001 as part of an independent geophysical study.

[12] Ships at anchor move with the tide, back and forth as the tide comes in and goes out. The anchor chain drags or "sweeps" across the riverbed as the ship floats, potentially shifting the position of objects on the riverbed, and leaving scour marks on the riverbed. Anchor chains also move along the river bottom when the anchor is pulled back onto the ship. CARCO, for its part, characterizes the idea that an anchor chain might have moved the abandoned anchor as "fantastical," "inexplicabl[e]," an "astonishing assertion," "facially implausible," "pure and wild speculation," "pure speculation," "conjecture," "speculative and unsupported," and, once again, "implausible." CARCO Opening Br. 4, 53–55; CARCO Reply Br. 32. The District Court pointed out that scour marks were found on the river bottom near the site of the allision, but ultimately decided only that the anchor was in the flukes-up position at the time of the allision. JA at 78 ("Although the actual cause of the anchor's movement to a 'flukes-up' position will never be known, the Court finds that at some point after December 2001, this movement occurred and the

We find CARCO's arguments unconvincing, primarily because the "sweeping anchor chain" theory, however plausible or implausible, is not necessary to sustain the District Court's finding. Let us imagine a piece of furniture (a sofa, perhaps, or an armchair) that has fallen off the back of a pickup truck onto a roadway. One driver reports seeing the furniture in the right lane. A while later, a second driver hits the furniture. The second driver asserts that the furniture was in the left lane when he struck it, and provides evidence to that effect. A highway patrolman shows up later and finds the furniture once again in the right lane. A court may find, without committing error, that the furniture was in the right lane and moved to the left without making a specific finding as to the precise method by which the furniture moved from one lane to the other. Perhaps another driver hit it; perhaps a pedestrian tried to move it out of the road but did not finish the job. When credible evidence shows that the second driver was driving in the left lane, a finding to that effect does not become error because the furniture was in the right lane when the first driver passed, or changed position after—or because of—the encounter with the second driver.

Here, the record contains sufficient evidence to support the finding that the anchor was, in fact, flukes-up at the time of the allision. How exactly the anchor changed position does not impact our sufficiency determination. As an initial matter, the movement of the *Athos I* at the time of the allision and the damage to its hull are sufficient to show that the anchor was flukes-up. And substantial evidence unrelated to the anchor showed that the *Athos I* was

---

anchor was positioned in a 'flukes-up' orientation when it allided with the *Athos I*.").

drawing 36' 7" at the time of the allision—a draft at which the allision would not have occurred had the anchor been flukes-down. That is enough to support the District Court's finding that the anchor moved from flukes-down to flukes-up.

The movement of the ship and damage to its hull shows that the anchor must have been flukes-up. The District Court found that the *Athos I* was moving astern and to port at the time of the allision, a finding CARCO does not challenge. Based on that movement, the scoring left by the anchor on the hull, the size and shape of the two holes the anchor created, and the damage to the anchor itself also supported the District Court's finding that the anchor must have been flukes-up at the time of the allision. CARCO's own expert witness, on cross-examination, testified that if the *Athos I* were moving astern and to port, the damage to the *Athos I*'s hull would necessarily require a flukes-up anchor.[13] JA at 1021–22.

Nor did the District Court base its finding of a 36' 7" draft on the flukes-up anchor alone. While CARCO argues that the anchor was flukes-down, and that therefore the *Athos I* must have had a deep draft, the reverse is also true. If the *Athos I* had a draft of 36' 7", then the anchor must have been flukes-up. The District Court credited expert testimony that the ship had a 36' 7" draft. The ballast tanks contained no extra liquid that would have affected the ship's draft, a finding that CARCO does not challenge on appeal. The ship left Puerto Miranda with a draft of 36' 6". Visual observation of the ship by experts and crewmembers immediately after the allision suggested the *Athos I*

[13] CARCO's theory at trial, abandoned on appeal, was that the ship was *not* moving astern and to port.

had a 36' 7" draft before the allision. And, on appeal, CARCO fails to offer any suggestion as to how the draft might have increased by more than a foot without the crew's knowledge or any evidence that the ballast tanks were faulty.[14]

We conclude there was no clear error in the District Court's determination that the *Athos I* had a draft of 36' 7" at the time of the allision. The ship was, therefore, within the scope of CARCO's safe berth warranty.

b. Frescati's Seamanship

A safe berth warranty applies only in the absence of bad navigation or negligent seamanship. CARCO argues on appeal that Frescati violated several maritime regulations related to the operation of single-hulled tankers, and that those regulatory violations serve as sufficient proof of negligent seamanship. The District Court concluded that Frescati did not violate any relevant regulations, and enforced the safe berth warranty. We agree with the District Court that Frescati did not violate any relevant regulations.

On appeal, CARCO argues specifically that Frescati violated two federal regulations: 33 C.F.R. § 157.455 and 33 C.F.R. § 164.11. Section 157.455 applied to certain single-hulled tankers during the period they were being phased out of operation, while § 164.11

---

[14] The *Athos I* passed safely over a 38–foot shoal less than fifteen minutes before the allision. JA at 203. It seems that if the *Athos I* had a draft deep enough to hit the flukes-down anchor (a minimum of 38.23 feet, *see* supra note 10), it would have encountered the 38–foot shoal before it ever encountered the anchor. A flukes-down anchor would have been deeper than the 38–foot shoal even at the anchor's shallowest point. JA at 77, 78, 85.

applies to certain ships above 1,600 gross tons. 33 C.F.R. §§ 157.400, 164.01. Both sections applied to the *Athos I* at the time of the allision.

Section 157.455 requires the owner or operator of a single-hulled tanker to provide certain written guidance to the ship's master for purposes of estimating the tanker's underkeel clearance.[15] 33 C.F.R. § 157.455(a). It also requires the master to use that guidance to plan the ship's passage, estimate the underkeel clearance,

---

[15] 33 C.F.R. § 157.455(a)–(b) reads:

> (a) The owner or operator of a tankship, that is not fitted with a double bottom that covers the entire cargo tank length, shall provide the tankship master with written under-keel clearance guidance that includes—
>
> (1) Factors to consider when calculating the ship's deepest navigational draft;
>
> (2) Factors to consider when calculating the anticipated controlling depth;
>
> (3) Consideration of weather or environmental conditions; and
>
> (4) Conditions which mandate when the tankship owner or operator shall be contacted prior to port entry or getting underway; if no such conditions exist, the guidance must contain a statement to that effect.
>
> (b) Prior to entering the port or place of destination and prior to getting underway, the master of a tankship that is not fitted with the double bottom that covers the entire cargo tank length shall plan the ship's passage using guidance issued under paragraph (a) of this section and estimate the anticipated under-keel clearance. The tankship master and the pilot shall discuss the ship's planned transit including the anticipated under-keel clearance. An entry must be made in the tankship's official log or in other onboard documentation reflecting discussion of the ship's anticipated passage.

33 C.F.R. § 157.455(a)–(b).

consult with the relevant pilots who will guide the ship to its berth, and make a log entry reflecting discussion of the ship's underkeel clearance with the pilot. 33 C.F.R. § 157.455(b). Section 164.11 mandates that the master ensure the pilot is informed of certain information, including the ship's draft and tidal conditions.[16] 33 C.F.R. § 164.11.

CARCO argues that Frescati was responsible for three specific violations, each of which allegedly caused the allision. First, CARCO claims that Frescati failed to adequately plan the ship's passage. Second, CARCO claims that Frescati failed to estimate the *Athos I*'s underkeel clearance. Finally, CARCO claims that Frescati failed to ensure that an adequate master-pilot exchange occurred, and made no log entry that would reflect such an exchange.

With respect to planning the passage, CARCO argues that 33 C.F.R. § 157.455 requires a written voyage plan. Frescati allegedly violated that requirement by failing to finalize an official voyage plan

---

[16] 33 C.F.R. § 164.11 reads:

> The owner, master, or person in charge of each vessel underway shall ensure that:
>
> . . . .
>
> (k) If a pilot other than a member of the vessel's crew is employed, the pilot is informed of the draft, maneuvering characteristics, and peculiarities of the vessel and of any abnormal circumstances on the vessel that may affect its safe navigation.
>
> . . .
>
> (n) Tidal state for the area to be transited is known by the person directing movement of the vessel . . . .

33 C.F.R. § 164.11.

document using the Tsakos Voyage Plan form contained in the Tsakos Vessel Operation Procedures Manual. *See* JA at 1178–85.

The text of § 157.455 undermines CARCO's argument. The regulation does not itself require a *written* voyage plan. Paragraph (a) of the regulation requires that Frescati create "written under-keel clearance guidance," which must contain "factors to consider" when evaluating draft, water depth, and weather conditions. Paragraph (b) requires that the master plan the ship's passage using those "factors to consider" in the guidance required by paragraph (a). Nowhere does this regulation require that the master's passage plan be in writing; the only reference to a writing in paragraph (b) comes in the requirement that some official log of the master-pilot conference be recorded. CARCO conflates the passage plan requirement of paragraph (b)—to consider certain relevant factors when planning—with the "Voyage Plan" form contained in Frescati's Vessel Operation Procedures Manual. *See* JA at 1180. The Voyage Plan form focuses on plotting the course of the vessel from berth to berth; paragraphs (a) and (b) of the regulation, on the other hand, serve to create a reference list for the ship's master of relevant factors to consider when estimating underkeel clearance.

Frescati satisfied the requirements of paragraph (a) by providing written underkeel clearance guidance in Section 3.4[17] of its Vessel Operation Procedures Manual. JA at 1191. The Manual appropriately lists factors to

[17] The Vessel Operation Procedures Manual appears to contain a typographical error listing the appropriate section as 2.4 rather than 3.4, as it appears in the Table of Contents. *See* JA at 1189, 1191.

consider, including "sea state and swell," "tidal conditions," and "the effect of squat,"[18] and suggests to the master that 10% or 5% underkeel clearance margins would typically be appropriate. *Id.*

Furthermore, Frescati satisfied the planning requirement of paragraph (b) because the *Athos I*'s master, Captain Markoutsis, considered factors like the sea state, tidal condition, and the effect of squat. Even though CARCO provided a safe berth warranty for a draft up to 37 feet, Captain Markoutsis loaded the ship to only 36' 6" because he was "afraid" of a 37–foot draft, and eventually entered the Delaware River with a draft of 36' 7". *In re Frescati*, 718 F.3d at 204. The charts in the *Athos I* were marked with the 38–foot controlling draft in the anchorage. JA at 992. Captain Teal, the river pilot, testified that he and Captain Markoutsis discussed the draft, wind, visibility, and tides. We agree with the District Court that Frescati fully complied with the planning requirement of § 157.455(b)—that is, to use the factors listed in the Vessel Operating Procedures Manual when planning the passage.

CARCO's second argument is that Frescati violated § 157.455(b) because Captain Markoutsis failed to estimate the *Athos I*'s underkeel clearance. The District Court did not err in finding that Captain Markoutsis had estimated underkeel clearance. Captain Markoutsis

---

[18] "Squat is a hydrodynamic phenomenon, which occurs when a ship is moving through the waters. As a ship moves forward, it displaces a volume of water. The displaced water rushes under the keel of the ship and creates a low pressure area causing the ship to sink down toward the riverbed. The faster a ship is moving, the more the ship will sink down towards the riverbed. This process causes a ship to be closer to the riverbed by increasing a vessel's draft." JA at 70 (citations omitted).

discussed the draft, tidal conditions, and anticipated underkeel clearance with Captain Teal. JA at 801–802. They estimated that the ship would have at least 1.5 meters' clearance—nearly five feet. *Id.* Captains Bethel and Markoutsis also discussed the draft and believed they would have sufficient clearance. JA at 833, 837. CARCO highlights that there is no evidence of *written* underkeel clearance estimates, but § 157.455 does not require written estimates.

Finally, CARCO argues that the master-pilot exchange required by § 157.455 and § 164.11 was inadequate. In general, master-pilot exchanges are intended to allow the master to share the navigational characteristics of his ship with the pilot who will be guiding it, and for the pilot to share local conditions such as weather, depth, and the tide with the master. Section 157.455(b) requires that "[t]he tankship master and the pilot shall discuss the ship's planned transit including the anticipated under-keel clearance. An entry must be made in the tankship's official log or in other onboard documentation reflecting discussion of the ship's anticipated passage." 33 C.F.R. § 157.455(b). Section 164.11 requires that the master ensure that

> [i]f a pilot other than a member of the vessel's crew is employed, the pilot is informed of the draft, maneuvering characteristics, and peculiarities of the vessel and of any abnormal circumstances on the vessel that may affect its safe navigation. . . . [and that the] [t]idal state for the area to be transited is known by the person directing movement of the vessel.

33 C.F.R. § 164.11(k), (n).

Captain Markoutsis was responsible for discussing the draft, underkeel clearance, maneuvering characteristics, and tidal state with the two pilots who guided the *Athos I*. The testimony shows that Captain Markoutsis did so, discussing all the relevant information with both pilots, and that he recorded the conversation on the signed Pilot Card, which served as sufficient documentation of the master-pilot conference. The District Court additionally credited Frescati's expert witness, Captain Betz, who observed both Captain Teal and Captain Bethel testify. Captain Betz opined that the master-pilot exchanges were adequate and customary in all respects.

Frescati operated the *Athos I* with neither bad navigation nor negligent seamanship. Nevertheless, the allision occurred. The District Court did not err in concluding that the allision resulted from a breach of CARCO's safe berth warranty.

V. Wharfinger Negligence

CARCO wore two hats in its dealings with Frescati, as a shipping customer and as a wharfinger. These dual roles exposed CARCO to liability under two independent legal theories. CARCO's first role, as a shipping customer that contracted with Frescati for delivery of a shipment of crude oil, resulted in CARCO's liability under the contractual safe berth warranty, discussed above. The second, as the wharfinger for the Paulsboro berth that was the *Athos I*'s intended destination, resulted in the District Court's finding of negligence and CARCO's corresponding liability in tort.

Both theories of liability independently support the District Court's judgment against CARCO. As a result, our decision to affirm the judgment based on CARCO's

contractual liability means that we are not required to delve into the District Court's tort analysis. However, having reviewed that analysis, we harbor serious doubts about the appropriateness of the court's proposed duty of care. For that reason, we are compelled to make clear that we will affirm the District Court's judgment based solely on CARCO's breach of contract.

A wharfinger's duty is more limited than that of a shipping customer who has provided a safe berth warranty. As we previously wrote:

> In the tort context, . . . a wharfinger is not a guarantor of a visiting ship's safety, but is bound to use reasonable diligence in ascertaining whether the berths themselves and the approaches to them are in an ordinary condition of safety for vessels coming to and lying at the wharf. This is not an unconstrained mandate to ensure safe surroundings or warn of hazards merely in the vicinity. Instead, a visiting ship may only expect that the owner of a wharf has afforded it a safe approach. In being invited to dock at a particular port, a vessel should be able to enter, use and exit a wharfinger's dock facilities without being exposed to dangers that cannot be avoided by reasonably prudent navigation and seamanship.

In re Frescati, 718 F.3d at 207 (quotations and citations omitted). In short, and as a general matter, a wharfinger's duty is to use reasonable diligence to ascertain whether the approach to its berth is safe for an invited vessel.[19]

---

[19] We previously determined that the allision occurred in the approach to CARCO's berth—the geographic area within which a wharfinger's duty exists—and as a result, CARCO had a duty to

We remanded for the District Court to determine in the first instance what reasonable diligence required of CARCO under the circumstances of this case, and whether CARCO breached that standard. *Id.* On remand, the District Court concluded that

> a reasonably prudent terminal operator should periodically scan the approach to its dock for hazards to navigation as long as ships are being invited there. In this case, the standard would require that side-scan sonar be used to search the approach for obstructions that are potential hazards to navigation. If an obstruction is located, a terminal operator is then required to remove it, and if the terminal operator cannot remove it, notice of the hazard must be given to incoming ships by marking it as a hazard and/or warning ships of its presence.

JA at 132. Because CARCO did nothing to look for obstructions, the District Court held that it had breached its duty.

The District Court chose its standard by determining what the "demands of reasonableness and prudence" required. JA at 129. Citing Judge Learned Hand's famous formula from *United States v. Carroll Towing*, 159 F.2d 169 (2d Cir. 1947), the court concluded that the precaution of a preemptive side-scan sonar search would be less burdensome than the probability of an allision multiplied by the serious harm caused by a spill of toxic substances like crude oil.

We have doubts about the District Court's balancing of the cost of preventative measures on one hand and

---

use reasonable diligence to provide the *Athos I* with a safe approach. *In re Frescati*, 718 F.3d at 211.

the cost of potential accidents on the other. The court found that a general scan of the approach to CARCO's berth and the berth itself would have cost between $7,500 and $11,000, and would have prevented the allision. Yet in this very case, the targeted scan of the area where the allision occurred, conducted only eight days after the allision, did not identify the anchor. The first set of 93 side-scan sonar passes conducted by Frescati's expert, John Fish—at a cost of $38,577—identified a pump casing on the river bottom. The anchor, however, went unrecognized.[20] We do not share the District Court's confidence that a general $11,000 scan of the approach and berth would have "recognized" the anchor with sufficient clarity to prevent the allision, given that a targeted $38,000 scan for obstructions failed to do so.

Beyond the questionable utility of side-scan sonar as applied to this case, we doubt whether imposing a specific duty to require side-scan sonar would be useful for wharfingers in the ordinary course of their business. Single-hulled vessels like the *Athos I* present unique risks, and have been treated with special care by regulators. *See, e.g.*, 33 C.F.R. § 157.455. Today, as a result of those unique risks, such vessels are no longer permitted to operate in the waters of the United States. *See* 46 U.S.C. § 3703a (banning single-hulled oil tankers in the waters of the United States after January 1, 2015). Furthermore, side-scan sonar is not the only method available to detect and recognize obstructions, as the District Court pointed out.[21] Even

---

[20] Fish testified that the side-scan sonar equipment "detected" the anchor, but neither he nor anyone else "recognized" it until after the second set of scans were taken. JA at 927.

[21] The court determined that CARCO should have used side-scan sonar to search for obstructions, but seemed willing to accept

if we were to accept the court's balancing of cost, risk, and the magnitude of the potential harm, the high standard set forth in this case—involving a risky single-hulled vessel—would not necessarily apply to future cases, which will necessarily involve only double-hulled vessels.[22]

We are not unsympathetic to the position in which we placed the District Court by asking it to specify the duty of care at play in this case. The District Court has conscientiously complied. And we stand by our previous holding that CARCO had some duty to use reasonable diligence to provide the *Athos I* with a safe approach to its berth—a duty it may or may not have breached. *In re Frescati*, 718 F.3d at 211. Nevertheless, given CARCO's independent liability in contract and our decision to affirm on that basis, we will once again decline to outline precisely what CARCO's duty of reasonable diligence entailed.

---

that other methods of searching for obstructions might accomplish the same purpose. It noted that "side-scan sonar . . . is not the only method available in the industry to search for hazardous debris. . . . Since the standard of care involves factual issues, the methods may vary when the conditions in the approach to each terminal are examined." JA at 132 n.109.

[22] Indeed, five years after the *Athos I* allision, the Norwegian tanker *SKS Satilla*, carrying nearly 42 million gallons of crude oil, allided with a sunken oil rig in the Gulf of Mexico, sustaining "substantial damage to the port side of her hull." Findings of Fact and Conclusions of Law, *In re Ensco Offshore Co.*, No. 4:09–CV–2838, ECF No. 185 at 3, ¶¶ 6–7 (S.D. Tex. Sept. 30, 2014). But "[b]ecause the SATILLA [was] a double hulled vessel[,] . . . there was no discharge of crude oil." *Id.* at 3, ¶ 9.

VI. Subrogation and Equitable Recoupment

This litigation does not implicate the interests of only Frescati and CARCO. The United States reimbursed Frescati for $88 million in cleanup expenses above the liability limit established by the OPA. Consequently, the United States became subrogated to Frescati's claims, and joined the fray by filing suit against CARCO in 2008.[23]

Frescati initially paid for the oil spill cleanup costs as a "responsible party" under the OPA. *See* 33 U.S.C. § 2702(a). The OPA allows a responsible party like Frescati to limit its liability to a specified sum; any cleanup costs above that amount are reimbursed out of the Oil Spill Liability Trust Fund.[24] *See* 33 U.S.C.

---

[23] The United States and CARCO reached a partial settlement agreement before the first trial. Both the United States and CARCO agreed to forgo any negligence claims they might have had against one another. The parties agreed that the United States would pursue only its contract claim against CARCO. As a result, the United States' judgment against CARCO was based solely on CARCO's contractual liability under the safe berth warranty. CARCO, for its part, reserved in the settlement agreement

> each and every substantive and procedural right available to a defendant . . . including but not limited to the right to raise affirmative defenses under any theory or doctrine of law or equity, the right to assert setoff or recoupment and the right to assert compulsory or non-compulsory counterclaims other than a Claim for Contribution or Indemnity . . . .

JA at 391.

[24] The Oil Spill Liability Trust Fund, administered by the Coast Guard, serves much like insurance for the oil transportation industry. Companies that import oil into the United States pay a per-barrel fee into the Trust Fund. When a tanker vessel spills oil, the OPA assigns liability for the cleanup to a "responsible party"—typically the owner of the vessel from which the oil spilled. The responsible party is liable for all cleanup costs

§ 2704. Under this scheme, Frescati's liability for the cost of the oil spill cleanup was limited to approximately $45 million. The Trust Fund reimbursed Frescati for its remaining cleanup costs, which totaled approximately $88 million. The United States then became statutorily "subrogated to all rights, claims, and causes of action that the claimant [Frescati] has under any other law." 33 U.S.C. § 2715(a). The United States pursued these claims against CARCO as a "person who is liable, pursuant to any law, to the compensated claimant [Frescati] or to the Fund, for the cost or damages for which the compensation was paid." 33 U.S.C. § 2715(c).

Pursuant to the partial settlement agreement, the United States limited itself to the same contractual claims Frescati asserted. Because CARCO was liable to Frescati in contract, it was also liable to the United States for the amount the Trust Fund had reimbursed Frescati: nearly $88 million. But CARCO asserted a defense against the United States it did not assert against Frescati—equitable recoupment—and in response, the District Court reduced the United States' judgment by 50%. Both CARCO and the United States appealed. CARCO argues that the District Court erred by not eliminating the United States'

---

associated with the spill. If the costs exceed a liability cap established by the OPA, the Trust Fund reimburses the responsible party for all expenses above the statutory cap. Liability under the OPA does not preclude a responsible party from bringing any claims it has against a third party under any other law. The United States, to the extent the Trust Fund has reimbursed the responsible party's costs, steps into the shoes of the responsible party as subrogee and may pursue claims against a third party as if it were the responsible party. Any recovery won by the United States is returned to the Trust Fund to cover future oil spill reimbursements.

recovery, while the United States argues that the District Court should have left the contract judgment untouched and denied CARCO any equitable remedy. We conclude that the District Court erred by reducing the United States' judgment by 50%. The United States is entitled to a full recovery.

a. Subrogation and Subrogee-Specific Defenses

As an initial matter, we note that the dispute between CARCO and the United States presents an unusual question about the nature of subrogation. Subrogation itself is not unusual; in general terms, it "simply means substitution of one person for another; that is, one person is allowed to stand in the shoes of another and assert that person's rights against a third party." *US Airways v. McCutchen*, 569 U.S. 88, 97 n.5, 133 S.Ct. 1537, 185 L.Ed.2d 654 (2013). Most often, it arises in the insurance context as a procedural mechanism to allow an insurer (the subrogee) to step into the shoes of its insured (the subrogor) after it has compensated the insured for harm caused by a third party. The subrogee, having stepped into the shoes of the subrogor, is entitled to assert all of the subrogor's rights and claims against the responsible third party. Likewise, the third party—now defending an action brought by the subrogee—is entitled to assert every defense it otherwise could have raised against the subrogor. In that vein, the third party's liability to a subrogee cannot be greater than it would have been to the subrogor. Restatement (Third) of Restitution & Unjust Enrichment § 24.

All that is unexceptional. The unusual question presented here is whether a third party may assert a defense against a subrogee that it could *not* assert against the subrogor. As we discussed above, CARCO is liable to Frescati, the subrogor, in contract.

Consequently, CARCO is liable to the United States, the subrogee, under that very same contract. But CARCO wishes to assert a defense against the United States—namely, that equitable recoupment requires the United States to bear the loss rather than CARCO because of the allegedly misleading conduct of three federal agencies—that it could not assert against Frescati.

The United States makes a related argument. Its position is that the equitable recoupment defense, predicated as it is on the conduct of federal agencies rather than the contractual relationship between Frescati and the United States, violates the statutory subrogation provision of the OPA. Specifically, the United States argues that it is entitled to "all [of Frescati's] rights, claims, and causes of action" under the OPA. 33 U.S.C. § 2715(a). Frescati's contractual right is not limited by CARCO's claims against the Coast Guard, NOAA, and the Army Corps of Engineers; the United States asserting Frescati's contractual right should also not be so limited, and to do otherwise would infringe on the United States' statutory entitlement. When Frescati has the right to a full recovery under its contract, the argument goes, so does the United States.

We agree. CARCO may only assert defenses against the United States' subrogated claims which it could have asserted against Frescati—including any equitable recoupment defense it could have asserted against Frescati. In its capacity as a subrogee, the United States should be subject to the same treatment as Frescati. Just as the United States, as subrogee, may only assert Frescati's claims, CARCO, as defendant, is not entitled to extra defenses because the United States asserts Frescati's claims rather than Frescati

itself. Of course, no party is exempt from the Federal Rules of Civil Procedure. The United States is subject to the ordinary procedural rules governing counterclaims and third-party complaints, and the OPA does not bar CARCO from asserting whatever claims it has against the United States using those recognized procedural mechanisms where appropriate.[25]

In this case, the only claim asserted by the United States is Frescati's contract claim. *In re Frescati*, 718 F.3d at 189; JA at 390. It follows that CARCO's equitable recoupment defense must be directed toward the United States' contract claim. *See* 718 F.3d at 214 (declining to preclude CARCO from raising "equitable defense[s] to the Government's subrogation claims"). If CARCO had other cognizable claims against the three federal agencies involved in regulating the Delaware River and the anchorage, sounding in tort or otherwise, it was free to assert them in a third-party complaint or counterclaim, just as the United States was free to pursue other claims against CARCO.[26] In

---

[25] This issue is complicated by the fact that the specific defense asserted by CARCO, equitable recoupment, is sometimes pleaded as a defense, and sometimes as a counterclaim. We do not mean to imply that CARCO should have pleaded equitable recoupment as a counterclaim rather than a defense. However it is pleaded, "recoupment is in the nature of a defense arising out of some feature of the transaction upon which the plaintiff's action is grounded," and here, the plaintiff's action is grounded in Frescati's contractual right. *Bull v. United States*, 295 U.S. 247, 262, 55 S.Ct. 695, 79 L.Ed. 1421 (1935). To the extent CARCO had cognizable claims against the Coast Guard, NOAA, and the Army Corps of Engineers, it should have asserted those claims directly, rather than as a defense to Frescati's now-subrogated contract claim.

[26] CARCO was also free to waive its claims against the United States, and vice versa. Indeed, both CARCO and the United

that light, we proceed to analyze CARCO's equitable recoupment defense as it applies to the United States' contractual rights.

b. Equitable Recoupment

Equitable recoupment is a "principle that diminishes a party's right to recover a debt to the extent that the party holds money or property of the debtor to which the party has no right."[27] *In re Frescati*, 718 F.3d

---

States waived certain rights in the 2009 partial settlement agreement, including CARCO's waivers of the rights to bring a "Claim for Contribution or Indemnity . . . whether based on principles of common law, contract, quasi-contract or tort," and "demand that the court reduce or offset the damages awarded to the United States . . . based on evidence that the negligence or fault of the United States in failing to detect, mark and/or remove underwater obstructions to navigation . . . caused or contributed to the ATHOS I Incident." JA at 389. At an earlier stage in the litigation, the United States argued that CARCO's equitable recoupment defense amounted to a violation of the settlement agreement. The United States eventually waived that argument by failing to raise it at the first trial, and so we need not consider it today. *In re Frescati*, 718 F.3d at 214.

[27] A classic example of recoupment is a situation in which the statute of limitations is different for two related claims arising out of the same transaction—when, for example, the statute of limitations period during which the United States may file a claim against a taxpayer for underpayment of the income tax is longer than the period during which a taxpayer may file a claim for a refund of overpayment of the estate tax. The taxpayer (in this case, the estate of a decedent) pays the estate tax and final year's income tax. Sometime later, after the statute of limitations has run on the estate tax overpayment but not the income tax underpayment, the government claims the taxpayer owes additional income tax for the taxpayer's final year. Due to the increased income tax liability for the year, the taxpayer now owes less in estate tax—but the statute of limitations has already run, and the taxpayer cannot amend the estate tax return. In an action brought by the government to recover the extra income tax

at 214 n.35. For an equitable recoupment defense to succeed, the defendant must possess a claim against the plaintiff arising from the same transaction or occurrence as the plaintiff's suit, seeking relief of the same kind as that sought by the plaintiff, in an amount no greater than that sought by the plaintiff. *See Livera v. First Nat'l State Bank of New Jersey*, 879 F.2d 1186, 1195 (3d Cir. 1989).

CARCO's equitable recoupment defense faces at least two serious obstacles. As an initial matter, the United States questions whether CARCO possesses a "claim" against it, rather than a generalized request for the court to balance the equities. Second, the United States questions whether CARCO seeks relief of the same kind as the United States. On both points, CARCO fails to meet its burden.

CARCO's claim, such as it is, appears to be that the equities favor CARCO, and require the United States to bear the cost of the spill. CARCO argues that the United States, through the Coast Guard, NOAA, and the Army Corps of Engineers, had responsibility for maintaining the anchorage where the allision occurred free of obstructions. In the alternative, if the agencies were not responsible to preemptively search for obstructions, CARCO argues they should have more explicitly made clear that they were not conducting such searches. CARCO asserts that it reasonably believed, based on the agencies' conduct, that the agencies were maintaining the anchorage free of obstructions.

---

owed, the taxpayer may assert an equitable recoupment defense for the amount of the overpayment of the estate tax, even though the statute of limitations has run and the taxpayer would not otherwise have been able to recover the overpayment. *See generally Bull v. United States*, 295 U.S. 247, 55 S.Ct. 695, 79 L.Ed. 1421 (1935).

Additionally, CARCO argues that equity requires the Oil Spill Liability Trust Fund to bear the cost of the cleanup rather than CARCO.[28]

---

[28] Though it is not necessary to our holding, we note that these equities do not appear to favor CARCO. As to agency regulation and maintenance of the anchorage where the allision occurred, the District Court held that the agencies did not have a duty to maintain the anchorage free of obstructions. The United States does not preemptively search for obstructions in the anchorage, it is not responsible for doing so, and it did not tell CARCO that it would do so. To the extent CARCO believed otherwise, CARCO simply misunderstood the regulatory structure and the responsibilities (and indeed, the capabilities) of the agencies.

Additionally, to the extent—if at all—that the Coast Guard, NOAA, and the Army Corps of Engineers were responsible for the *Athos I* oil spill, reducing the recovery of the United States in this case would not be equitable. Beyond our concerns relating to subrogation (equity would certainly not favor reducing Frescati's recovery under these circumstances), such a decision would impose liability on the Oil Spill Liability Trust Fund, not the responsible agencies. Any recovery based on the United States' subrogated claim flows back to the Trust Fund, out of which the United States originally reimbursed Frescati. 26 U.S.C. § 9509(b)(3). The Trust Fund is not intended (or allowed by statute) to be used as a slush fund to cover the liabilities of federal agencies. *See* 33 U.S.C. § 2712 ("Uses of the Fund").

As a final point, the purpose of the Trust Fund is not to absorb the cost of cleaning up oil spills; indeed, almost the opposite is true. The OPA creates a strict liability regime for responsible parties, while capping that liability at a set amount. But the Trust Fund was not designed to bear those costs indefinitely; the subrogation provision of 33 U.S.C. § 2715 allows the United States, on behalf of the Trust Fund, to pursue any claim a responsible party could have brought against a third party under any law, in order to recover the money paid out by the Trust Fund and preserve the Trust Fund's ability to respond quickly to spills in the future. The OPA is intended to quickly compensate victims of spills, minimize environmental damage, and internalize the costs of oil spills within the oil industry. The subrogation

Equitable recoupment requires more than just a request to balance the equities. CARCO points out that although equitable recoupment most often arises in the context of offsetting monetary claims, as in tax or bankruptcy cases, it is not necessarily limited to those situations. *See, e.g.*, *Oneida Indian Nation of New York v. New York*, 194 F.Supp.2d 104, 136–37 (N.D.N.Y. 2002) (allowing an equitable recoupment defense in the context of offsetting requests for declaratory judgments in a land rights case). But CARCO still must assert some cognizable claim, rather than simply a request for the Court to reduce the United States' damages in the interest of equity. Here, CARCO has failed to do so.

Neither does CARCO seek the same kind of relief as the United States. The United States seeks contractual relief, to which it is entitled by operation of statute. *See* 33 U.S.C. § 2715. CARCO, by contrast, seeks equitable relief, or (on another reading) essentially tort-based relief grounded in misrepresentation by the agencies. The mismatched relief sought by CARCO and the United States does not support CARCO's equitable recoupment defense.

The requirement that a defendant seek the same kind of relief as has been sought in the plaintiff's claim is a fundamental requisite for recoupment. The defense is not intended to be a catch-all to allow any claims otherwise barred by time, settlement, or statute to be heard as equity seems to require. Equitable recoupment is intended to allow only truly similar claims arising from the same transaction to offset one another in the interest of equity between the parties. As noted,

---

provision serves those purposes by letting cleanup costs fall upon the liable party, rather than with the Trust Fund.

equitable recoupment is well-suited for disputes in which two claims arise out of the same taxable event or the same contractual obligation, as often seen in tax or bankruptcy cases. When, as here, the plaintiff seeks relief on a contract, the defendant may not resort to equitable recoupment as a means to assert a non-contractual claim, whether sounding in an equitable-balancing analysis, in tort, or otherwise.

CARCO has failed to meet its burden of establishing an equitable recoupment defense. It is liable to the United States in full.

VII. Limitation of Liability under the Oil Pollution Act

CARCO argues that a provision of the OPA, 33 U.S.C. § 2702(d)(2)(B), limits its liability in this case to the same extent to which Frescati's liability was limited—approximately $45 million. Because CARCO did not raise this defense with the requisite clarity until nearly ten years after this litigation began, the District Court concluded that CARCO waived it. We agree that the defense was waived.

A District Court's holding that an affirmative defense has been waived is reviewed for abuse of discretion. *Cetel v. Kirwan Financial Group, Inc.*, 460 F.3d 494, 506 (3d Cir. 2006). Waiver is appropriate if the party raising the defense did not do so at a "pragmatically sufficient time" and if the opposing party would be prejudiced if the defense were allowed. *Charpentier v. Godsil*, 937 F.2d 859, 864 (3d Cir. 1991).

Whether CARCO raised its defense at a pragmatically sufficient time requires us to determine *when* CARCO first raised the § 2702(d)(2)(B) defense. CARCO argues that it first raised the limitation defense in its 2005 answer to Frescati's Amended Counterclaim

by referring to the OPA. The District Court concluded that CARCO's answer contained nothing that would have put Frescati or the United States on notice that CARCO planned to rely on a limitation of liability defense. In general, "[a]n affirmative defense . . . 'need not be articulated with any rigorous degree of specificity, and is sufficiently raised for purposes of [Fed. R. Civ. P. 8] by its bare assertion.'" *Moody v. Atl. City Bd. of Educ.*, 870 F.3d 206, 218 (3d Cir. 2017) (quoting *Zotos v. Lindbergh Sch. Dist.*, 121 F.3d 356, 361 (8th Cir. 1997)). Nevertheless, the party asserting the defense must actually do so, and in a way that gives fair notice of that defense.

CARCO relies on the averment listed as its "Seventh Separate Defense," which reads simply: "The claims and causes of action set forth in the plaintiffs' Amended Counterclaim are barred in whole or in part by the provisions of the Oil Pollution Act of 1990, 33 U.S.C. § 2701, et seq." JA at 355. Noticeably absent from this general averment is any specific citation to the limitation of liability defense or even a description of the nature of the defense. This is significant, because the OPA includes a number of potential affirmative defenses. *See, e.g.*, 33 U.S.C. § 2702(b) (limiting scope of damages for which the OPA imposes liability); § 2702(c) (excluding certain oil spills from OPA liability); § 2702(d)(1)(A) (shifting liability under the OPA to a solely responsible third party); § 2702(d)(2) (limiting the liability of certain parties under the OPA); § 2703 ("Defenses to liability"). CARCO's general reference to the entirety of the OPA did not provide adequate information from which Frescati could determine that CARCO was seeking to limit its liability under § 2702(d)(2)(B). Nor did CARCO develop this defense at any point before the first trial. For that

reason, CARCO's unspecified reference to the OPA did not provide the requisite fair notice to Frescati.

Furthermore, Frescati would be prejudiced if the defense were allowed. As the District Court found, if CARCO had asserted its defense in a timely fashion, fifteen days of depositions and trial testimony from seven witnesses could have been avoided, along with the OPA damages phase of the first trial.[29]

CARCO did not clearly assert the limitation defense until nearly a decade after this action commenced, and over a year after the first trial and appeal had concluded. The District Court appropriately concluded that CARCO had not raised the defense at a pragmatically sufficient time, and that Frescati would be prejudiced if the defense were allowed. The District Court did not abuse its discretion in finding the defense waived.[30]

---

[29] Allowing CARCO to assert the defense after failing to raise it at a practicable time wastes the District Court's resources as well.

> Affirmative defenses must be raised as early as practicable, not only to avoid prejudice, but also to promote judicial economy. If a party has a successful affirmative defense, raising that defense as early as possible, and permitting a court to rule on it, may terminate the proceedings at that point without wasting precious legal and judicial resources.

Robinson v. Johnson, 313 F.3d 128, 137 (3d Cir. 2002).

[30] It is worth noting that the United States similarly waived a defense by its failure to raise an argument in the first trial. We previously held that the United States waived its right to object to CARCO's equitable recoupment defense on the basis that it violated the terms of the partial settlement agreement. *In re Frescati*, 718 F.3d at 214.

VIII. Prejudgment Interest Rate

The District Court awarded Frescati prejudgment interest of just over $16 million. Frescati, in its cross-appeal from the District Court's judgment, argues that the District Court erred by using the federal postjudgment interest rate set by 28 U.S.C. § 1961(a) to determine the amount of the prejudgment interest award. Specifically, Frescati argues that the District Court improperly believed itself bound to use the federal postjudgment rate rather than the higher U.S. prime rate because Frescati did not present evidence of its borrowing costs.

An award of prejudgment interest is reviewed for abuse of discretion. *Ambromovage v. United Mine Workers of Am.*, 726 F.2d 972, 981–82 (3d Cir. 1984); *see also Sun Ship, Inc. v. Matson Nav. Co.*, 785 F.2d 59, 63 (3d Cir. 1986). When selecting an interest rate, the District Court must keep in mind that the rate and corresponding award "must be compensatory rather than punitive." *Del. River & Bay Auth. v. Kopacz*, 584 F.3d 622, 634 (3d Cir. 2009).

Here, the District Court awarded Frescati prejudgment interest at the one-year Treasury rate—the same rate used as the federal postjudgment interest rate. *See* 28 U.S.C. § 1961(a). Importantly, the District Court found that the postjudgment rate would "fairly and adequately compensate Frescati for its losses." JA at 183.

Frescati argues that, in the absence of evidence of borrowing costs, we should require the use of the U.S. prime rate. We grant that, had the District Court chosen to use the prime rate, it would not have abused its discretion even without extensive proof of borrowing costs. *Taxman v. Bd. of Educ.*, 91 F.3d 1547, 1566

(3d Cir. 1996) (en banc). Indeed, the prime rate is commonly used to approximate the cost the defendant would have paid to borrow in the market, and at least one court appears to require it. *See, e.g.*, *Gorenstein Enters., Inc. v. Quality Care-USA, Inc.*, 874 F.2d 431 (7th Cir. 1989) (requiring use of the prime rate in certain circumstances); *see also Forman v. Korean Air Lines Co.*, 84 F.3d 446, 450–51 (D.C. Cir. 1996) ("[T]he prime rate is not merely *as* appropriate as the Treasury Bill rate, but *more* appropriate . . . ."). In this Circuit, however, a district court is not constrained to the use of only the prime rate: "[i]n exercising [its] discretion, . . . the court may be guided by the rate set out in 28 U.S.C. § 1961." *Sun Ship*, 785 F.2d at 63; *Taxman*, 91 F.3d at 1566 ("[A] court 'may' use the post-judgment standards of 28 U.S.C. § 1961(a) [to calculate prejudgment interest, though] it is not compelled to do so.").[31]

The District Court determined that the federal postjudgment rate "fairly and adequately compensate[s] Frescati for its losses." JA at 183. Under our Court's precedent, the District Court acted within its discretion.

IX. Conclusion

The District Court's order dated August 17, 2016 will be affirmed in part, vacated in part, and reversed in part. The District Court's judgment in favor of Frescati on the breach of contract claim and the prejudgment interest award will be affirmed. The District Court's judgment in favor of Frescati on the negligence claim will be vacated. The District Court's judgment in

[31] Nor was it an abuse of discretion for the District Court to adopt a variable interest rate. Interest accumulated for more than a decade, and during that time prevailing interest rates changed substantially.

favor of the United States will be affirmed in part with respect to CARCO's liability on the subrogated breach of contract claim, but the judgment will be reversed and remanded for further proceedings in light of our equitable recoupment ruling for the purpose of recalculating damages and prejudgment interest. The District Court's order dated April 9, 2015, denying CARCO's motion for partial summary judgment on its limitation of liability defense, will be affirmed.

APPENDIX B

UNITED STATES DISTRICT COURT
E.D. PENNSYLVANIA

Civil Action Nos. 05-cv-305 (JHS),
08-cv-2898 (JHS)

IN RE PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS THE OWNER OF THE M/T ATHOS I, AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE M/T ATHOS I, FOR EXONERATION FROM OR LIMITATION OF LIABILITY.

UNITED STATES OF AMERICA,

Plaintiff,

v.

CITGO ASPHALT REFINING COMPANY, *et al*.,

Defendants.

Signed 07/25/2016

OPINION

Slomsky, District Judge

TABLE OF CONTENTS

I. INTRODUCTION

On November 26, 2004, as the oil tanker M/T Athos I approached its final destination in Paulsboro, New Jersey, it struck an unknown, abandoned ship anchor on the bottom of the Delaware River. The submerged anchor punctured the M/T Athos I's hull, causing approximately 264,000 gallons of crude oil to spill into the Delaware River. An extensive cleanup effort ensued. Although the cleanup was successful, it was also expensive and led to the instant litigation in this Court.

II. BACKGROUND

A. Factual Background

At or near the heart of this dispute is the M/T Athos I ("Athos I"), a single-hulled oil tanker measuring approximately 748 feet long and 105 feet wide. *In re Frescati Shipping Co., Ltd.*, 718 F.3d 184, 190 (3d Cir. 2013). It was owned by Frescati Shipping Company, Ltd. ("Frescati"). *Id.* At the time of the accident, the Athos I had been chartered into a tanker pool created by Star Tankers, Inc. ("Star Tankers"), which is not a party to this action. *Id.*

CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (together referred to as "CARCO") sub-chartered the Athos I from the Star Tankers pool to deliver a shipment of crude oil from a facility in Puerto Miranda, Venezuela, to its asphalt refinery located in Paulsboro, New Jersey. *Id.* CARCO vetted the Athos I for this shipment. *Id.* at 199. It memorialized the agreement between itself and Star Tankers in a voyage charter party, a common form of maritime contract for shipping services. *Id*. at 191. This contract included a safe berth warranty, which triggered two

separate protections: "a contractual excuse for a master [or captain] who elects not to venture into an unsafe port, and protection against damages to a ship incurred in an unsafe port to which the warranty applies."[1] *Id.* at 197 (citing 2 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 11-10, at 32-33 (5th ed. 2011)). Frescati, as the owner of the Athos I, is a third-party beneficiary of the warranty and relies on the portion that protects against damages to a ship incurred in an unsafe port. *Id.* at 197-98.

On November 26, 2004, the Athos I was nearing its final destination at CARCO's asphalt refinery in Paulsboro, New Jersey. *Id*. at 192. Around 12:15 p.m., the vessel reached the entrance to the Delaware Bay, where a local Delaware River Pilot named Captain Howard Teal, Jr. ("Captain Teal") boarded. *Id.* Captain Teal navigated the Athos I up the Delaware River in a channel, which is a demarcated transit lane for ships, until it reached the range[2] in the channel closest to CARCO's Paulsboro berth area. Around 8:30 p.m., a Delaware River Docking Pilot named Captain Joseph Bethel ("Captain Bethel") boarded the Athos I and replaced Captain Teal as the navigator. *Id.* Captain Bethel began the final docking maneuver of the Athos I into the Paulsboro berth. *Id.* The tide was relatively low at the time, reaching its lowest point

---

[1] A safe berth warranty is an "express or implied obligation [ ] that the charterer will not require the vessel to call at an unsafe port or enter an unsafe berth to load, discharge, or take on bunkers." Robert Force, *Admiralty and Maritime Law* 50 (2d ed. 2013). The terms "berth," "terminal," and "port" may be used interchangeably throughout this Opinion.

[2] The Delaware River channel is divided into ranges, each of which is named. For example, there is the Tinicum Range, the Billingsport Range, and the Mifflin Range.

only fifty minutes prior to the beginning of the docking maneuver. *Id.*

CARCO's Paulsboro facility sits on a jetty on the New Jersey side of the Delaware River.[3] *Id.* Federal Anchorage Number Nine ("the Anchorage" or "Anchorage Number Nine") separates the Delaware River channel from CARCO's Paulsboro berth area.[4] *Id.* at 192. The Anchorage is neither owned nor controlled by CARCO. *Id.* at 194. Instead, it is maintained by governmental agencies, such as the United States Army Corps of Engineers, which conducts intermittent depth surveys of the Anchorage for dredging purposes. *Id.* CARCO retains responsibility over its triangular shaped Paulsboro berth area. *Id.*

To reach the berth, Captain Bethel had to maneuver the vessel from the channel through Federal Anchorage Number Nine, and then to the dock at CARCO's berth.[5] While in the Anchorage, at 9:02 p.m., Captain

---

[3] *See* Appendix (Ex. "A") for a photograph with a red outline of the pertinent area. (Ex. P-1153.)

[4] An anchorage is "[a]n area where ships can anchor." *Black's Law Dictionary* 105 (10th ed. 2014). It is a place designated as suitable for temporary anchoring and is akin to a parking lot for vessels.

[5] *See* Appendix (Ex. "A") for a photograph and diagram of the Paulsboro berth area. As the Third Circuit explained,

> [T]he Anchorage's border runs diagonally to CARCO's waterfront, ranging between 130 to 670 feet from the face of its ship dock. Across the Anchorage, the River Channel begins less than 2,000 feet from CARCO's berth, a little more than two-and-a-half lengths of the Athos I. Customarily, a tanker of the Athos I's size would come up the River, make a starboard (right) 180° turn into the Anchorage, and would then be pushed sideways by tugs (i.e., parallel parked) into CARCO's pier.

In re Frescati, 718 F.3d at 192.

Bethel was in the process of maneuvering the Athos I to the dock when the ship began to list heavily to one side.[6] *Id.* at 192. Oil then became visible in the river. *Id.* Ultimately, approximately 264,000 gallons of crude oil spilled into the Delaware River.[7] The cost to remove the crude oil and to clean affected areas was considerable, and it took months to complete the project.

It was later determined that the Athos I had allided[8] with an unknown, abandoned ship anchor located on the river bottom in Federal Anchorage Number Nine. *In re Frescati*, 718 F.3d at 192. The anchor was exhumed and inspected. *Id.* It weighed approximately nine tons and measured 6 feet, 8 inches long, 7 feet, 3 inches wide, and 4 feet, 6 inches high.[9] *Id.* The owner of the abandoned anchor has never been located.[10] *Id.* at 193.

---

[6] List is defined as "to tilt to one side; esp, of a boat or ship." *Merriam-Webster's Collegiate Dictionary* (11th ed. 2004). Listing or tilting to one side is caused by a disturbance to the state of equilibrium aboard a ship, such as an unbalanced load. *Id.*

[7] As will be noted *infra*, Frescati witness David Hall testified that, in his estimation, the amount of crude oil that spilled into the Delaware River was approximately 264,321 gallons. (Hall Tr., 170:3-171:21, Mar. 4, 2015.)

[8] An allision is "[t]he contact of a vessel with a stationary object such as an anchored vessel or a pier." *Black's Law Dictionary* 91 (10th ed. 2014). "In modern practice, the less specific term collision is often used where allision was once the preferred term." *Id.* Both terms will be used in this Opinion.

[9] *See* Appendix (Ex. "B-1," "B-2," "B-3") for photographs of the exhumed anchor. (Ex. D-2022, photographs 1 and 2; Ex. D-1913.)

[10] CARCO speculates that the anchor was used for dredging operations and was dropped by Government personnel or a contractor responsible for the dredging. As mere speculation, this allegation will not be relied upon in reaching a conclusion of law.

B. Procedural History

This litigation involves an attempt by three parties to apportion monetary liability for the casualty. *Id.* at 189. The first party includes the Athos I's owner, Frescati Shipping Company, Ltd., and its manager, Tsakos Shipping & Trading, S.A. (also referred to as "Frescati" or "Frescati Plaintiffs"). *Id.* Frescati alleges that it spent approximately $143 million for oil spill cleanup costs and damages. The second party is the United States Government, which reimbursed Frescati nearly $88 million, pursuant to the provisions of the Oil Pollution Act of 1990 ("OPA"), 33 U.S.C. § 2701, et seq. *Id*. Both Frescati and the Government seek reimbursement for their respective costs from the third party to this litigation—entities known as CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (jointly referred to as "CARCO"). *Id.* CARCO contracted to have the oil shipped on the Athos I from Venezuela to its refinery in Paulsboro, New Jersey. *Id.*

Frescati has brought a contract claim against CARCO for breaching the safe berth warranty included in the contract that CARCO made with Star Tankers, Inc. ("Star Tankers"), the intermediary responsible for chartering the Athos I to transport crude oil to CARCO's Paulsboro berth. *Id.* Frescati is covered by the safe berth warranty as a third-party beneficiary. *Id.* at 197-98. Frescati also has brought a negligence claim against CARCO for failing to locate, warn of, and remove the lurking anchor. *Id.* at 207. The Government, as a statutory subrogee under OPA seeking to recover the $88 million it reimbursed Frescati, has agreed to limit its claim for reimbursement from CARCO to Frescati's contractual claim for breach of the safe berth warranty. *Id.* at 189. This

limitation was agreed to in a partial settlement agreement with CARCO. *Id.* The Government therefore has no negligence claim against CARCO.

Following a forty-one day bench trial in 2010 before the Honorable John Fullam, a retired Judge of this Court, Judge Fullam found that CARCO was not liable for the casualty under any theory of liability. *Id.* Frescati appealed. *Id.* On May 16, 2013, the Third Circuit affirmed in part and vacated in part the judgment and held, *inter alia*, that the Court (Fullam, J.) did not make appropriate findings of fact and conclusions of law as required under Federal Rule of Civil Procedure 52(a)(1).[11] *Id.* The Third Circuit remanded this action for further consideration by the assigned successor judge, Joel H. Slomsky. *Id.* at 214.

On April 1, 2014, this Court (Slomsky, J.) held a status hearing to discuss the parameters of the case on remand. During the hearing, counsel for CARCO noted that because a successor judge has been assigned to this case, Federal Rule of Civil Procedure 63 applies. The text of this Rule is quoted below. All parties ultimately agreed that the Rule applied here, which added a dimension to this case not mentioned by the Court of Appeals in its remand opinion.

---

[11] Rule 52(a)(1) provides:

> In an action tried on the facts without a jury or with an advisory jury, the court must find the facts specially and state its conclusions of law separately. The findings and conclusions may be stated on the record after the close of evidence or may appear in an opinion or a memorandum of decision filed by the court.

Fed. R. Civ. P. 52(a)(1). There is no right to a jury trial in admiralty litigation. Fed. R. Civ. P. 38(e). The trial is before a judge. *Id.*

C. Rule 63 Proceeding

Rule 63 of the Federal Rules of Civil Procedure covers a proceeding where "[a] successor judge steps into the shoes of the original judge in order to finish something that the original judge had started." *Patelco Credit Union v. Sahni*, 262 F.3d 897, 905 (9th Cir. 2001). A classic example of a Rule 63 proceeding occurs where a substitute judge must "make a finding of fact at a bench trial based on evidence heard by a different judge." *Id.* Rule 63 states:

> If a judge conducting a hearing or trial is unable to proceed, any other judge may proceed upon certifying familiarity with the record and determining that the case may be completed without prejudice to the parties. In a hearing or a nonjury trial, the successor judge must, at a party's request, recall any witness whose testimony is material and disputed and who is available to testify again without undue burden. The successor judge may also recall any other witness.

Fed. R. Civ. P. 63. Rule 63 requires that the successor judge certify familiarity with the record and determine that the proceeding may be completed without prejudice to the parties. *Id.* Certification requires a successor judge to first read and familiarize himself with relevant portions of the record. *Canseco v. United States*, 97 F.3d 1224, 1227 (9th Cir. 1996). A successor judge may certify familiarity by reviewing the record before him, which includes examining the docket, the pleadings, and the transcripts from previous proceedings. *See In re Lang*, 293 B.R. 501, 510 (10th Cir. 2003) (finding that a successor judge certified familiarity with the record because he had "consider[ed] the evidence produced, the arguments of counsel, and . . . [the] applicable case law"). By certifying familiarity

with the record, the court ensures that the parties will not be prejudiced when the successor judge proceeds where the original judge left off. 12 *Moore's Federal Practice* § 63.04[3] (3d ed. 2015).

If the successor judge feels that, after certifying familiarity, factual findings and conclusions of law can be drawn from the record without prejudice to the parties, he may dispose of the case. 11 Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 2922 (3d ed. 2015). For example, in *Lashbrook v. Kennedy Motor Lines*, the district court noted that the record was sufficiently clear and complete, allowing the successor judge to dispose of the motion for a new trial without hearing the case again. 119 F. Supp. 716, 717 (W.D. Pa. 1954). However, if the successor judge feels that questions of law and fact remain, the recall of witnesses should be permitted.

In limited circumstances, a successor judge may make a finding of fact based on evidence heard by a different judge earlier in the proceeding. Fed. R. Civ. P. 63, Advisory Committee's note to 1991 amendment. The Committee's note to Rule 63 states that:

> The revised text authorizes the substitute judge to make a finding of fact at a bench trial based on evidence heard by a different judge. This may be appropriate in limited circumstances. First, if a witness has become unavailable, the testimony recorded at trial can be considered by the successor judge pursuant to Fed. R. Evid. 804, being equivalent to a recorded deposition available for use at trial pursuant to Rule 32. For this purpose, a witness who is no longer subject to a subpoena to compel testimony at trial is unavailable. Secondly, the successor judge may determine that

> particular testimony is not material or is not disputed, and so need not be reheard. The propriety of the proceeding in this manner may be marginally affected by the availability of a videotape record; a judge who has reviewed a trial on videotape may be entitled to greater confidence in his or her ability to proceed.
>
> The court would, however, risk error to determine the credibility of a witness not seen or heard who is available to be recalled.

Id. At a party's request, a successor judge must recall a witness whose testimony is material and disputed, and who is available to testify again without undue burden. Fed. R. Civ. P. 63. As noted, the successor judge may consider an unavailable witness's trial testimony as the equivalent of a recorded deposition available for use at trial pursuant to Rule 32 of the Federal Rules of Civil Procedure.

Rule 63 also allows a successor judge to recall witnesses *sua sponte*. 12 *Moore's Federal Practice* § 63.05[4][a] (3d ed. 2015). The policy behind this provision is that the successor judge, not having heard the witnesses at trial, may be hindered in resolving issues of credibility.[12] *Id.* For example, in *Home Placement Serv., Inc. v. The Providence Journal Co.*, the First Circuit noted that "[u]ndue prejudice to the litigants might exist if, for instance, the determination to be made by the new district judge turned substantially on the credibility of witnesses whom the judge did not have the opportunity to observe in the context

[12] Although the judge assigned to this case (Slomsky, J.) did not recall witnesses *sua sponte*, the policy reason for this allowance applies equally well to witnesses recalled to testify by the parties.

of the original trial." 819 F.2d 1199, 1204 n.6 (1st Cir. 1987). This notion is of particular concern in the instant complex case, where the new judge (Slomsky, J.) did not see or hear the witnesses who testified at the trial before Judge Fullam. *See, e.g., Thompson v. Sawyer*, 678 F.2d 257, 269-70 (D.C. Cir. 1982) (noting that the successor judge may be unable to make determinations in complex civil cases without observing witness testimony).

The parties here contested what evidence from the original trial could be considered by the successor judge. Ultimately, on November 17, 2014, this Court issued an Order on the evidence that would be considered at the Rule 63 proceeding. (Doc. No. 736.)[13] The Order provided:

> (1) [T]hat as the successor judge under Fed. R. Civ. P. 63, the Court will consider the live testimony of recalled witnesses and the exhibits introduced therewith at the recall hearing as the substantive evidentiary record of their testimony in assessing their credibility and deciding the merits of this case and (2) that this Court will base its decision on (and the parties may rely on) the previous trial testimony of those recalled witnesses before the original judge only to the extent that the Court formally admits their prior testimony into evidence at the recall hearing, as Fed. R. Evid. 801(d) or other provisions of the Federal Rules of Evidence or Federal Rules of Civil Procedure may allow.

---

[13] This case involves two consolidated actions, Civil Action No. 05-cv-305 and Civil Action No. 08-cv-2898. Unless otherwise noted, references to the docket are to Civil Action No. 05-305.

(Doc. No. 736 at 1-2.) Thus, the testimony of recalled witnesses at the Rule 63 rehearing became part of the evidentiary record for making credibility determinations, findings of fact, and conclusions of law. This testimony gave the successor judge an opportunity to observe witnesses as they testified and be in a better position to make factual findings based on that evidence. Prior testimony of recalled witnesses also could be used as the Federal Rules of Evidence and Civil Procedure permit. In addition, an unavailable witness's trial testimony was the equivalent of a recorded deposition available for use at the Rule 63 proceeding.[14]

---

[14] The Court has made reference only to four unavailable witnesses in the Findings of Fact. Three witnesses are Captain Iosif Markoutsis, Chief Mate Georgios Zotos, and Tsakos President Charalambos Hajimichael. As CARCO explained, "as foreign nationals they are beyond the Court's subpoena power and are therefore considered unavailable." (Doc. No. 867 at 37.) The remaining unavailable witness, Captain Virgil Quillen, testified at the first trial but passed away before the Rule 63 proceeding. The parties agreed that prior testimony from these unavailable witnesses can be relied upon in making factual findings. The Court has not made any credibility determination in regard to these witnesses. The Court has also considered the trial testimony of other witnesses in accordance with the requirements of Rule 63, as noted above, and prior deposition testimony submitted by the parties as evidence at the first trial before Judge Fullam. *See* E.D. Pa. Local Admiralty Rule 15(A). Although the testimony of witnesses fall within the ambit of these rules, the Court has only referred to the testimony of certain witnesses in this Opinion. Moreover, the Court agrees with CARCO that, in a Rule 63 proceeding, credibility determinations could be made based on the deposition or prior testimony of an unavailable witness. (Doc. No. 866 at 7-10.) The Court has followed this mandate but has not found it necessary in this Opinion to make specific reference to the credibility of these witnesses.

On October 22, 2014, this Court certified familiarity with the record and found that this case could be completed without prejudice to the parties. The Court entered the certification before making any substantive rulings in this case. (Doc. No. 723.) On March 4, 2015, the Rule 63 hearing began. More than twenty witnesses were recalled, resulting in a thirty-one day proceeding.[15]

D. Oil Pollution Act of 1990

As the responsible party required to clean up the oil spill under the Oil Pollution Act of 1990, Frescati did

---

[15] Near the end of the proceedings, Frescati sought to introduce rebuttal testimony from four witnesses. (Civil Action No. 08-2898, Doc. No. 438.) CARCO objected to the introduction of any rebuttal testimony.

"Rebuttal evidence must generally tend to refute the defendant's proof." *Bhaya v. Westinghouse Elec. Corp.*, 922 F.2d 184, 190 (3d Cir. 1990). It is allowed in the limited circumstances where a "defendant's witnesses have presented an alternative theory or new facts or have otherwise created a need for a particularized response." *Bowman v. General Motors Corp.*, 427 F. Supp. 234, 240 (E.D. Pa. 1977). Additionally, Rule 611 of the Federal Rules of Evidence mandates that the Court exercise reasonable control over the mode and order of examining witnesses and presenting evidence. This includes controlling "the scope of rebuttal and surrebuttal." Paul F. Rothstein, *Fed. Rules of Evidence Rule 611* cmt. 1 (3d ed. 2015).

In accordance with the *Bowman* decision, this Court limited rebuttal testimony. 427 F. Supp. at 240. The Court explained that only "anything new presented [by the defense] to the trier of fact can be the subject of rebuttal." (Trial Tr., 85:20-21, May 26, 2015.) Accordingly, the Court disallowed the rebuttal testimony of one proffered witness in full. The Court also severely limited the rebuttal testimony of the other three witnesses. (Trial Tr., 91: 24-92:3, 112:20-115:6, May 26, 2015.) Rebuttal testimony was limited to only new matters that the defense raised in its case-in-chief.

so and incurred approximately $143 million in cleanup costs and damages. As noted, the Government reimbursed Frescati nearly $88 million. Thus, it is evident that the statutory scheme of the Oil Pollution Act heavily influenced the actions of the parties in this case and the eventual cleanup of the oil spill.

i. Provisions of the Oil Pollution Act of 1990 ("OPA")

The Oil Pollution Act of 1990 ("OPA") was passed in the aftermath of the Exxon Valdez spill in 1989, which released over eleven million gallons of oil into Alaska's Prince William Sound and created an environmental disaster that cost over $3 billion in cleanup efforts.[16] 3 *Benedict on Admiralty* ch. IX, § 112 (7th ed. 2015). In response, Congress passed OPA to quickly compensate victims, minimize environmental damage, and

[16] Prior to the enactment of the Oil Pollution Act in 1990, various federal and state laws governed the aftermath of oil pollution from vessels. 2 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 18-3, at 287 (5th ed. 2011). One of the first federal statutes was enacted in 1970. It was Section 311 of the Federal Water Pollution Control Act ("FWPCA"). 33 U.S.C. §§ 1251-1397. Three years later, in 1973, Congress passed the Trans-Atlantic Pipeline Authorization Act ("TAPAA"), which covered Alaskan oil pollution. 43 U.S.C. §§ 1651-1655. Following this legislation, Congress enacted the Deepwater Port Act of 1974 ("DWPA"), and the Outer Continental Shelf Lands Act Amendments of 1978 ("OCLSA") [sic]. 43 U.S.C. §§ 1901-1906; 43 U.S.C. §§ 1801-1866. The most comprehensive legislation enacted, however, was the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). 42 U.S.C. §§ 9601-9675. In addition to federal laws governing the aftermath of oil pollution from vessels, various state laws were promulgated to address pollution incidents. When the Exxon Valdez spill occurred, the adequacy of federal and state laws governing oil spill pollution were examined and resulted in major legislative changes on the federal level.

internalize the costs of oil spills within the oil industry. H.R. Res. 1465, 101st Cong. (1989) (enacted). To meet these goals, Congress established a liability scheme in which the person or entity that spilled the oil (i.e., the "responsible party") must pay initially for all removal costs, and after doing so, it may then be entitled to statutorily limit its liability, through review by and reimbursement from the Government, after cleanup efforts are underway. 33 U.S.C. §§ 2703(c), 2713.

OPA makes the responsible party for a vessel from which oil is discharged liable for removal costs and damages under 33 U.S.C. § 2702, which provides:

> Notwithstanding any other provision or rule of law, and subject to the provisions of this Act, each responsible party for a vessel or a facility from which oil is discharged, or which poses the substantial threat of a discharge of oil, into or upon the navigable waters or adjoining shorelines or the exclusive economic zone is liable for the removal costs and damages specified in subsection (b) of this section that result from such incident.

33 U.S.C. § 2702(a). Responsible parties include owners and operators of both vessels and facilities. 33 U.S.C. § 2701(32). The act imposes strict liability on those found responsible for discharging oil. 3 *Benedict on Admiralty*, *supra* § 112. When there is more than one responsible party, liability is joint and several. 2 Schoenbaum, *supra*, § 18-3, at 289.

Three complete defenses to strict liability are permitted under OPA. 33 U.S.C. § 2703(a). If the discharge of oil was caused solely by (1) an act of God, (2) an act of war, or (3) an act or omission of a third party, then the spiller will have a complete defense to

liability. *Id.* Where an oil spill is caused solely by an act or omission of a third party (other than the responsible party), the third party is subject to the same liability for damages as responsible parties. 2 Schoenbaum, *supra*, § 18-3, at 292.

OPA encourages rapid private party responses to environmental disasters. *Unocal Corp. v. United States*, 222 F.3d 528, 535 (9th Cir. 2000). Spillers who immediately cooperate and begin cleanup efforts may be entitled to limit their liability. In fact, OPA places a monetary cap on the liability of cooperative responsible parties.[17] "Because the Act sets liability limits for

---

[17] Pursuant to 33 U.S.C. § 2708, a responsible party may be entitled to a limitation of liability under 33 U.S.C. § 2704. A responsible party who is entitled to a limitation of liability may file a claim with the Oil Spill Liability Trust Fund for reimbursement of the amount that removal costs and damages exceeded the limitation of liability amount. 33 U.S.C. § 2708(b). 33 U.S.C. § 2704 has rules to determine the total liability of a responsible party. In the case of a tank vessel or any other vessel, OPA sets forth the method to calculate the limit on liability based on tonnage of the vessel. *Id.*

Specifically, for a tank vessel, the total liability of a responsible party shall not exceed the greater of:

> (A) with respect to a single-hull vessel, including a single-hull vessel fitted with double sides only or a double bottom only, $3,000 per gross ton;
>
> (B) with respect to a vessel other than a vessel referred to in subparagraph (A), $1,900 per gross ton; or
>
> (C) (i) with respect to a vessel greater than 3,000 gross tons that is —
>
> (I) a vessel described in subparagraph (A), $22,000,000; or
>
> (II) a vessel described in subparagraph (B), $16,000,000; or
>
> (ii) with respect to a vessel of 3,000 gross tons or less that is —

cooperative responsible parties, an incentive exists for responsible parties to respond quickly and competently in order to limit the extent of their financial exposure." *In re Frescati*, 718 F.3d at 193 (citing 33 U.S.C. § 2704(a)). Responsible parties in compliance with OPA may file a claim with the Oil Spill Liability Trust Fund ("the Fund"), controlled by the United States Government, for reimbursement of costs beyond the liability limit.[18] 33 U.S.C. § 2708(a)(2).

In the instant action, Frescati was able to limit its liability for cleanup costs to $45,474,000, thus allowing it to recover cleanup costs exceeding that amount from the Fund. *In re Frescati*, 718 F.3d at 193. It was ultimately reimbursed $87,989,157.31 for expenses arising from the Athos I oil spill.

ii. Subrogation Under OPA

Once the Fund has compensated a claimant, including a responsible party, it is subrogated to all rights

---

(I) a vessel described in subparagraph (A), $6,000,000; or

(II) a vessel described in subparagraph (B), $4,000,000;

33 U.S.C. § 2704(a)(1). A "tank vessel" includes a vessel that carries oil in bulk as cargo, and that operates on the navigable waters, or transfers oil in a place subject to the jurisdiction of the United States. 33 U.S.C. § 2701(34). For any other vessel, the limitation of liability is $950 per gross ton or $800,000, whichever is greater. 33 U.S.C. § 2704(a)(2).

[18] The Fund was established in 1986 and is supported by a tax of five cents per barrel on imported oil. 3 *Benedict on Admiralty*, ch. IX, § 112 (7th ed. 2015). The Fund is available to pay removal costs and other claims, damages, and expenses incurred in connection with an oil spill. 2 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 18-3, at 303 (5th ed. 2011). As noted, a responsible party may file a claim with the Fund to seek reimbursement for its removal costs and damages incurred as a result of an oil spill. 33 U.S.C. § 2708.

the claimant has under any law. 33 U.S.C. § 2715(a). This Section provides that "[a]ny person, including the Fund, who pays compensation pursuant to this Act to any claimant for removal costs or damages shall be subrogated to all rights, claims, and causes of action that the claimant has under any other law." *Id.* Additionally, OPA has codified in § 2712(f) the Government's right of subrogation after disbursements from the Fund. It states that "[p]ayment of any claim or obligation by the Fund under this Act shall be subject to the United States Government acquiring by subrogation all rights of the claimant or State to recover from the responsible party." 33 U.S.C. § 2712(f). Subrogation occurs when "'one person is allowed to stand in the shoes of another and assert that person's rights against' a third party." *US Airways, Inc. v. McCutchen*, 133 S. Ct. 1537, 1546 n.5 (2013) (citation omitted) (explaining that "subrogation simply means substitution of one person for another"). As noted, the Fund paid Frescati $87,989,157.31 as reimbursement for its removal costs and damages. By doing so, the Government was subrogated to all rights, claims, and causes of action Frescati had under any law in regard to the removal costs or damages.

iii. Oil Spill Response Under OPA

Oil spill responses under OPA and other federal laws are highly regulated to ensure that oil removal is handled as quickly and safely as possible.

First, OPA requires owners and operators of tank vessels and facilities to create a detailed contingency response plan, which is referred to as "vessel response plan," covering a worst-case scenario oil spill.[19] 33 U.S.C.

[19] Specifically, a vessel response plan must:

§ 1321(j)(5)(D). Vessel response plans include contractual commitments from oil spill removal contractors, which are known as Oil Spill Response Organizations ("OSROs"), to facilitate an immediate response to an oil spill. 3 *Benedict on Admiralty, supra*, § 112. These plans include training programs for response personnel, salvage plans for vessel damage, and firefighting procedures for vessels carrying flammable cargo. *Id.* (citing 33 C.F.R. § 155.4010).

Second, a vessel response plan must identify a "qualified individual" who acts as a liaison between the vessel interests and the United States Coast Guard. The qualified individual has the authority to implement oil removal efforts, and to represent both

---

(i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;

(ii) identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing personnel and equipment pursuant to clause (iii);

(iii) identify, and ensure by contract or other means approved by the President the availability of, private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;

(iv) describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;

(v) be updated periodically; and

(vi) be resubmitted for approval of each significant change.

33 U.S.C. § 1321(j)(5)(D).

the vessel owner and the protection and indemnity club, which is known as a "P&I Club."[20] 33 U.S.C. § 1321(j)(5)(D)(ii).

Third, although responsibility for the oil removal and cleanup lies with the responsible party, the Government directs the cleanup effort. 2 Schoenbaum, *supra*, § 18-3, at 303. OPA provides that the President has the authority to respond to an oil spill and monitor all federal, state, and private removal efforts. *Id.* (citing 33 U.S.C. § 1321(c)-(d)). The President has delegated this authority to the Coast Guard as the government agency responsible for ensuring that oil is removed from the environment. *See* 33 U.S.C. § 1321(c)(1)(A) (stating that the Coast Guard, by virtue of this delegation of authority, must "ensure effective and immediate removal of a discharge . . . of oil").

Fourth, the Coast Guard federal on-scene coordinator (who is referred to as the "FOSC") is responsible for managing the cleanup efforts. 2 Schoenbaum, *supra*, § 18-3, at 303 (citing 40 C.F.R. § 300.1). When faced with large or complex oil spills, the FOSC will enlist the help of the Coast Guard's national strike force, which is staffed with responders who specialize in oil spills. 33 U.S.C. § 1321(d)(2)(C). The FOSC must ensure that cleanup efforts comply with the Government's plan for responding to oil spills, which is referred to as the national oil and hazardous substances

---

[20] A P&I Club is a "mutual insurance societ[y]." 2 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 19-12, at 392-94 (5th ed. 2011). Essentially, a P&I Club acts as an insurance provider for a group of vessels, and provides "third-party liability insurance covering vessel owners for specific named risks." *Id.* Today, protection and indemnity insurance may cover virtually all risks. *Id.*

pollution contingency plan (the "national contingency plan"). 33 U.S.C. § 1321(d)(4).

Fifth, the national contingency plan "provides the organizational structure and procedures for preparing for and responding to discharges of oil." 40 C.F.R. § 300.1. In particular, it outlines strategic objectives and priorities regarding oil spill responses. 40 C.F.R. § 300.3. It prioritizes oil spill response goals in the following order:

> (a) Safety of human life must be given the top priority during every response action. This includes any search and rescue efforts in the general proximity of the discharge and the insurance of safety of response personnel.
>
> (b) Stabilizing the situation to preclude the event from worsening is the next priority. All efforts must be focused on saving a vessel that has been involved in a grounding, collision, fire, or explosion, so that it does not compound the problem. Comparable measures should be taken to stabilize a situation involving a facility, pipeline, or other source of pollution. Stabilizing the situation includes securing the source of the spill and/or removing the remaining oil from the container (vessel, tank, or pipeline) to prevent additional oil spillage, to reduce the need for follow-up response action, and to minimize adverse impact to the environment.
>
> (c) The response must use all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impact to the environment.
>
> (d) All parts of this national response strategy should be addressed concurrently, but safety

> and stabilization are the highest priorities. The [F]OSC should not delay containment and removal decisions unnecessarily and should take actions to minimize adverse impact to the environment that begins as soon as a discharge occurs, as well as actions to minimize further adverse environmental impact from additional discharges.
>
> (e) The priorities set forth in this section are broad in nature, and should not be interpreted to preclude the consideration of other priorities that may arise on a site-specific basis.

40 C.F.R. § 300.317. Thus, safety of all personnel and stabilization of the damaged vessel are top priorities. 40 C.F.R. § 300.317(d). The plan directs the FOSC to contain the oil spill as quickly as possible to ensure these priorities are met. The cost incurred for removal is not the immediate priority.

The FOSC manages the oil spill response efforts through the incident command system ("ICS"). The FOSC works with the responsible party's designated incident commander, and state on-scene coordinators to implement the ICS.[21] Essentially, the ICS is an organized structure through which day-to-day cleanup efforts are executed. It is split into four sections: planning, operations, logistics, and finance. (LaFerriere Tr., 37:24-38:4, Mar. 23, 2015.)[22]

Planning involves creating a daily plan to combat the oil spill, which is referred to as the incident action

---

[21] These personnel are referred to as the "unified command."

[22] Transcript citations refer to a transcript which has four segments on each page, with the exception of testimony from unavailable witnesses which was taken from the original trial transcript.

plan. This includes daily objectives and work assignments. Work assignments are itemized on standard forms known as "ICS 204 assignment lists." The FOSC must approve the incident action plan each day, ensuring that it meets the requirements outlined in OPA and the national contingency plan. 33 U.S.C. § 1321(d)(4); 40 C.F.R. § 300.317. Additionally, the operations section monitors the execution of each work assignment on the ICS 204 assignments lists. The logistics section orders, organizes, and delivers equipment, personnel, and other resources on a daily basis. Meanwhile, finance is responsible for managing the daily costs of the operation.

The ICS verifies that the cleanup is being completed. Coast Guard personnel monitor the cleanup efforts to ensure the tasks are being performed properly. Furthermore, the ICS uses standardized documents as a form of verification, such as the ICS Incident Status Summary Form, the ICS 211 Check-In Form, the ICS 213 RR Resource Request Form, and the ICS 214 Daily Log. The oil spill response is highly organized and regulated to ensure that oil removal is handled as quickly and as safely as possible.

E. Third Circuit Opinion

Before moving on in this Opinion to the Findings of Fact and Conclusions of Law, a review of the Opinion of the Third Circuit Court of Appeals in this case is necessary, especially given the information already discussed above and the guideposts set forth in the decision. As already noted, an appeal to the United States Court of Appeals for the Third Circuit was taken from the decision of the District Court (Fullam, J.) that CARCO had no liability for the oil spill. On May 16, 2013, the Third Circuit issued the Opinion in this case, in which it vacated in part the decision

of Judge Fullam and directed this Court to resolve certain issues on remand. *In re Frescati*, 718 F.3d at 184. The Third Circuit stated, in relevant part:

> Although remand is appropriate because the District Court [Fullam, J.] failed to set out separate findings of fact and conclusions of law as required by Federal Rule of Civil Procedure 52(a)(1), our legal conclusions also make it necessary to remand for factual findings.
>
> We conclude that the Athos I, and Frescati as its owner, are beneficiaries of CARCO's contractual safe berth warranty. This was an express assurance that CARCO's port would be safe for the Athos I within the scope of its invitation—that is, drawing 37 feet or less.[23] Therefore, on remand it will need to be determined whether this amount of clearance was actually provided. This analysis may require inquiries into the arriving draft of the Athos I and, if the vessel was drawing more than the agreed-upon depth of 37 feet, the depth and positioning of the anchor.
>
> * * *
>
> We further conclude that, as this case is primarily a contractual one, analysis of Frescati's negligence claim is required only if the contractual safe berth warranty of CARCO is deemed satisfied. In that event, because we conclude that the accident occurred within the approach to CARCO's terminal, the District Court would need to determine the appropriate standard of care, whether it was

[23] The phrase "drawing 37 feet or less" means that the ship's draft, which is the measurement from the water line to the bottom of the ship's hull (which is the keel of the ship), was 37 feet or less.

> breached, and if so, was that breach the cause of the spill. . . .
>
> Finally, we conclude that the Government has waived its reliance on its partial settlement agreement in challenging CARCO's defenses to liability.[24]
>
> We thus affirm in part, vacate in part the District Court's judgment orders of April 12, 2011 against Frescati and the Government, and remand for further proceedings consistent with this opinion. Further appeals relating to this case will be referred to the current panel.

---

[24] With respect to the Government's waiver, the Third Circuit stated:

> [The Government] thus asks us to preclude CARCO on remand from raising any equitable defense premised on the Government's regulation of the Anchorage. CARCO responds that it retained unspecified equitable defenses relevant to defending against, *inter alia*, the contractual claims, and that the Government conflates defenses to these claims with violations of CARCO's promise to forbear making claims against the Government sounding in tort to reduce or offset damages awarded to it. . . .
>
> After hearing oral argument, the District Court denied the Government's pretrial motion on the ground "that the question of subrogation defenses [by CARCO] is better resolved with the benefit of a full trial record." J.A. at 101. CARCO claims that the Government failed to follow up at trial, and thus waived the issue. We agree, as we see no indication that the Government renewed its argument at trial (or argued before us how the issue has not been waived). Thus, we decline to preclude CARCO from revisiting any previously raised equitable defense to the Government's subrogation claims.

In re Frescati, 718 F.3d at 214 (alteration in original) (footnotes omitted).

Id. at 214-15. Thus, following the direction of the Third Circuit, this Court will address each of these issues in turn.

i. Issues This Court Will Resolve

In accordance with the Opinion of the Third Circuit, this Court has been asked to determine first whether the contractual safe berth warranty was breached, and, if necessary, whether CARCO was negligent in maintaining the approach to its berth. The Third Circuit held that CARCO conceded that the safe berth warranty "'would include the area in and around Paulsboro,' including [Federal Anchorage Number Nine]." *Id.* at 203. Next, regarding whether the contractual safe berth warranty was breached, the Court of Appeals noted that the fact "[t]hat similar ships had successfully berthed at the port is irrelevant to whether the warranty was actually breached in this case," and then directed this Court to determine whether the port was safe or the warranty breached based only on facts specific to the Athos I and its arrival at port rather than those based on similar ships. *Id.* at 204. Put another way, the Third Circuit stated that this Court must "determine whether the anchor rendered CARCO's port unsafe for a ship of the Athos I's agreed-upon dimensions and draft." *Id.* at 203.

To determine whether the warranty was breached, this Court must first determine whether the safe berth warranty covered a draft of 37 feet or less. *Id.* at 204 n.20. The Court of Appeals explained, "it appears that CARCO warranted a safe berth with the understanding that the Athos I would be drawing as much as 37 feet of water upon its arrival." *Id.* at 204. "The Voyage Instructions indicate that the vessel would be filled with a quantity of crude oil 'always consistent with

a 37 [foot] or less [fresh water] sailing draft at loadport.'"[25] *Id.* (quoting Voyage Instructions, Ex. P-360) (alterations in original). However, as the Third Circuit noted, "Of course, this is ultimately a factual matter for remand." *Id.* at 204 n.20. Thus, as a preliminary matter, this Court must determine the size of draft that the warranty covered.

Findings as to the Athos I's actual draft at the time of the accident must also be made. This draft must be found because "the warranty made by CARCO appears to have covered the Athos I up to a draft of 37 feet." *Id.* at 204. As a result, if the Court concludes that the Athos I was drawing 37 feet or less without bad navigation or seamanship, then CARCO breached the warranty because the ship was damaged. *Id.* at 204-05.

The Third Circuit continued that if the Court cannot determine the draft or if the ship was drawing more than 37 feet, the Court must determine the amount of clearance above the anchor. *Id.* at 205. This determination would be necessary "to conclude whether the promised 37 feet of water depth was actually provided." *Id.* Thus, the Court must make a finding on the draft covered by the warranty and then determine whether Athos I was drawing that amount or less. Finally, if the draft cannot be determined, the Court must determine the clearance provided above the anchor.

The next issue this Court will decide is whether CARCO was negligent in maintaining the approach to

---

[25] In this case, the load port was in Puerto Miranda, Venezuela. The discharge port was in Paulsboro, New Jersey. Both berths are located in fresh water ports as opposed to salt water found in the open seas.

its terminal.[26] *Id.* at 207. To determine whether CARCO was negligent, the Court must make findings on the applicable standard of care, whether CARCO breached that standard, and whether such breach proximately caused the accident. A wharfinger[27] "is 'bound to use reasonable diligence in ascertaining whether the berths themselves and the approaches to them are in an ordinary condition of safety for vessels coming to and lying at the wharf.'" *Id.* (quoting *Smith v. Burnett*, 173 U.S. 430, 436 (1899)). The Court of Appeals explained, however, that it was insufficiently informed to determine the standard of care applicable to such a duty, and that on remand this Court should delineate the exact standard of care that applies here. *Id.* at 211-12.

Additionally, this Court must find whether CARCO breached the applicable standard of care. *Id*. In this regard, the Court of Appeals stated that "[n]egligence exists where there was a 'fail[ure] to exercise that caution and diligence which the circumstances demanded, and which prudent men ordinarily exercise.'" *Id.* at 211 (quoting *Grand Trunk R.R. v. Richardson*, 91 U.S. 454, 469 (1875)). The Third Circuit continued, "[i]n admiralty, the particular duty required under any

---

[26] Although the Court of Appeals explained that if this Court "rules in favor of Frescati on its contractual warranty claim, its negligence claim becomes unnecessary," *id*. at 190, this Court will render a decision on both claims. No party has objected to this procedure and Frescati and CARCO concurred that the negligence issue also should be resolved by this Court. Substantial evidence was presented at the Rule 63 proceeding by Frescati and CARCO on the negligence claim and on defenses to the claim.

[27] A wharfinger—here, CARCO—is the manager or operator of a commercial wharf.

given circumstance can be gleaned from statute, custom, or 'the demands of reasonableness and prudence.'" *Id.* (quoting 1 Thomas J. Schoenbaum, *Admiralty and Maritime Law*, § 5-2, at 253 (5th ed. 2011)).

Finally, with regard to negligence, this Court must determine "whether the failure, if any, to meet the standard of care proximately caused the accident." *Id.* at 212. The Court of Appeals explained, "proximate cause holds that a negligent defendant is liable for all the general kinds of harms he foreseeably risked by his negligent conduct to the class of persons he put at risk by that conduct." *Id.* (internal quotation marks omitted). Thus, the question of causation turns on whether prudent behavior would have prevented this accident from occurring. *Id.* This requires an inquiry into the diligence required of a prudent wharfinger under the circumstances, and "whether a failure to implement those procedures proximately caused the accident." *Id.* The Court will address each of these issues in turn.

ii. Binding Third Circuit Conclusions

The Third Circuit made other legal rulings, which guide this Court's analysis in this case. First, with respect to the contractual safe berth warranty, the Third Circuit concluded, "although Frescati was not a named beneficiary to the safe berth warranty . . . the Athos I benefits from this warranty, and Frescati, as the vessel's owner, is thus a third party beneficiary." *Id.* at 197-98. A safe berth warranty benefits the vessel, and therefore "benefits its owner as a corollary beneficiary." *Id.* at 199. Further, it would produce arbitrary results and create a windfall for CARCO if the vessel's owner was deprived of the contractual benefits. *Id.* The Court of Appeals concluded that on remand, "Frescati, as the owner of the Athos I, may

therefore rely on CARCO's safe berth warranty as a third-party beneficiary." *Id.* at 200.

Second, the Third Circuit determined the scope of the safe berth warranty. Guided by the Second Circuit, the Court of Appeals found that the safe berth warranty is an express assurance for the safety of the vessel that the berth will be as represented. *Id.* at 202. It explained that "a port is unsafe—and in violation of the safe berth warranty—where the named ship cannot reach it without harm." *Id.* at 200. The Third Circuit reasoned that the charterer—here, CARCO—is more likely than the ship owner to be familiar with the selected port. *Id.* at 202. Furthermore, the "'express assurance' warranty is most consistent with industry custom" and the "'always afloat' language plainly suggests an express assurance." *Id.* at 202-03. Thus, the Third Circuit concluded that "the safe berth warranty is an express assurance made without regard to the amount of diligence taken by the charterer." *Id.* at 203.

Third, the Court of Appeals determined the scope of the approach to the berth. It stated that the approach "should be understood by its ordinary terms, and that its scope is derived from custom and practice at the particular port in question." *Id.* at 207-08. Thus, the approach is given its plain meaning, and a ship is on its approach when it "transitions from its general voyage to a final, direct path to its destination." *Id.* at 209. More specifically, a ship is on its approach when it "makes its last significant turn from the channel toward its appointed destination following the usual path of ships docking at the terminal." *Id.* The Third Circuit concluded, therefore, that the Athos I, while in the Anchorage, was indeed within the approach to CARCO's terminal when the accident occurred. *Id.* at

211. CARCO had a duty to "exercise reasonable diligence in providing the Athos I with a safe approach," which included the passage through the Anchorage. *Id.*

III. FINDINGS OF FACT[28]

A. The Tanker, the Parties, and the Charters

1. This action arises out of an oil spill on the Delaware River. *In re Frescati*, 718 F.3d at 189. On November 26, 2004, an oil tanker named the Athos I struck an abandoned anchor on the riverbed, puncturing its hull and causing oil to spill into the river. *Id.* at 192.

i. The Tanker

2. The Athos I is a single-hulled oil tanker measuring approximately 748 feet long and 105 feet wide. *Id.* at 190; (Teal Tr., 54:16-24, Mar. 16, 2015).

3. The Athos I is classified as a Panamax-size tanker, meaning that it is capable of passing through

---

[28] Many witnesses testified at the Rule 63 proceeding, including a considerable number of qualified experts. The parties' experts disagreed on a number of critical issues. The "battle of the experts" and testimony from other witnesses has compelled this Court to make a credibility finding on certain witnesses. Unless otherwise indicated, in the footnotes that follow, this Court will refer to those witnesses who prevailed in the "credibility" battle and were found to be most credible and reliable by the Court. In addition, unless otherwise indicated, when the Court quotes or refers to the testimony of a specific witness, whether in the body of this Opinion or in a footnote, the Court is finding that the testimony has been proven as a fact, and that fact is relied on in reaching conclusions of law in this case. At times, an opposing contention of a party may be referred to in the Findings of Fact merely to highlight the positions of the parties on a specific factual matter. The Court will note, however, which facts are being found.

the lock chambers of the Panama Canal.[29] At the time of the accident, the Athos I was 21 years old. It was registered in Cyprus.[30]

4. A tanker is a "vessel used primarily for transporting bulk liquid cargoes, such as . . . liquid petroleum products." *Black's Law Dictionary* 1684 (10th ed. 2014). As a large vessel, a tanker is fitted with a series of tanks in the bottom of the ship in which cargo is stored during transit.

5. A single-hulled oil tanker like the Athos I has tanks containing cargo right behind the steel shell plating of the hull.[31] In essence, it has one sheet of steel separating the outside of the ship from its internal cargo tanks. In contrast, a double-hulled oil tanker has an outer hull, which is the outermost boundary of the ship, and an inner hull. These create a double layer of protection between the outermost hull and the cargo tanks.[32]

---

[29] *See* Appendix (Ex. "C") for photographs of the Athos I.

[30] The Athos I was registered as a Cyprus flagged ship. (Certificate of Registry, Ex. D-1844.) A maritime flag is "[a] flag designated for use on a vessel to show in what country the vessel is registered." *Black's Law Dictionary* 755 (10th ed. 2014). The flag establishes a ship's "citizenship" for purposes of protection, trade, and regulation. 1 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 2-21, at 69 (5th ed. 2011).

[31] The hull is the structural body of the ship. 8 *Benedict on Admiralty*, Nautical Glossary (7th ed. 2015).

[32] After the Exxon Valdez oil spill, Congress recognized the danger posed by single-hulled oil tankers. In response, it enacted stricter requirements for these vessels, with the eventual phase-out of all single-hulled tankers. 3 *Benedict on Admiralty* ch. § 112 (7th ed. 2015). At the time of the accident, single-hulled tankers like the Athos I were grandfathered by the gradual phase-out

ii. The Parties

6. The first party in this action, the Plaintiffs, includes Frescati Shipping Company, Ltd., and Tsakos Shipping & Trading, S.A. *In re Frescati*, 718 F.3d at 189.

7. Frescati Shipping Company, Ltd. owned the Athos I. *Id.*

8. Tsakos Shipping & Trading, S.A. ("Tsakos") was the manager of the Athos I pursuant to a contract with Frescati. *Id.* It is joined in this litigation with Frescati Shipping Company, Ltd. as the Frescati Plaintiffs. (Ship Management Agreement, Ex. P-705 ¶ 2.3.)

9. The second party in this action is the United States Government ("the Government"), which reimbursed Frescati nearly $88 million for the oil spill cleanup efforts. *In re Frescati*, 718 F.3d at 189.

10. The third party in this action, the Defendants, includes CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Oil Corporation. *Id.* They are a set of affiliates known here collectively as "CARCO." *Id.*

11. CARCO requested that oil be shipped on the Athos I from Puerto Miranda, Venezuela, to CARCO's asphalt refinery in Paulsboro, New Jersey. *Id.*

iii. The Charters

12. Before the accident, Frescati chartered the Athos I to Star Tankers, Inc. ("Star Tankers"), which placed the Athos I in a tanker pool under a pooling

---

provision of OPA and were allowed to transport oil, provided that they met certain conditions. *Id.*

agreement.[33] (Star Tankers Pool Agreement, Ex. P-355.) Star Tankers is not a party to this action.

13. In admiralty, contracts for service are known as charter parties.[34] A charter party is a highly standardized written contract that provides the terms for one party (the charterer) to hire the carrying services of a vessel that is owned by another party. Robert Force, *Admiralty and Maritime Law* 44 (2d ed. 2013).

14. Two common types of charter parties were used in this case: a time charter party and a voyage charter party. *In re Frescati*, 718 F.3d at 190-91. "A time charter party is a contract for the use of the carrying

---

[33] A tanker pool is a collection of tanker vessels under various ownership, which are placed under the care of a single administrator, known as a pool manager. The pool manager markets the vessels in the tanker pool to those companies interested in hiring vessels to carry cargo, facilitating the employment of each vessel. A pooling agreement is "[a] contract between shipowners or others having rights in vessels to cooperate in the management and operation of all vessels controlled by the group whereby each ship earns from the pool a share in net pool income proportionately with the ship's agreed theoretical earning capacity, as opposed to its actual earnings in the pool." *Black's Law Dictionary* 1348 (10th ed. 2014). It is essentially the contract used to set up a tanker pool. It typically covers issues such as the objective of the pooling agreement, the authority of the pool managers, the capacity in which the pool managers will act, and the means by which the pool manager will be paid.

[34] As the Third Circuit explained:

> The term "charter party" may be confusing in that it does not refer to an entity, but a document. This is due to its historical genesis, deriving from the phrase "*charta partita*, i.e., a deed of writing divided." The *charta partita* was literally a divided document, the owner and charterer each retaining one half of the agreement.

In re Frescati, 718 F.3d at 190 n. 1 (quoting *Black's Law Dictionary* 268 (9th ed. 2009)).

capacity of a particular vessel for a specified period of time (months, years, or a period of time between specified dates)." Robert Force, *Admiralty and Maritime Law* 44 (2d ed. 2013). Unlike a time charter party where a "vessel's employment is put under the orders of . . . charterers" for a period of time, a voyage charter party is a contract in which the owner of the vessel agrees to carry cargo from one port to another on a particular voyage.[35] Julian Cooke et al., *Voyage Charters* ¶ 1.1 (3d ed. 2007); Robert Force, *Admiralty and Maritime Law* 44 (2d ed. 2013).

15. In October 2001, the Athos I was chartered into a tanker pool assembled by Star Tankers pursuant to a time charter party. *In re Frescati*, 718 F.3d at 190-91. "Under a time charter, the owner [Frescati] remains responsible for the navigation and operation of the vessel and the charterer [Star Tankers] assumes responsibility for arranging the employment of the vessel, providing fuel and paying for certain cargo-related expenses." *Id.* at 191 (alterations in original). The time charter party allowed Star Tankers to sublet (or sub-charter) the Athos I to an entity interested in hiring the vessel to transport its cargo from one place

---

[35] The Third Circuit noted that:

> The fundamental difference between voyage and time charters is how the freight or "charter hire" is calculated. A voyage charter party specifies the amount due for carrying a specified cargo on a specified voyage (or series of voyages), regardless of how long a particular voyage takes. A time charter party specifies the amount due for each day that the vessel is "on hire," regardless of how many voyages are completed.

In re Frescati, 718 F.3d at 191 n.2 (quoting David W. Robertson et al., *Admiralty and Maritime Law in the United States* 335 (2d ed. 2008)).

to another. Frescati remained responsible for keeping the vessel staffed and serviceable. *Id.* Thereafter, CARCO entered into the voyage charter party with Star Tankers for the Athos I to transport oil from Venezuela to New Jersey.

iv. Vetting the Athos I

16. CARCO was interested in transporting a load of crude oil from Venezuela to its asphalt refinery in Paulsboro, New Jersey. To do so, it vetted the Athos I to ensure the vessel was fit for transporting its cargo. (Rankine Tr., 186:17-21, May 26, 2015.) The vetting process is performed to inspect the condition of each vessel prior to its employment. (Rankine Tr., 186:17-21, May 26, 2015.) It includes a physical inspection of the vessel, as well as a review of the vessel's documentation. (Rankine Tr., 198:9-17, 211:12-19, May 26, 2015.)

17. In 2004, CARCO hired International Marine Consultants ("IMC") to perform the Athos I's physical vetting in Corpus Christi, Texas. (Rankine Tr., 9:12-10:4, May 27, 2015.)

18. On October 24, 2004, IMC Captain Khushru Dasoor ("Captain Dasoor") vetted the Athos I. (Rankine Tr., 36:5-10, May 28, 2015; CITGO Vetting Inspection Report, Ex. P-1373.) This included a physical inspection as well as paper vetting. Paper vetting was required to ensure that all certificates were valid, including the Safety Management Certificate, the Document of Compliance, and the International Oil Pollution Prevention. (Rankine Tr., 32:25-33:10, 34:19-35:14, May 28, 2015.)

19. The paper vetting of the Athos I included review of a Q88 Form, which is an online form that is completed by the vessel owner and then downloaded by

entities interested in employing the vessel for transporting cargo. (Rankine Tr., 198:9-24, May 26, 2015.)

20. After vetting the Athos I, Captain Dasoor gave the vessel a rating of seven, which is an acceptable rating. (Rankine Tr., 36:5-10, May 28, 2015.)

21. The Q88 Form did not include information regarding an incident involving the Athos I that occurred in March 2004 off the coast of South Korea. (Rankine Tr., 30:8-10, May 28, 2015.) This incident occurred while the Athos I was managed and crewed by another company known as MareGulf, and does not affect the current matter.[36]

v. Voyage Charter Party

22. On November 12, 2004, CARCO sub-chartered the Athos I from the Star Tankers pool to transport a load of crude oil from Venezuela to its asphalt refinery in Paulsboro, New Jersey. *In re Frescati*, 718 F.3d at 190-91. CARCO's employment of the Athos I was pursuant to a voyage charter party. *Id.* at 191.

---

[36] Between 2001 and 2004, the Athos I was under the management of MareGulf ("Mare"). (Hajimichael Tr., 29:5-10, Oct. 19, 2010.) Mare supplied the crew and was responsible for the daily management of the vessel. (Hajimichael Tr., 29:5-10, Oct. 19, 2010.) In March 2004, Korean authorities inspected the vessel and alleged that one of the crew members bypassed the vessel's oily water separator and unlawfully discharged oil into the sea. (Hajimichael Tr., 91:15-98:10, Oct. 19, 2010.) After the Korean incident, Frescati replaced Mare with Tsakos as the manager of the Athos I. (Hajimichael Tr., 108:3-5, Oct. 18, 2010; 4:10-16, Oct. 19, 2010.) Information about the incident was available on the Internet through the Asia-Pacific Memorandum of Understanding, which is a group that monitors vessel performance. (Hajimichael Tr., 91:15-92:7, 96:18-97:9, Oct. 19, 2010.) As such, this information was publicly accessible to CARCO during the vetting process, but is not relevant to the incident in this case.

23. CARCO's particular voyage charter party, based on a standard industry form, contained a safe berth warranty. *Id.*

24. The safe berth warranty provided that: "The vessel . . . shall, with all convenient dispatch, proceed as ordered to Loading Port(s) named . . . or so near thereunto as she may safely get (always afloat) . . . and being so loaded shall forthwith proceed, as ordered on signing Bills of Lading, direct to Discharging Port(s), or so near thereunto as she may safely get (always afloat), and to deliver said cargo." (Voyage Charter Party, Ex. P-357, Part II, ¶ 1). The loading port was located in Puerto Miranda, Venezuela, and the discharging port was CARCO's berth in Paulsboro, New Jersey.

25. It further stated that:

> The vessel shall load and discharge at any safe place or wharf, or alongside vessels or lighters[37] reachable on her arrival, which shall be designated and procured by the Charterer, provided the Vessel can proceed thereto, lie at, and depart therefrom always safely afloat, any lighterage[38] being at the expense, risk and peril of the Charterer. The Charterer shall have the right of shifting the Vessel at ports of loading and/or discharge from one safe berth to another on payment of all towage and pilotage shifting to next berth, charges for running lines on arrival at and leaving that berth, additional agency charges and expense, customs overtime and fees, and any

[37] A "lighter" is a small vessel employed in loading or unloading larger vessels.

[38] "Lighterage" is the liquid cargo being transported on the vessel.

> other extra port charges or port expenses incurred by reason of using more than one berth. Time consumed on account of shifting shall count as used laytime except as otherwise provided in Clause 15.

(Voyage Charter Party, Ex. P-357, Part II, ¶ 9).

26. The safe berth warranty included two separate protections: "a contractual excuse for a master who elects not to venture into an unsafe port, and protection against damages to the ship incurred in an unsafe port to which the warranty applies." *In re Frescati*, 718 F.3d at 197.

vi. Draft Restriction in the Voyage Charter Party

27. The Third Circuit noted that, from the record, "CARCO warranted a safe berth with the understanding that the Athos I would be drawing as much as 37 feet of water upon its arrival." *Id.* at 204.

28. On November 15, 2004, CARCO provided Iosif Markoutsis ("Captain Markoutsis"), the Captain of the Athos I, with voyage instructions, which dictated the Athos I load cargo only up to a draft of 37 feet at Puerto Miranda, Venezuela.[39] (Voyage Instructions, Ex. P-360.)

29. The voyage instructions stated that the Athos I would be filled with a quantity of crude oil "always . . . consistent with a 37 [foot] or less [fresh water] sailing

---

[39] Captain Markoutsis was the Captain of the Athos I at the time of the casualty. Captain Markoutsis testified at the first trial. He did not testify at the Rule 63 proceeding because he was unavailable. Therefore, his testimony is being considered for limited purposes, such as the load draft of the Athos I, and the crew's ability to stop the oil leak.

draft at loadport." (Voyage Instructions, Ex. P-360). The voyage instructions further required that after loading, the Athos I would advise CARCO of the vessel's fresh water navigational draft. (*Id.*) CARCO had an inspector on site who recorded the loading draft. (Zotos Tr., 42:19-43:9, 49:14-17, Sept. 27, 2010.)

30. Another draft restriction on the Athos I was established by the Docking Pilots Association ("DPA") Guidelines.[40] These guidelines recommend appropriate docking windows for vessels of various sizes during certain stages of the tide. In 1999, at CARCO's request, the DPA established a docking window for the Paulsboro facility to maximize the number of vessels that could dock at CARCO's berth. (Quillen Tr., 11:10-12:9, Sept. 2, 2010; DPA Memo., Ex. P-50; P-52.) CARCO wanted a longer docking window to avoid demurrage costs, which are incurred for example, when ships are forced to wait in the channel or Anchorage before docking to satisfy the narrow docking timeframe.[41] This longer window allowed vessels with a maximum draft of 37 feet, 6 inches to dock at CARCO's berth "from the beginning of [the] flood current until the time of one (1) hour after high water Billingsport

---

[40] Captain Virgil Quillen ("Captain Quillen") was working on behalf of the DPA at the time, and communicated with the CARCO Port Captain about opening the docking window to allow ships to berth for longer periods of time. Captain Quillen testified at the first trial, but passed away before the Rule 63 proceeding, and therefore was unavailable to testify. His testimony is referred to for the limited purpose of understanding how the DPA worked with CARCO to open its docking window as noted.

[41] Demurrage is an agreed rate that is charged to a charterer when the ship is delayed during the charter for whatever reason through no fault of the ship. (Rankine Tr., 179:14-18, May 27, 2015.) The cost of a single day's demurrage for the Athos I was $42,000. (Voyage Charter Party, Ex. P-357, Part I, ¶ I.)

Range."[42] (Ex. P-52; Quillen Tr., 11:10-26:3, Sept. 2, 2010.)

31. The Court finds in this case that the maximum allowable draft for the Athos I upon its arrival to berth at the CARCO dock until the point of actual docking was at all times 37 feet, as noted in the voyage instructions, which required that the Athos I be filled with a quantity of crude oil always consistent with a 37 foot or less sailing draft at load port.

B. Geography of the Delaware River

32. The Delaware River is a major river on the Atlantic Coast of the United States. Originating in New York, it forms the entire boundary between Pennsylvania and New Jersey. It also is part of the

---

[42] The "tide" is the vertical movement of the water level, meaning that the water level moves above or below an average measurement called "Mean Lower Low Water" ("MLLW"). (Capone Tr., 208:3-209:3, Mar. 18, 2015.) MLLW is the 19-year average height of the lowest tide recorded at a tide station. It is essentially "zero." Actual water levels may be above or below the MLLW measurement at any given stage of the tide. (Capone Tr., 209:4-12, Mar. 18, 2015.) Tides in the Delaware River are semidiurnal (meaning that there are two high tides and two low tides each day) and the range of tide (the difference between high and low tide) is approximately six feet. (Capone Tr., 208:14-20, 226:14-16, Mar. 18, 2015.) The "tidal current" is the "horizontal component of . . . water movement." (Capone Tr., 211:10-16, Mar. 18, 2015.) When water flows up-river, this is referred to as a flood tide; when it moves down-river, it is referred to as an ebb tide. (Capone Tr., 212:11-16, Mar. 18, 2015.) Captain Howard Teal, Jr., a River Pilot on the Delaware, explained that a flood current is "an incoming current . . . associated with a slowly rising tide." (Teal Tr., 87:5-7, Mar. 16, 2015.) Allowing a ship to dock from the beginning of the flood current until one hour after high water would have reduced, at times, the available underkeel clearance between the riverbed and the bottom of the hull of the ship up to four feet. (Rankine Tr., 181:16-23, May 27, 2015.)

boundary between Pennsylvania and New York, and, for a few miles, the boundary between Delaware and New Jersey.

33. The Delaware River flows south, where it empties into the Delaware Bay (and the Atlantic Ocean) between Cape Henlopen, Delaware and Cape May, New Jersey.

34. All vessels traveling from the Delaware Bay north to the Delaware River, including the Athos I, are required to use a Delaware River Pilot to traverse its waters. *See* Del. Code Ann. tit. 23, § 121(a). These pilots have local knowledge of the surrounding waterways to safely navigate vessels to their final destinations.

35. The pilot station where Delaware River Pilots board ships is located at Cape Henlopen, Delaware. (British Admiralty Chart 2564, Ex. P-459.)

36. A Delaware River Pilot will generally navigate a vessel from the entrance to the Delaware Bay north, up the Delaware River, to its final destination.

37. With larger vessels such as the Athos I, Delaware River Pilots will generally stay within the Delaware River Channel, which has been dredged to a project depth of 40 feet.[43] The ship channel is "[t]he

---

[43] Historically, the Delaware River was not 40 feet deep. Rather, it has been dredged to 40 feet to promote the shipping industry. (DePasquale Tr., 40:2-13, Mar. 19, 2015; Teal Tr., 127:13-19, Mar. 16, 2015.) "Project depth" is the depth to which the Army Corps of Engineers has dredged the river. (DePasquale Tr., 40:2-13, Mar. 19, 2015.) If a section of the Delaware River had a project depth of 40 feet, the Army Corps of Engineers would conduct depth surveys intermittently in this area. If it found that the depths were shallower than 40 feet, these sections would be

part of a navigable body of water where the water is deep enough for large vessels to travel safely." *Black's Law Dictionary* 1589 (10th ed. 2014.) It is essentially the main thoroughfare in the center of the river, and is analogous to a highway for cars. Ships stay within channel boundaries because this is generally the deepest part of the waterway and is known to mariners as the commuting route (or "shipping lane").[44]

38. The Delaware River channel is divided into ranges, each of which is named. (*See, e.g.*, British Admiralty Chart 2604, Ex. P-461). For instance, if a ship were travelling north from the Delaware Bay along the Delaware River, it would pass through the Tinicum Range, the Billingsport Range, and would enter the Mifflin Range where it could start its approach to CARCO's Paulsboro berth area.

39. On either side of the channel are shallower waters, shoals, and anchorages. A shoal is "a sandbank or sandbar that makes the water shallow." *Merriam-Webster's Collegiate Dictionary* (11th ed. 2004). As noted earlier, an anchorage is "[a]n area where ships can anchor." *Black's Law Dictionary* 105 (10th ed. 2014). It is a place designated as suitable for temporary anchoring. *Merriam-Webster's Collegiate Dictionary* (11th ed. 2004).

40. Section 7 of the Rivers and Harbors Act of 1915 authorized the establishment of "anchorage grounds for vessels in all harbors, rivers, bays, and other navigable waters of the United States whenever it is manifest . . . that the maritime or commercial interests

---

dredged to ensure that the shallowest depths were at least 40 feet. This depth allows ships to transit the river safely.

[44] A shipping lane is "[a]n officially approved path of travel that ships must follow." *Black's Law Dictionary* 1589 (10th ed. 2014).

of the United States require such anchorage grounds for safe navigation." 33 U.S.C. § 471(a).

41. "By 1930, a 'lack of adequate anchorage room' was creating a hazard on the Delaware River between navigating vessels and 'those awaiting accommodation at the wharves, or awaiting cargo orders.'" *In re Frescati*, 718 F.3d at 193-94 (quoting H. Doc. No. 71-304, 24 (1930)).

42. In 1930, Federal Anchorage Number Nine, also known as the Mantua Creek Anchorage, was established. *Id.* at 194 (citing Pub. L. No. 71-520, 46 Stat. 918, 921 (1930)). It is approximately 2.2 miles long and runs alongside the Delaware River channel. (*Id.*; British Admiralty Chart 2604, Ex. P-461.) It "provides a place for ships to anchor so long as they do not 'interfere unreasonably with the passage of other vessels to and from Mantua Creek.'" *In re Frescati*, 718 F.3d at 194; 33 C.F.R. 110.157(a)(10). As noted, it is analogous to a parking lot, where vessels anchor and wait for other ships to pass before docking or traveling farther along the Delaware River.

43. The voyage from Puerto Miranda, Venezuela, to Paulsboro, New Jersey, is approximately 1,900 miles. Once the vessel reaches the entrance to the Delaware River, about 80 miles remain until the ship arrives at CARCO's Paulsboro berth.

44. In order to reach this berth, the vessel must travel along the Delaware River Channel, past the Billingsport Range. Once it reaches the Mifflin Range and is positioned in the channel, the vessel will start its approach into CARCO's berth. To do so, the vessel will move toward the eastern shore of the river, toward Paulsboro, New Jersey. In order to reach CARCO's

Paulsboro berth area, the vessel must pass through Federal Anchorage Number Nine.[45]

45. CARCO's Paulsboro berth is a fresh water port.

46. CARCO maintains a triangular-shaped berth area, which runs along the length of its terminal and extends offshore to the boundary of Federal Anchorage Number Nine.[46] This berth area is based on a permit issued by the Army Corps of Engineers for dredging and maintenance of the area. (Long Tr., 34:8-37:11, May 26, 2015.)

47. CARCO hired S.T. Hudson Engineers to perform annual hydrographic surveys of its triangular berth area.[47] Specifically, S.T. Hudson Engineers conducted hydrographic surveys of the area using single-beam sonar (also known as "single-beam hydrographic surveys"). (Long Tr., 49:18-50:7, May 26, 2015.) While a single-beam hydrographic survey is effective for charting depths, it is not designed to detect obstructions or hazards lurking on the river bottom. Single-

---

[45] The pertinent boundaries of Federal Anchorage Number Nine, which is located between the channel and CARCO's berth, are illustrated in the Appendix (Ex. "A").

[46] The boundary of CARCO's Paulsboro berth area is illustrated in the Appendix (Ex. "A").

[47] Richard Long ("Mr. Long") is the Vice President of S.T. Hudson Engineers, which is a marine consulting and engineering firm that is hired by many liquid product facilities along the Delaware River. (Long Tr., 6:7-11, 12:16-19, May 26, 2015.) He is a marine consultant and engineer and while employed by S.T. Hudson Engineers has conducted hydrographic or depth surveys for 31 oil terminals along the Delaware River. (Long Tr., 12:16-19, 13:7-10, 20:1-5, May 26, 2015.) Mr. Long acknowledged that S.T. Hudson Engineers represents "just the majority" of the terminals on the Delaware River and that there could be over 40 terminals. (Long Tr., 141:11-142:23, May 26, 2015.)

beam surveys are taken with a sounding mechanism (known as a "towpath") at 50-foot intervals. A potential hazard may not be located within the exact line being charted. Even if a hazard was located within the line of the towpath doing the survey, it does not necessarily mean that the interpreter of the data would be alerted to an obstruction. Rather, it would simply show a change in depth at that charted spot.

48. The single-beam hydrographic surveys performed by S.T. Hudson Engineers for CARCO covered the entire triangular berth area, and a minimal area of Federal Anchorage Number Nine.[48] (Long Tr., 53:1-3, May 26, 2015.) These surveys did not cover the entire Anchorage, nor did they cover the entire area of the Anchorage through which ships arriving at CARCO's berth would pass.

49. CARCO did not conduct any surveys within its berth area or Federal Anchorage Number Nine to search for hazards and obstructions.

50. CARCO did not ask the Army Corps of Engineers to search for hazards or obstructions in Federal Anchorage Number Nine.

---

[48] *See* Appendix (Ex. "A"). The photograph has green wavy lines located in CARCO's berth area which protrude into the Anchorage. These lines represent the path of the single-beam depth survey with intervals between them that could range from 50 to 400 feet. A close-up of the green lines would reveal numbers spaced out along the line which correspond to the depth in feet to the riverbed at a given point as recorded during the single-beam survey. The numbers would vary because the riverbed is not flat.

C. Maintenance of Federal Anchorage Number Nine

51. Federal Anchorage Number Nine is neither controlled nor maintained by CARCO.

52. Although the Third Circuit noted in *In re Frescati*, 718 F.3d at 194, that "No government entity, however, is responsible for preemptively searching all federal waterways for obstructions," this finding does not mean that the Government had no responsibility for maintaining Federal Anchorage Number Nine.

53. The Government is responsible for maintaining federally controlled waterways such as Federal Anchorage Number Nine. The United States Army Corps of Engineers (the "Corps"), the National Oceanic and Atmospheric Administration ("NOAA"), and the United States Coast Guard (the "Coast Guard") are all tasked with this responsibility.[49]

54. The Corps has regulatory jurisdiction that "extend[s] laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark." 33 C.F.R. § 329.11(a); *In re Frescati*, 718 F.3d at 194.

55. The Corps conducts hydrographic surveys and dredges as necessary to maintain the Anchorage's project depth at 40 feet. (DePasquale Tr., 25:3-5, 40:2-10, Mar. 19, 2015.) The goal of the Corps is to conduct regular single-beam hydrographic surveys of federally

[49] Under 33 U.S.C. § 1, this responsibility has been delegated to the Secretary of the Army, who has further delegated specific responsibilities to the Corps, NOAA, and the Coast Guard. *See* 33 U.S.C. § 1 (establishing that the Secretary of the Army has the power to regulate navigable waterways and may delegate this responsibility to governmental agencies as the Secretary sees fit).

controlled waterways to alert mariners to any change of water depths. (DePasquale Tr., 27:4-6, 32:6-7, Mar. 19, 2015.) Anthony DePasquale ("Mr. DePasquale"), Chief of the Operations Division for the Army Corps of Engineers, explained that some areas are surveyed more frequently than others "because of the nature of the shoaling or historical—the historical shoaling pattern in that area, so we do them more often than a year sometimes to keep up with what is going on."[50] (DePasquale Tr., 32:6-13, Mar. 19, 2015.)

56. The Government traditionally uses single-beam hydrographic surveys when monitoring Federal Anchorage Number Nine. It also has side-scan sonar equipment, which is predominantly used for searching for underwater obstructions.[51] In 2004, the Corps of

---

[50] Anthony DePasquale has worked for the Corps for over 34 years. (DePasquale Tr., 23:6-8, Mar. 19, 2015.) He is the Chief of the Operations Division, a position that he has held for seven years. (DePasquale Tr., 22:7, Mar. 19, 2015.) At the time of the Athos I casualty, he worked for the division of the Corps that manages all of the construction and dredging projects along the Delaware River. (DePasquale Tr., 22:8-10, 23:3-5, Mar. 19, 2015.) He explained that, although the Corps surveyed federally owned waterways for depths and for dredging purposes, it did not independently search for underwater obstructions. (DePasquale Tr., 37:9-12, Mar. 19, 2015.) Moreover, he explained what "shoaling" means. He stated that "[s]hoaling is just the amount of sediment or sand or mud that falls in the bottom of the river channel over time that makes it shallower." (DePasquale Tr., 32:16-20, Mar. 19, 2015.)

[51] Side-scan sonar is "used to locate objects on the sea floor." (Capone Tr., 176:7-10, Mar. 18, 2015.) It is also used to map geology, but is used "primarily to locate debris and obstructions." (Capone Tr., 176:7-10, Mar. 18, 2015.) Side-scan sonar works by producing overhead imagery of the sea floor using acoustics, as opposed to using light or photography. (Capone Tr., 186:4-8, Mar. 18, 2015.) "It literally produces an overhead image of the sea floor or riverbed from which we can identify objects, look at different

Engineers was equipped with single-beam, multi-beam, and side-scan sonar equipment.[52] (DePasquale Tr., 33:14-34:3, 36:12-14, Mar. 19, 2015.)

57. Once the surveys are performed, the Corps updates the depth charts for the surveyed areas and reports these changes in "survey channel exams," which are maps of the surveyed areas, and in "channel statements," which summarize the shallowest depths of each area. (DePasquale Tr., 26:5-27:3, Mar. 19, 2015; Bethel Tr., 126:3-24, Mar. 17, 2015; Ex. D-1174.) These updated maps are mailed to mariners to put them on notice of any changes. (DePasquale Tr., 26:15-20, Mar. 19, 2015.) The Corps routinely provides this information to local pilots, mariners, and anyone else who requests it by phone, e-mail, or at meetings of the local Mariners' Advisory Committee ("MAC"). (DePasquale Tr., 25:5-15, Mar. 19, 2015.)

58. Members of the local MAC include the Coast Guard, Delaware River pilots, the Corps, and representatives from the river terminals. (Ratcliffe Tr.,

---

sediment types and understand more about features on the riverbed itself." (Capone Tr., 186:13-16, Mar. 18, 2015.) Once surveys are completed to detect the presence of obstructions, removal of these obstructions may be necessary. John Fish, a private underwater search and surveyor, estimated that in 2004, he would have charged "somewhere between $8,000 and $11,000" to survey CARCO's approach area using side-scan sonar equipment. (Fish Tr., 210:20-21, Mar. 19, 2015.) Further, Vincent Capone, a hydrographer, estimated that the cost of performing side-scan sonar surveys of CARCO's approach would have been approximately $7,500 to $11,000. (Capone Tr., 200:9-24, Mar. 18, 2015.)

[52] A multi-beam survey would measure the depth of a river in a swath perpendicular to the direction that the survey vessel is traveling, thereby attempting to blanket the riverbed with soundings to measure the water depths.

64:1-65:1, Mar. 16, 2015; *see also* MAC Meeting Minutes, Exs. P-748–P-751, P-753–P-756, P-759–P-760.) MAC meetings are attended by many constituents of the maritime community, including the Corps, the Coast Guard, NOAA, Delaware River Pilots and docking pilots, facility owners and operators, terminal representatives, the Maritime Exchange (an industry group that facilitates communication between shipping and the Government), tugboat owners and operators, the Philadelphia Regional Port Authority, and architect engineering firms. (DePasquale Tr., 48:1-17, Mar. 19, 2015; Rankine Tr., 72:6-10, May 27, 2015.) CARCO was a member of the local MAC and William Rankine, CARCO's Paulsboro Port Captain, attended the meetings. (Rankine Tr., 43:11-12, May 28, 2015.) The Corps makes a presentation at every MAC meeting regarding dredging. (DePasquale Tr., 48:25-49:18, Mar. 19, 2015.) A question and answer period follows each presentation by the Corps, and representatives of the various entities have the opportunity to report problems to the Corps. (DePasquale Tr., 49:24-50:9, 69:9-19, Mar. 19, 2015.) Additionally, the Coast Guard makes presentations on aids to navigation and marine safety, and NOAA makes presentations on charting. (Rankine Tr., 73:2-25, May 27, 2015.)

59. The Corps determines the areas on the Delaware River that need to be dredged. Commercial dredging operations can include using old anchors to dig up sediment on the river bottom. (DePasquale Tr., 56:23-57:21, Mar. 19, 2015.)

60. The Corps also regulates any construction or excavation within navigable waters, including the issuance of dredging permits. 33 U.S.C. § 403. No

dredging in the Anchorage is permitted without prior approval from the Corps.[53]

61. On June 23, 2004, the Corps conducted a single-beam hydrographic survey of Federal Anchorage Number Nine. (DePasquale Tr., 29:10-15, Mar. 19,

---

[53] Section 10 of the Rivers and Harbors Act states:

> [I]t shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor or refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same.

33 U.S.C. § 403. The Corps does not allow a private party to alter or modify a federally maintained waterway on its own accord. *Id.* Rather, the Corps requires private parties to obtain governmentally issued permits before engaging in such projects. *Id.* Federal regulations reaffirm this principle, establishing that:

> Section 10 of the Rivers and Harbors Act approved March 3, 1899, (33 U.S.C. 403) (hereinafter referred to as section 10), prohibits the unauthorized obstruction or alteration of any navigable water of the United States. The construction of any structure in or over any navigable water of the United States, the excavating from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The instrument of authorization is designated a permit. The authority of the Secretary of the Army to prevent obstructions to navigation in navigable waters of the United States was extended to artificial islands, installations, and other devices located on the seabed, to the seaward limit of the outer continental shelf, by section 4(f) of the Outer Continental Shelf Lands Act of 1953 as amended (43 U.S.C. 1333(e)).

33 C.F.R. § 320.2(b).

2015.) The survey was conducted to update the controlling water depths of the Anchorage. The survey lines were approximately 400 feet apart. (DePasquale Tr., 30:20-24, Mar. 19, 2015.)

62. In addition to the Corps, the National Oceanic and Atmospheric Administration (NOAA) is involved in maintaining navigable waterways, including Federal Anchorage Number Nine. Like the Corps, NOAA conducts hydrographic surveys of the Delaware River, including Federal Anchorage Number Nine. NOAA has taken on the task of preparing and updating navigational charts used by mariners. The purpose of the charts is to promote safe navigation. (*See* Ex. D-1354.) These charts include information about water depths, including the controlling or shallowest depth within the limits of each range of the channel or anchorage, the location and depth of obstructions to navigation, and the predicted tides within a given range on the Delaware River. NOAA's charts also show the location of aids to navigation, anchoring areas, and other navigational features. (Ex. D-1535.) Obstructions are indicated on the charts by the abbreviation "Obstn." (*See* Ex. D-1354.) Federal Anchorage Number Nine was displayed on NOAA Chart 12313. (NOAA Nautical Chart 12313, Ex. D-1354.)

63. NOAA also maintains an Automated Wreck Obstruction Information System ("AWOIS") database, which publishes information on the location of known or suspected obstructions. The AWOIS website includes more than 10,000 reports, and as part of its hydrographical survey duties, NOAA reviews the AWOIS reports, determines which objects warrant field investigation, and assigns those objects to NOAA survey boats for investigation.

64. NOAA occasionally conducts surveys of the surrounding waterways for various federal projects. In 1981, NOAA surveyed Federal Anchorage Number Nine. (NOAA Descriptive Report 1981, Ex. D-1517.) Additionally, in 2002, NOAA performed a hydrographic survey of the Delaware River using side-scan and multi-beam sonar. (Ex. D-1520; Ex. D-1525.) In 2004, NOAA maintained a fleet of hydrographic survey vessels that were equipped with side-scan and multi-beam sonar. (Doc. No. 555.)

65. Along with the Corps and NOAA, the Coast Guard participates in monitoring federal waterways, including Federal Anchorage Number Nine. *See* 14 U.S.C. § 2 (explaining the general duties of the Coast Guard). The Coast Guard is responsible for maintaining all aids to navigation and for enforcing regulations pertaining to vessels in federal waterways. *See* 33 C.F.R. § 62.1 (establishing the Coast Guard's role in maintaining aids to navigation, such as buoys, lights, and other markers). It also establishes boundaries to anchorage grounds. 33 U.S.C. § 471.

66. The Coast Guard marks obstructions to navigation, including submerged structures. *See* 33 C.F.R. § 64.06 (defining a hazard to navigation as "an obstruction, usually sunken, that presents sufficient danger to navigation so as to require expeditious, affirmative action such as marking, removal, or redefinition of a designated waterway to provide for navigational safety").

67. The Coast Guard maintains a warning communication system titled "Notice to Mariners," which is published weekly and notifies mariners of any changes and discrepancies from the charts of navigable waterways, including shoaling and the location of newly discovered hazards to navigation. *See* 33 C.F.R.

§ 72.01-10 (describing the "Notice to Mariners" system as a means of notifying the maritime community about new hydrographic discoveries and information concerning the safety of navigation).

68. Together, the Corps, NOAA, and the Coast Guard are responsible for ensuring that information concerning any changes in navigable waterways is promptly made public for the benefit of the maritime community. 33 C.F.R. § 209.325.

69. These governmental agencies are responsible for handling hazards to navigation.[54] If the Government is alerted to a potential obstruction, the Corps

---

[54] 33 C.F.R. § 245.10 establishes the general policy for removal of obstructions in navigable waterways. It states:

> (a) Coordination with Coast Guard. The Corps of Engineers coordinates its wreck removal program with the Coast Guard through interagency agreement, to insure a coordinated approach to the protection of federal interests in navigation and safety. Disagreements at the field level are resolved by referral to higher authority within each agency, ultimately (within the Corps of Engineers) to the Director of Civil Works, who retains the final authority to make independent determinations where Corps responsibilities and activities are affected.
>
> (b) Owner responsibility. Primary responsibility for removal of wrecks or other obstructions lies with the owner, lessee, or operator. Where an obstruction presents a hazard to navigation which warrants removal, the District Engineer will attempt to identify the owner or other responsible party and vigorously pursue removal by that party before undertaking Corps removal.
>
> (c) Emergency authority. Obstructions which impede or stop navigation; or pose an immediate and significant threat to life, property, or a structure that facilitates navigation; may be removed by the Corps of Engineers under the emergency authority of section 20 of the Rivers and Harbors Act of 1899, as amended.

will remove it, provided that the obstruction is a hazard to navigation. 33 C.F.R. § 245.10. If the obstruction does not need to be removed, the Government will mark it and put mariners on notice that an obstruction is present. (DePasquale Tr., 37:2-39:12, 73:13-74:8, Mar. 19, 2015.) The Corps of Engineers responds to requests from the Coast Guard, pilots, and private users to locate reported objects. (DePasquale Tr., 37:13-38:14, Mar. 19, 2015.) Normally, the "[p]rimary responsibility for removal of wrecks or other obstructions lies with the [obstruction's] owner, lessee, or operator." 33 C.F.R. § 245.10(b). However, when an obstruction is determined to be a hazard to navigation, and the responsible party cannot be identified, the Corps of Engineers may remove the obstruction. 33 C.F.R. § 245.10(e) (*see also* DePasquale Tr., 73:15-20, Mar. 19, 2015).

70. The Government never suggested to CARCO that private wharfingers were responsible for surveying Federal Anchorage Number Nine. (Rankine Tr., 182:15-19, 182:23-183:13, May 26, 2015.) There is also

---

> (d) Non-emergency situations. In other than emergency situations, all reported obstructions will be evaluated jointly by the District Engineer and the Coast Guard district for impact on safe navigation and for determination of a course of action, which may include the need for removal. Obstructions which are not a hazard to general navigation will not be removed by the Corps of Engineers.
>
> (e) Corps removal. Where removal is warranted and the responsible party cannot be identified or does not pursue removal diligently, the District Engineer may pursue removal by the Corps of Engineers under section 19 of the Rivers and Harbors Act of 1899, as amended, following procedures outlined in this CFR part.

33 C.F.R. § 245.10.

no evidence that the Government instructed wharfingers to inspect the Anchorage for obstructions. (Rankine Tr., 77:5-13, May 27, 2015.)

71. As noted, Richard Long, who has performed single-beam hydrographic surveys for many facilities on the Delaware River, surveyed the permitted berth area for these terminals. (Long Tr., 74:11-20, May 26, 2015.) These surveys did not extend to the entirety of federally controlled waterways such as Federal Anchorage Number Nine. (Long Tr., 14:23-15:2, 52:23-53:3, May 26, 2015.) Instead, terminal operators along the Delaware River relied on the Government to inspect and maintain federal anchorages. (Long Tr., 74:6-10, May 26, 2015.) As a result, CARCO did not search for debris and hazards in Federal Anchorage Number Nine. (Rankine Tr., 140:3-5, May 27, 2015.)

D. The Voyage

i. Athos I's Departure Draft at Puerto Miranda, Venezuela

72. The voyage instructions required the Athos I to be loaded to a draft of 37 feet or less in fresh water at Puerto Miranda, Venezuela.[55] (Voyage Instructions,

[55] The voyage instructions further stated:

> Advise ETA upon departure loadport then 96/72/48/24 hours prior to the arrival to agent. Any delays due to this notification not being given, may be for owners account.
>
> Initial message to include:
>
> A) ETA (date and hour in local time)
>
> B) Manifest quantities
>
> C) No sickness/pratique
>
> D) Arrival draft in feet – freshwater

Ex. P-360). This 37-foot restriction was consistent with the draft restrictions on the Maracaibo Channel, through which the Athos I was required to pass to leave Venezuela and reach the Caribbean Sea.

73. Captain Markoutsis, the Captain of the Athos I, decided to load the vessel to a draft of 36 feet, 6 inches to ensure safe passage through the Maracaibo Channel. (Markoutsis Tr., 198:18-199:3, 200:7-201:13, Oct. 13, 2010.)

74. On November 19, 2004, Chief Mate Georgios Zotos ("Chief Mate Zotos") was in charge of loading the Athos I. He loaded the Athos I to a draft of 36 feet, 6 inches.[56] (Zotos Tr., 40:11-41:2, Sept. 27, 2010.)

75. Expert witnesses presented by Frescati and CARCO agreed that the Athos I was loaded to a draft of 36 feet, 6 inches at Puerto Miranda based upon documentation and loading computer data from the vessel. Frescati's expert witness, Anthony Bowman ("Mr. Bowman"), determined that the Athos I had a fresh water departure draft of 36 feet, 6 inches.[57]

Please copy Citgo on your 96 hr. notice to the National Vessel Movement Center so that Citgo will have a copy of the vessel security certificate.

(Voyage Instructions, Ex. P-360.)

[56] Chief Mate Zotos was the chief mate of the Athos I at the time of the casualty. He testified at the first trial. He was unavailable to testify at the Rule 63 rehearing. His testimony is considered only for limited purpose of determining the Athos I's loading draft at Puerto Miranda, and how the tanks were monitored before the Athos I reached the entrance to the Delaware Bay.

[57] Mr. Bowman is a salvage naval architect who spent over 35 years investigating marine casualties, primarily involving large vessels. (Bowman Tr., 3:24-6:7, Mar. 9, 2015.) Prior to becoming a naval architect, Mr. Bowman received his second mate's license

(Bowman Tr., 164:7, 165:2-4, 166:1-4, Mar. 9, 2015.) Similarly, CARCO's expert witness, George Petrie ("Mr. Petrie"), calculated that the Athos I's departure draft was 36 feet, 6 inches. (Petrie Tr., 21:6-17, Apr. 13, 2015.)

ii. Athos I's Passage from Puerto Miranda, Venezuela, to the Entrance to Delaware Bay

76. On November 20, 2004, the Athos I left Puerto Miranda and passed through the Maracaibo Channel at high tide. (Markoutsis Tr., 82:24-83:19, Oct. 14, 2010.)

77. The Athos I crew used the vessel's echo sounder to ensure that there was sufficient underkeel clear-

---

in the United Kingdom and worked as a deck officer on large tankers. (Bowman Tr., 29:9-30:7, Mar. 9, 2015.) In 1979, Mr. Bowman founded a firm called Technical Marine Consultants ("TMC Marine"), and created the Seamaster software program. (Bowman Tr., 28:10-12, 41:17-19, Mar. 9, 2015.) The Seamaster program has been approved by Lloyd's Register of Shipping and other classification societies for use in calculating a ship's loading conditions and draft. (Bowman Tr., 41:10-19, 42:12-21, Mar. 9, 2015.) It works by entering all of the weights and centers of gravity for a particular vessel (such as the weight of the ship itself, the weight of the cargo, the weight of the fuel, etc.) and then "calculates the drafts of the ship, its stability, and how much reserve strength it would have in that condition, knowing the structure of the vessel." (Bowman Tr., 17:22-18:10, Mar. 9, 2015.) Mr. Bowman explained how he used the Seamaster software program to accurately recreate how the Athos I casualty occurred. (Bowman Tr., 17:22-18:10, Mar. 9, 2015.) As explained more fully below, Mr. Bowman established that the Athos I's arrival draft at Paulsboro was 36 feet, 7 inches. (Bowman Tr., 157:7-10, Mar. 9, 2015.)

ance to traverse the Maracaibo Channel safely.[58] (Markoutsis Tr., 201:14-202:15, Oct. 13, 2010.)

78. After passing through the Maracaibo Channel, the Athos I traveled to the entrance to the Delaware Bay. This voyage took approximately six days. (Athos I Bridge Log, Ex. P-1615.)

79. During the transit, a pump man monitored the oil cargo tanks and the ballast tanks daily.[59] (Zotos Tr., 50:17-23, Sept. 27, 2010.) There was no water in the ballast tanks. (Zotos Tr., 52:3-9, 52:20-23, Sept. 27, 2010.)

---

[58] An echo sounder is a device located on the hull of a ship that is used to determine the depth of the water underneath the ship. It measures underkeel clearance. Underkeel clearance is the minimum vertical distance between the lowest point of a ship's hull and the river bottom at a given location. Echo sounders work by transmitting sound pulses into the water that bounce off the riverbed, thereby measuring the distance between the hull and the river bottom.

[59] A ballast system allows a vessel to pump water in and out of large tanks to compensate for a change in cargo load, shallow draft conditions, or weather. The Athos I's ballast system is known as a segregated ballast system. (Bowman Tr., 59:6-20, Mar. 10, 2015.) This means it is "completely separated from the cargo pipeline system." (Bowman Tr., 59:9-11, Mar. 10, 2015.) It takes its water "from the sea," through "[t]he sea chest valve, [ ] which is based next to the side of the ship." (Bowman Tr., 59:12-16, Mar. 10, 2015.) To bring water into a ballast tank, "[o]n this vessel you would have to open four valves to allow water to come into a ballast tank." (Bowman Tr., 59:17-20, Mar. 10, 2015.) The tanks on the Athos I are numbered and labeled based on their location on the ship. For instance, one ballast tank is labeled "Number Four Starboard," while another is called "Number Seven Port." Each tank is quite large. For example, the Number Six Port ballast tank of the Athos I was approximately 63 feet deep, 70 feet long, and 12 feet wide. (Hall Tr., 150:7-16, Mar. 4, 2015.)

80. On November 25, 2004, the day before the Athos I arrived at the entrance to the Delaware Bay, the ballast tanks were sounded and were found to be empty.[60] (Zotos Tr., 51:18-52:23, Sept. 27, 2010.)

81. The voyage from Venezuela to the Delaware Bay was uneventful. Nothing occurred during transit that contributed to the casualty.

iii. Draft of the Athos I at the Entrance to Delaware Bay

82. On November 26, 2004, the Athos I arrived at the entrance to the Delaware Bay.

83. The Athos I had burned fuel to sail from Venezuela to the Delaware Bay. (Bowman Tr., 6:11-19, Mar. 10, 2015.) By burning fuel, the vessel became lighter, meaning that the "vessel would have risen in the water." (Bowman Tr., 20:15-23, Mar. 10, 2015.) During the voyage, fresh water stored on the vessel was consumed. (Bowman Tr., 6:11-19, Mar. 10, 2015.) As a result, the Athos I's mean draft was reduced by approximately 2 inches, to 36 feet, 4 inches.[61] (Bowman Tr., 7:21-8:22, Mar. 10, 2015.) Mr. Bowman calculated this change based on the engine room log book in which a record is kept of the amount of fresh

---

[60] Ballast tanks are "sounded" or measured to confirm the amount of water present in each tank. "Sounding" is the measure of distance from a sounding pad on the bottom of the tank to the water level in the tank. "Ullage" is essentially the distance from the top of the tank down to the water level.

[61] A ship has different drafts. First, there is a forward draft, which is measured at the bow of the ship. Second, there is an aft draft, which is measured at the stern of the ship. Third, there is a mean draft, which is obtained by making a calculation of the average of forward and aft drafts on the port and starboard sides of the ship, with corrections, if necessary, for list.

water and fuel the vessel consumes. (Bowman Tr., 7:9-11, Mar. 10, 2015.)

84. As a result of consuming fuel and fresh water during its voyage, the Athos I had a draft of about 36 feet, 4 inches when it reached the entrance to the Delaware Bay. (Bowman Tr., 7:21-8:22, Mar. 10, 2015.)

85. At that point, the Athos I was no longer sailing at an even keel. (Bowman Tr., 9:7-12, Mar. 10, 2015.) Rather, the Athos I was "trimmed by the bow," meaning that the bow or front of the ship was deeper in the water than the stern or rear of the ship. (Bowman Tr., 9:7-12, 9:22-25, Mar. 10, 2015.) The change in trim was due to the consumption of fuel and water from tanks that were located on the rear of the ship. (Bowman Tr., 9:9-12, Mar. 10, 2015.)

86. The Athos I took on approximately 510 metric tons of ballast water to restore it to an even keel. (Bowman Tr., 10:1-7, 12:25, Mar. 10, 2015.)

87. After taking on the 510 metric tons of ballast, the Athos I had a sailing draft of 36 feet, 7 inches. (Bowman Tr., 157:7-10, Mar. 9, 2015; 14:10-15, Mar. 10, 2015.)

88. The Athos I did not take on extra ballast (beyond the 510 metric tons) during the voyage to CARCO's berth. (Bowman Tr., 61:8-16, Mar. 10, 2015.)

iv. Athos I's Voyage from the Entrance to Delaware Bay to Billingsport Range

89. On the morning of November 26, 2004, Captain Howard Teal, Jr. ("Captain Teal") was designated as

the Delaware River Pilot for the Athos I's transit up the Delaware River.[62]

90. Captain Teal was assigned to sail the Athos I on the Delaware River until the vessel reached Billingsport Range, which is a section of the Delaware River Channel not far from CARCO's Paulsboro berth area.[63] The transit from Cape Henlopen to CARCO's

---

[62] Captain Teal is a Delaware Bay and River Pilot. (Teal Tr., 40:4, Mar. 16, 2015.) He was originally trained in the Coast Guard to navigate the Delaware Bay and its surrounding waterways, and has received federal and state licenses as a first class pilot to navigate these waterways. (Teal Tr., 41:14-42:20, Mar. 16, 2015.) He has over 40 years of experience piloting large ships up the Delaware River. (Teal Tr., 40:6, Mar. 16, 2015.) He has piloted approximately 4,000 ships up the Delaware River. (Teal Tr., 42:24-43:2, 133:9-16, Mar. 16, 2015.) He has piloted vessels that had final destinations at Paulsboro around 50 times, including several Panamax-size vessels. (Teal Tr., 43:6-13, 55:13-17, Mar. 17, 2015.) For these reasons, he has extensive knowledge of the Delaware River. He knows how to read the tides and the weather conditions, and how these elements might affect the transit of a large ship such as the Athos I.

On November 26, 2004, Captain Teal boarded the Athos I and piloted the ship up river to Paulsboro, where he was relieved of his duty. (Teal Tr., 82:3-10, Mar. 16, 2015.) He knew that the ship's arrival draft would be 36 feet, 6 inches, even keel, fresh water. (Teal Tr., 52:4-18, Mar. 16, 2015.) As he transited up river, he observed the tide from physical markers along the shoreline and in the channel. (Teal Tr., 150:5-6, Mar. 16, 2015.) He noticed that the tide was falling at the beginning of his transit, and that the tide was slowly rising by the time the vessel reached Paulsboro. (Teal Tr., 153:4-154:6, Mar. 16, 2015.) Teal believed that the ship would arrive safely in Paulsboro.

[63] After reaching the Billingsport Range, a Delaware River Docking Pilot would board the ship and sail it from the Billingsport Range to the Mifflin Range, where the docking pilot would then begin the maneuver to dock the ship at CARCO's Paulsboro berth.

Paulsboro facility is approximately 80 miles and takes about eight hours to complete. (Teal Tr., 40:13-16, 148:11-13, Mar. 16, 2015.)

91. On November 26, 2004, around 12:15 p.m., Captain Teal boarded the Athos I. (Teal Tr., 67:20-23, Mar. 16, 2015.) Captain Teal planned on navigating the Athos I entirely within the Delaware River Channel, which has a project depth of 40 feet Mean Lower Low Water ("MLLW").

92. Before stepping onto the loading craft to board the Athos I, Captain Teal checked the tide gauges on the dock at Cape Henlopen. He observed that the tide "looked normal." (Teal Tr., 58:21-59:1, Mar. 16, 2015.)

93. Upon boarding, Captain Teal went to the bridge and met with Captain Markoutsis. (Teal Tr., 48:2-4, 51:12-52:18, Mar. 16, 2015.) They had a discussion, which he referred to as a master-pilot exchange, during which they talked about the transit up river. (Teal Tr., 51:12-52:18, 160:11-15, Mar. 16, 2015.) They discussed information including the anticipated arrival draft, wind, visibility, and tides. (Teal Tr., 51:12-52:18, 160:11-15, Mar. 16, 2015.) Captain Markoutsis informed Captain Teal that the Athos I's draft was "36 feet, 6 inches, even keel, fresh water." (Teal Tr., 52:4-18, Mar. 16, 2015.) This was the draft that Captain Markoutsis anticipated the Athos I would have when it arrived at CARCO's Paulsboro facility. (Teal Tr., 135:23-136:2, Mar. 16, 2015.) Captain Teal signed a pilot card indicating the draft and other conditions of the Athos I. (Teal Tr., 59:10-23, Mar. 16, 2015; Pilot Card, Ex. P-466.)

94. More specifically, in reference to the master-pilot exchange he had with Captain Markoutsis, Captain Teal stated that they "talked about the

normal, my master-pilot relationship and points that we needed to discuss to take the ship up the river." (Teal Tr., 51:19-21, Mar. 16, 2015.) He and Captain Markoutsis talked about "[w]ind, visibility, expected meeting of other vessels, the tides and the current situation here and what they would be expected to be upon arrival in Mantua." (Teal Tr., 51:23-52:1, Mar. 16, 2015.) Captain Teal also stated that he and Captain Markoutsis "discussed the functioning of the ship [,] . . . the systems, the function of the ship, the weather, the available tide concerning the draft, the panamax advisory of the ship and decided that we could go and did go and made a successful transit." (Teal Tr., 160:11-15, Mar. 16, 2015.)

95. Captain Teal informed Captain Markoutsis that he expected the Athos I would have about 1.5 to 3 meters (approximately 4 feet, 11 inches to 9 feet, 10 inches) of underkeel clearance during the transit. (Teal Tr., 53:19-22, Mar. 16, 2015.) Captain Teal explained that both he and Captain Markoutsis knew "that there was a necessary underkeel clearance for every ship that goes up the river," and took this into consideration in planning the transit up river. (Teal Tr., 164:17-19, Mar. 16, 2015.) He explained that in their exchange, clearance meant that "there would be sufficient water to take the ship to Philadelphia and have a clearance acceptable to the company to do that." (Teal Tr., 54:4-7, Mar. 16, 2015.)

96. Captain Teal stated that, in his discussions with Captain Markoutsis, one of the first things the men determined was "that the draft of the ship on arrival at the terminal, near the terminal, would be 36 feet, 6 inches, even keel." (Teal Tr., 135:23-136:2, Mar. 16, 2015.)

97. Captain John Betz ("Captain Betz") explained the type of activity that constitutes an adequate master-pilot exchange.[64] (Betz Tr., 22:20-23:4, Mar. 18, 2015.) In discussing what a river pilot normally does upon boarding a ship, he stated that, "when a pilot goes out to a ship, you know, he has got an idea possibly of things like draft, what type of ship it is. But once he gets aboard the ship, one of the first things you want to do is confirm the draft. That is the first thing. Usually they will give you a pilot card, and that will have information that you can review. But you also want to—the primary information you want is draft, confirmation of the draft and confirmation of the status of the machinery and the condition of the vessel." (Betz Tr., 22:20-23:4, Mar. 18, 2015.) By machinery, Captain Betz was referring to "primarily the propulsion equipment." (Betz Tr., 23:7-11, Mar. 18, 2015.)

98. Master-pilot exchanges occur to ensure the safe transit of the vessel.

99. Captain Betz opined that the master-pilot exchange between Captain Markoutsis and Captain

---

[64] Captain Betz is a qualified pilot, master mariner, and expert in the areas of navigation, seamanship, and safety, particularly in transit of loader tankers under pilotage. (Betz Tr., 4:2-8, 19:3-7, Mar. 18, 2015.) For thirteen years, Captain Betz has worked as a harbor pilot in the port of Los Angeles. (Betz Tr., 144:4-8, Mar. 17, 2015.) He has worked in the maritime industry for 39 years. He holds a master's license and a first class pilot's license. (Betz Tr., 147:21-148:8, Mar. 17, 2015.) He has handled hundreds of ships of the Athos I's size, and currently pilots anywhere from 320 to 420 ships each year. (Betz Tr., 153:15-16, 154:2-9, Mar. 17, 2015.) After watching Captain Teal and Captain Joseph Bethel, the docking pilot, testify, Captain Betz concluded that their exchanges with Captain Markoutsis were adequate and that they conducted themselves properly when piloting the Athos I. (Betz Tr., 22:8-23:4, 26:1-27:16, 47:3-23, Mar. 18, 2015.)

Teal was adequate and appropriate. (Betz Tr., 22:16-23:4, 26:12-27:16, Mar. 18, 2015.) Captain Betz noted one exchange that contributed to his opinion that the master-pilot exchange was adequate: "[Captain Teal] had a discussion. He obtained the draft, confirmed the draft with the Captain. And he told the Captain that they were going to be running against a low tide or an outgoing tide and that he expected when the ship arrived up where they were going to board the docking pilot, that the tide at that point would be flooding and starting to rise." (Betz Tr., 26:12-18, Mar. 18, 2015.)

100. Captain Betz testified that it was not customary for a river pilot to review the wheelhouse poster or the voyage plan during the master-pilot exchange.[65] (Betz Tr., 24:4-19, Mar. 18, 2015.)

101. Based on the testimony of Captain Teal and Captain Betz, and a review of the pilot card, there was a sufficient master-pilot exchange.

102. Captain Teal estimated that he took control as the ship's pilot (referred to as taking the "conn") within five minutes or so of his discussion with Captain Markoutsis. (Teal Tr., 68:15-17, Mar. 16, 2015.)

---

[65] A wheelhouse poster is a poster that is typically displayed in the wheelhouse of a ship. It contains "general particulars and detailed information describing the [maneuvering] characteristics of the ship, and [is] of such a size to ensure ease of use." IMO Resolution A.601(15)(3.2). The IMO Resolution further provides that the maneuvering performance of a ship "may differ from that shown on the poster due to environmental, hull and loading conditions." *Id.*

Moreover, although a voyage plan was made after the casualty, the timing of its preparation and its content does not raise any credible inference about the cause of the allision.

103. At approximately 12:30 p.m., Captain Teal started piloting the Athos I up the Delaware River. (Teal Tr., 71:4-8, Mar. 16, 2015.) Weather conditions during the transit were good, and visibility was "crystal clear." (Teal Tr., 71:4-21, Mar. 16, 2015.)

104. Captain Teal expected that, by the time the Athos I arrived at Billingsport Range, there would be a rising tide and a slack flood current.[66] (Teal Tr., 62:21-63:24, 153:15-21, Mar. 16, 2015.)

105. Captain Teal observed the tides as he piloted the Athos I on the Delaware River. (Teal Tr., 71:22-73:9, Mar. 16, 2015.) He used several fixed markers and shoals to get an idea of how the tide was moving. (Teal Tr., 72:8-73:2, 150:5-6, Mar. 16, 2015.) He also looked at the tide books to predict the tides for the transit. (Teal Tr., 142:10-11, Mar. 16, 2015.) As he piloted the Athos I up river, he considered the tide to be a "normal falling tide." (Teal Tr., 73:7-9, Mar. 16, 2015.) Although the falling tide or ebb current was with the ship for most of the transit, the tide caught up with the Athos I as it progressed up river. (Teal Tr., 148:20-21, Mar. 16, 2015.) By the time Captain Teal was relieved of his piloting duties, the tide had started to flood. (Teal Tr., 79:13-20, Mar. 16, 2015.)

106. Captain Teal did not experience any problems with squat as he piloted the vessel up river.[67] (Teal Tr., 61:12-62:10, Mar. 16, 2015.)

---

[66] Slack water is "the period at the turn of the tide when there is little or no horizontal motion of tidal water." *Merriam-Webster's Collegiate Dictionary* (11th ed. 2004).

[67] Squat is a hydrodynamic phenomenon, which occurs when a ship is moving through the waters. (Bergin Tr., 65:14-66:10, Apr. 14, 2015.) As a ship moves forward, it displaces a volume of water. (*Id.*) The displaced water rushes under the keel of the ship and

107. The transit along the Delaware River was uneventful. (Teal Tr., 77:8-21, Mar. 16, 2015.)

108. On November 26, 2004, around 8:25 p.m., Docking Pilot Joseph Bethel ("Captain Bethel") boarded the Athos I at the "upper end of Tinicum Range," which is just south of Billingsport Range.[68] (Bethel Tr., 33:23, 34:14-20, Mar. 17, 2015; British Admiralty Chart 2604, Ex. P-461.) Just as Delaware River Pilots are required to transit a vessel up the Delaware River, Delaware River Docking Pilots are needed to perform a vessel's docking maneuver. Del.

---

creates a low pressure area causing the ship to sink down toward the riverbed. (*Id.*) The faster a ship is moving, the more the ship will sink down towards the riverbed. (*Id.*) This process causes a ship to be closer to the riverbed by increasing a vessel's draft. (*Id.*)

[68] Captain Bethel is an experienced ship-docking pilot for the Docking Pilots Association of Pennsylvania. He has approximately 17 years of experience as a docking pilot on the Delaware River. (Bethel Tr., 30:11-15, Mar. 17, 2015.) He comes from a family of ship-docking pilots. (Bethel Tr., 28:17-23, Mar. 17, 2015.) He holds several federal licenses, including a "1600-ton masters license [and a] first class pilot's license of any gross ton from marker 42 in the Delaware Bay to Newbold Island." (Bethel Tr., 27:11-13, Mar. 17, 2015.) The Paulsboro berth area is located within this range. Prior to the Athos I oil spill, Captain Bethel had docked about twenty large ships at CARCO's Paulsboro terminal. (Bethel Tr., 31:1-4, Mar. 17, 2015.)

In his testimony, Captain Bethel explained that he arrived on the Athos I, discussed docking procedures with Captain Teal, Captain Markoutsis, and an apprentice, and decided it was the appropriate time to begin the approach to CARCO's berth. (Bethel Tr., 41:1-43:3, Mar. 17, 2015.) He observed the rising tide and knew that the anticipated draft was 36 feet, 6 inches, even keel, fresh water. (Bethel Tr., 42:8, 47:18-48:10, Mar. 17, 2015.) He did not observe anything improper with the ship's condition. (Bethel Tr., 69:11-19, Mar. 17, 2015.)

Code Ann. tit. 23, § 121(a). Captain Bethel was responsible for piloting the Athos I from the Delaware River Channel to CARCO's Paulsboro berth. (Bethel Tr., 32:7-14, Mar. 17, 2015.)

v. Athos I's Passage from Billingsport Range into Federal Anchorage Number Nine

109. Upon boarding, Captain Bethel spoke to Captain Teal about the Athos I. (Bethel Tr., 38:12-16, Mar. 17, 2015.) The two discussed the draft of the ship, which Captain Teal indicated was 36 feet, 6 inches, even keel, fresh water. (Bethel Tr., 39:2-7, Mar. 17, 2015.) They spoke about the vessel's condition, handling, and speed. (Bethel Tr., 38:12-16, Mar. 17, 2015; Teal Tr., 80:1-8, Mar. 16, 2015.) They also discussed the "telegraph order of the ship at [that] moment."[69] (Teal Tr., 80:1-8, Mar. 16, 2015.) Their exchanges were sufficient to allow Captain Bethel to dock the vessel. (Betz Tr., 27:13-16, 47:8-9, Mar. 17, 2015.)

110. Captain Bethel took over piloting the ship within a few minutes of this exchange with Captain Teal. (Teal Tr., 88:15-17, Mar. 16, 2015.)

111. Captain Bethel testified that the Athos I's navigational equipment was functioning properly, the propulsion system was working, and that the crew was performing well. (Bethel Tr., 69:11-19, Mar. 17, 2015.)

112. To decide on the docking maneuver for the Athos I, Captain Bethel needed to determine what the tide was doing. First, before boarding the vessel, he looked at the tide booklet from the Docking Pilots

[69] A telegraph is "[a] mechanical or electrical device for signaling from one part of a ship to another, as from the engine room to the bridge." *Black's Law Dictionary* 1692 (10th ed. 2014).

Association, which stated that the predicted flood current should start somewhere around 8:45 p.m. to 8:50 p.m. (Bethel Tr., 36:5-9, Mar. 17, 2015.) Second, he observed the tides. (Bethel Tr., 35:3-9, 36:15-17, Mar. 17, 2015.) He looked at the piers, the buoys, and the shoals as he boarded the Athos I and saw that there was a flood current. (Bethel Tr., 35:15-22, 36:12-17, Mar. 17, 2015.) He determined that the tide was rising and that there was a normal flood current. (Bethel Tr., 36:15-37:3, Mar. 17, 2015.) When he began to maneuver the Athos I into the Anchorage to dock the ship, he confirmed by visual observation that the flood was occurring for about one hour and the tide was rising. (Bethel Tr., 47:22-48:10, Mar. 17, 2015.)

113. Vincent Capone ("Mr. Capone"), an expert in hydrography, confirmed that the tide was rising when Captain Bethel made this determination.[70] (Capone

---

[70] Mr. Capone is an expert who testified about hydrographic surveys of the Delaware River, the cost of performing side-scan sonar surveys, and the height of the tide when the allision occurred. (Capone Tr., 191:21-192:10, Mar. 18, 2015.) He has over thirty years of experience as a hydrographer. (Capone Tr., 176:11-13, Mar. 18, 2015.) Not only has he conducted hundreds of single-beam, multi-beam, and side-scan sonar surveys along the Delaware River, he has also performed these types of surveys around the world. (Capone Tr., 178:6-20, 179:3-4, Mar. 18, 2015.) In performing single-beam surveys, Capone maps the river bottom and charts controlling (shallowest) depths for his clients. (Capone Tr., 179:16-180:11, Mar. 18, 2015.) He also has performed a minimum of 75 side-scan sonar surveys on the Delaware River, searching for debris, containers, and anchors. (Capone Tr., 179:5-15, Mar. 18, 2015.) Using predicted and actual tides along the river (or other waterway), Capone calculates the shallowest depths in his client's survey areas. He is very knowledgeable on these subjects and instructs the United States Navy, United States naval allies, and international companies on the use of

Tr., 222:15-19, Mar. 18, 2015.) Mr. Capone concluded that the tide had been rising "roughly 50 minutes to [one] hour" in Federal Anchorage Number Nine. (Capone Tr., 222:14-19, Mar. 18, 2015.) He came to this conclusion by looking "at the low tide in Philadelphia, the actual low tide as designated by the primary recording tide station, saw when the low tide occurred in Philadelphia, then used the NOAA relationship between Philadelphia and Billingsport to determine when low tide occurred approximately" in Federal Anchorage Number Nine. (Capone Tr., 222:21-223:1, Mar. 18, 2015.) Although his conclusion about the length of time the flood was rising in the Anchorage exceeded the time that it would be rising based on the start of the predicted tide in the booklet of the Docking Pilots Association, both sources confirmed the tide was rising before Captain Bethel began the docking maneuver.[71]

114. Captain Bethel knew that to dock the Athos I at CARCO's Paulsboro berth, he would need to steer the ship from the Delaware River Channel through Federal Anchorage Number Nine before reaching the berth area. (Bethel Tr., 45:23-46:8, Mar. 17, 2015.) In addition, the ship needed to be turned 180°> so that

---

hydrographic and sonar survey equipment. (Capone Tr., 190:2-25, Mar. 18, 2015.)

[71] Captain Teal and Captain Bethel observed that the tide was already rising. (Teal Tr., 211:22-23, Mar. 16, 2015; Bethel Tr., 36:12-17, 37:1-3, 47:22-48:10, 49:24-55:21, Mar. 17, 2015.) A surveillance video of the Athos I recorded at CARCO's berth before and at the time of the allision shows that the lighting from the Athos I, and from Philadelphia International Airport directly across the river, illuminated the area, visibly displaying the tide and the current. (CARCO Dock Surveillance Video, Ex. P-1215.) Despite the time of day, given the lighting conditions, the pilots could observe the rising tide.

its port side would dock at the wharf. As the Third Circuit explained, "a tanker of the Athos I's size would come up the River, make a starboard (right) 180° turn into the Anchorage, and would then be pushed sideways by tugs (i.e., parallel parked) into CARCO's pier." *In re Frescati*, 718 F.3d at 192. This docking maneuver would allow the Athos I's port side to be tied up on the dock. (Bethel Tr., 45:20-46:8, Mar. 17, 2015.) Captain Bethel followed this docking maneuver when attempting to bring the Athos I into CARCO's Paulsboro berth.[72] (Bethel Tr., 45:23-46:8, Mar. 17, 2015.)

115. As Captain Bethel began the docking maneuver, the Athos I was even keel and was not listing to one side. (Bethel Tr., 51:2-3, 52:16, Mar. 17, 2015.)

116. The Athos I began its final approach into CARCO's Paulsboro berth by starting the docking maneuver. (Bethel Tr., 45:23-46:8, Mar. 17, 2015.)

117. The Athos I made a starboard turn. (Bethel Tr., 45:23-46:8, Mar. 17, 2015.)

118. As the Athos I was making the turn, tugs began to slowly push the Athos I across Federal Anchorage Number Nine to CARCO's Paulsboro berth. As this occurred, the ship's speed was "just about dead in the water." (Bethel Tr., 51:24-25, Mar. 17, 2015.)

vi. The Casualty

119. On November 26, 2004, at 9:02 p.m., as the tugs pushed the Athos I across Federal Anchorage Number Nine, Captain Bethel felt the vessel begin to list about five to seven degrees. (Bethel Tr., 57:2-5, Mar. 17, 2015.) The engines automatically shut off,

---

[72] The triangular-shaped berth area in front of CARCO's dock is not large enough for the 748-foot long Athos I to rotate 180°.

and he saw oil in the water. (Bethel Tr., 58:7-8, 62:3-10, Mar. 17, 2015.) At this point, the Athos I was approximately halfway through Federal Anchorage Number Nine, and only 900 feet away from CARCO's berth. *In re Frescati*, 718 F.3d at 192.

120. Captain Bethel immediately eased off the tugs and anchored the ship as the crew attempted to stop the leak. (Bethel Tr., 60:25-61:5, Mar. 17, 2015.)

121. Captain Bethel called the Coast Guard to alert them to the emergency and requested that an oil spill response team arrive as soon as possible. (Bethel Tr., 59:10-22, Mar. 17, 2015.)

122. Captain Markoutsis rushed down to the engine room and began transferring cargo from the cargo tank that was breached into another tank that could hold extra oil. (Bethel Tr., 63:3-10, Mar. 17, 2015.)

123. The Athos I crew was able to stop the oil from leaking into the Delaware River. (Markoutsis Tr., 44:6-46:10, Oct. 14, 2010.)

124. In the immediate aftermath of the casualty, it was unclear what the Athos I had encountered to cause the oil spill.

E. Investigating the Casualty

i. Locating the Anchor

125. It was later discovered that the Athos I had struck an abandoned steel anchor that was on the riverbed in Federal Anchorage Number Nine. The allision with the anchor caused the oil spill.

126. After the casualty, John Fish ("Mr. Fish"), an underwater search and surveyor, was asked to search

for obstructions around the accident site.[73] (Fish Tr., 183:4-6, Mar. 19, 2015.) On December 4, 2004, he conducted a survey of Federal Anchorage Number Nine using side-scan sonar. (Fish Tr., 140:20-24, 184:2-5, Mar. 19, 2015.) Mr. Fish detected what would later be identified as the anchor on his first survey run, but did "several dozen[ ] if not more" scans to ensure the identity of the obstruction. (Fish Tr., 140:20-24, 188:5-12, Mar. 19, 2015.)

127. In surveying the site, Mr. Fish also located "several concrete blocks and . . . a centrifugal pump casing" in the Anchorage. (Fish Tr., 189:2-3, Mar. 19,

---

[73] Mr. Fish is an underwater surveyor. (Fish Tr., 140:10-142:11, Mar. 19, 2015.) He testified as an expert sonographer in the use of side-scan sonar technology and in the use and interpretation of side-scan sonar data in underwater search and survey work. (Fish Tr., 180:23-182:10, Mar. 19, 2015.) He has over forty years of experience as an underwater surveyor, particularly in the field of side-scan sonar technology. (Fish Tr., 143:8-9, Mar. 19, 2015.) Mr. Fish has reviewed "tens of thousands" of side-scan sonar images as part of his work detecting underwater objects. (Fish Tr., 148:14-21, Mar. 19, 2015.) He has consulted with the United States Navy in the application of GPS data to side-scan sonar. (Fish Tr., 146:8-15, Mar. 19, 2015.) He has worked with the National Transportation Safety Board on overwater airline casualties, including John F. Kennedy, Jr.'s tragic accident off the coast of Martha's Vineyard. (Fish Tr., 149:13-150:3, Mar. 19, 2015.) Not only has he worked with the United States Government, Mr. Fish has also worked with governments of other countries in underwater search operations, including China, Taiwan, Switzerland, Iceland, Tunisia, Japan, England, and Singapore. (Fish Tr., 150:5-12, Mar. 19, 2015.) In addition to his survey work, Mr. Fish has published two textbooks on side-scan sonar technology. (Fish Tr., 150:13-151:19, Mar. 19, 2015.) During the Rule 63 proceeding, Mr. Fish explained how side-scan sonar surveys are conducted. He also explained the methods used to detect and identify the anchor that caused the Athos I's holing.

2015.) These objects did not cause the accident on November 26, 2004.

128. On January 17, 2005, the anchor was exhumed and examined. (Crosson Tr., 30:7-10, Mar. 25, 2015.) It weighed approximately nine tons and measured 6 feet, 8 inches long, 7 feet, 3 inches wide, and 4 feet, 6 inches high. *In re Frescati*, 718 F.3d at 192.

129. The anchor has two natural stable positions, either in a "flukes-up" or "flukes-down" orientation, because it has a low center of gravity.[74] (Ratcliffe Tr., 166:2-11, 167:4-7, Mar. 12, 2015; Bowman Tr., 138:9-18, Mar. 10, 2015; *see also* Appendix (Ex. "B-1," "B-2," "B-3") (D-2022, D-1913).) In the "flukes-up" orientation, the anchor is standing on its crown and its flukes are pointed upward at a 65° angle. (Bowman Tr., 140:4-19, Mar. 10, 2015; *see* Appendix (Ex. "B-3".) In this position, the tips of the flukes will be approximately 7 feet above the riverbed. (Bowman Tr., 140:4-19, Mar. 10, 2015; *see also In re Frescati*, 718 F.3d at 192.) In the "flukes-down" orientation, the crown and flukes of the anchor are both lying essentially in a horizontal position on the riverbed. (Traykovski Tr.,

---

[74] Doctor Alan Ratcliffe ("Dr. Ratcliffe") has worked as a naval architect for over thirty-five years. (Ratcliffe Tr., 87:25-88:24, Mar. 12, 2015.) He specializes in the investigation of steel structures and the movements of ships under various forces. (Ratcliffe Tr., 87:25-88:24, Mar. 12, 2015.) Dr. Ratcliffe helped create the Seamaster software program, which Mr. Bowman used to calculate the Athos I's arrival draft. (Ratcliffe Tr., 113:12-23, Mar. 12, 2015.) Dr. Ratcliffe also created the Optimoor software program, which is used to calculate the forces necessary to move the Athos I along its directed path. (Ratcliffe Tr., 109:4-6, Mar. 12, 2015.) Dr. Ratcliffe is one of the few experts who possess expertise in both engineering and software development as applied to naval salvage and architecture. (Ratcliffe Tr., 95:17-20, Mar. 12, 2015.)

56:11-20, Mar. 30, 2015; *see* Appendix (Ex. "B-1," "B-2".) In this position, the palms are the highest point on the anchor, and reach a maximum height of approximately 41 inches (3 feet, 5 inches) above the riverbed.

130. The owner of the anchor has never been identified. *In re Frescati*, 718 F.3d at 193.

ii. Anchor's Pre-Incident Orientation

131. The parties stipulated that the anchor had been in Federal Anchorage Number Nine for at least three years prior to the casualty "because it was detectable from a sonar scan performed by the University of Delaware in 2001 as part of an independent geophysical study." *Id.* at 193.

132. In the sonar images from the University of Delaware study, the anchor appears to be in the "flukes-down" position. (Traykovski Tr., 56:11-20, Mar. 30, 2015.) With this orientation, the anchor reached a maximum height of approximately 41 inches above the riverbed. (Traykovski Tr., 57:8-11, Mar. 30, 2015; University of Delaware Survey Image dated August 15, 2001, Ex. D-1494.)

133. In the "flukes-up" position, the anchor would have reached a maximum height of approximately 7 feet above the riverbed. At some point before the casualty, the anchor moved from a "flukes-down" position to a "flukes-up" orientation. (Bowman Tr., 127:20-128:1, Mar. 9, 2015.)

134. From 1997 to 2004, 673 vessels anchored in Federal Anchorage Number Nine. (Rankine Tr., 62:14-64:3, May 27, 2015; Ex. D-2042.) From 2001 to 2004, 241 of those vessels went to CARCO's Paulsboro berth. (Rankine Tr., 64:8-71:4, May 27, 2015; Ex. D-1859).

With hundreds of ships anchoring in Federal Anchorage Number Nine from 1997 to 2004, which even includes the period after 2001, a vessel's sweeping anchor chain could have caught and moved the submerged anchor into an upright position.[75] Regardless of the number of ships drafting 37 feet or less that passed through the Anchorage to dock at CARCO's berth, there still remained the fact that movement on the riverbed caused the anchor to shift to a "flukes-up" position. Although the actual cause of the anchor's movement to a "flukes-up" position will never be known, the Court finds that at some point after December 2001, this movement occurred and the anchor was positioned in a "flukes-up" orientation when it allided with the Athos I.[76]

iii. Anchor's Post-Incident Orientation

135. After the casualty, the anchor was found in the "flukes-down" position. (Fish Tr., 205:20-22, Mar. 19, 2015.) It reached a height of approximately 39 inches above the riverbed. (Fish Tr., 205:20-22, Mar. 19, 2015.)

---

[75] *See* Appendix (Ex. "D") for a photograph showing an example of a "scour line" on the surface of the riverbed in Federal Anchorage Number Nine. (Ex. P-1191.) A scour line is a displacement of the sediment on the riverbed by a swift moving object. It can be caused by swift moving water or an object being dragged along the river bottom, or as in this case, by oil from the moving ship. Exhibit "D" shows a scour line at the top of the picture, which was taken in 2001. No evidence was offered on what condition caused this scour line to appear on the riverbed.

[76] On May 5, 2015, this Court personally inspected the exhumed anchor and the excised portion of the Athos I's hull, which contained the two holes made by the anchor when it allided with the hull. These objects were stored at the Coast Guard Station in Baltimore, Maryland.

136. It was found approximately 10 feet from the location of the casualty. (Traykovski Tr., 63:25-64:12, Mar. 30, 2015; Fish Tr., 68:16-19, Mar. 20, 2015.)

iv. Athos I's Allision with the Anchor

137. The abandoned anchor pierced the Athos I's hull, making two holes—a long hole and a round hole. (Crosson Tr., 14:22-16:16, Mar. 25, 2015.)[77]

---

[77] Joseph Crosson ("Mr. Crosson") is a licensed professional metallurgical engineer. He has over 44 years of experience investigating ship casualties. (Crosson Tr., 212:12, 215:1, Mar. 24, 2015.) Mr. Crosson's areas of specialization include metallurgical and weld related structural failures, mechanical failures, heat exchanger problems, stress analysis, ship casualty investigations, wire rope failures, power plant associated failures, turbine failures, materials testing, container crane failures, and examination of container crane weldments. He also has extensive experience in evaluating piping corrosion and failures in HVAC systems, domestic water systems, and other pipe systems.

A metallurgical engineer studies metals, and how they behave under certain stresses and forces. (Crosson Tr., 212:21-213:4, Mar. 24, 2015.) Mr. Crosson has worked on some of the most difficult metallurgical infrastructure issues, including the World Trade Center after the 1993 bombing, and even the recovery efforts following the collapse of the World Trade Center in 2001. (Crosson Tr., 234:2-235:23, Mar. 24, 2015.) In ship casualties, Mr. Crosson investigates the damage and determines how the damage occurred. (Crosson Tr., 214:9-18, Mar. 24, 2015.) He will study whether there was any preexisting damage to the ship's structure that might have contributed to the casualty. (Crosson Tr., 214:9-18, Mar. 24, 2015.) He has extensive experience investigating the metallurgical aspects of ship casualties. (Crosson Tr., 229:20-230:6, Mar. 24, 2015.) He has worked on several large marine casualties, including the explosion of the oil tanker Betelgeuse in Bantry Bay Island (1979); the grounding of the oil tanker Alvenus in Galveston, Texas (1984); and the collision of the Sea Witch and an oil tanker underneath the Verrazano Bridge in New York (1970s). (Crosson Tr., 219:16-220:25, Mar.

138. The anchor pierced two tanks, Number Seven Port ballast tank and Number Seven Center cargo tank. (Bowman Tr., 162:11-23, May 28, 2015; Hall Tr., 134:5-13, Mar. 4, 2015.) The Number Seven Port ballast tank was filled with water and did not cause any damage to the environment. The cargo tank was filled with crude oil, which poured into the Delaware River. (Bowman Tr., 162:11-23, May 28, 2015.)

139. Expert witnesses examined the anchor and damage to the Athos I to determine how the vessel came into contact with the submerged anchor. (Bowman Tr., 127:20-128:1, Mar. 9, 2015; Crosson Tr., 229:20-230:6, Mar. 24, 2015.)

140. The Athos I was being pushed by tugs and was moving "astern and to port" when it made contact with the anchor.[78] (Bowman Tr., 129:8-12, Mar. 9, 2015; Crosson Tr., 47:18-48:2, Mar. 25, 2015.)

141. As Captain Bethel explained, he was completing the docking maneuver when the Athos I contacted the submerged anchor. The docking maneuver required Captain Bethel to steer the Athos I from the channel, make a starboard (right) turn while in Federal Anchorage Number Nine, and allow the ship to be pushed by tugs in order to dock. (Bethel Tr., 45:23-46:8, Mar. 17, 2015.)

24, 2015.) He holds certifications as a welding and tank inspector. (Crosson Tr., 236:5-15, Mar. 24, 2015.)

In this case, Mr. Crosson investigated the Athos I after the casualty, and offered his opinion on how the allision occurred after he inspected the damage to the ship's hull. (Crosson Tr., 236:22-237:7, 229:20-230:6, Mar. 24, 2015.)

[78] *See* Appendix (Ex. "E") for an illustration of the Athos I's movements during its attempt to dock at CARCO's Paulsboro berth area. (Ex. D-2064A.)

142. Tugs alone do not turn a ship of the Athos I's size with the precision required to move it into a parallel position with the dock. Rather, Captain Bethel had to change the movements of the Athos I's engine. The log book shows that the engine movements were changed from ahead to astern, and that the Athos I was moving astern for two minutes immediately before the casualty. (Bowman Tr., 93:14-96:24, Mar. 10, 2015; Engine Bell Book, Ex. P-372.) Changing the ship's engine to astern is analogous to putting a car in reverse. (Bowman Tr., 93:14-96:24, Mar. 10, 2015.) At the same time the engine was moving astern (or in reverse), the tugs were on the starboard side of the ship pushing the Athos I sideways to the dock, meaning that the Athos was moving "astern and to port" when it struck the anchor. (Bethel Tr., 73:4-7, Mar. 17, 2015).

143. The anchor was in the "upright or close to upright position" (i.e., "flukes-up" orientation) when it punctured the hull. (Bowman Tr., 127:20-128:1, Mar. 9, 2015.) As noted, the tips of the anchor's flukes are approximately 7 feet above the riverbed when the anchor is in a "flukes-up" position.

144. The tip of a fluke first came into contact with the ship. (Bowman Tr., 116:6, Mar. 10, 2015.) As the hull of the Athos I pushed against the fluke of the anchor, "[t]he anchor would have initially resisted movement," but by the ship continuing to move across the anchor, the forces against it would have increased, bending the fluke tip, and then ultimately penetrating the hull of the Athos I, creating the long hole. (Bowman Tr., 129:8-129:16, Mar. 10, 2015.) Dr. Ratcliffe explained how there were sufficient forces against the anchor fluke to initially cause the steel fluke tip to

bend before it punctured the hull of the ship. (Ratcliffe Tr., 101:12-102:8, Mar. 12, 2015.)

145. The riverbed was composed of material, including rocks and sediment, sufficiently hard that the competing forces from the river bottom and the ship caused the anchor's fluke to puncture the hull, rather than cause the anchor to sink into the riverbed.[79]

146. The tip of the fluke made the long hole in the Athos I, and punctured the Number Seven Port ballast tank, which was holding ballast water. (Bowman Tr., 116:5-6, Mar. 10, 2015; Crosson Tr., 55:23-25, Mar. 25, 2015.)

147. The fluke tip that created the long hole in the Number Seven Port ballast tank left a scratch or score mark on a flap of steel located on the hull, which is referred to as Flap "A," where the hull first came into contact with the fluke.[80] (Bowman Tr., 127:15-130:12, Mar. 10, 2015; Crosson Tr., 43:12-44:10, Mar. 25, 2015; Appendix (Ex. "B-4"), Photograph of Score Mark, Ex. P-1093.) The score mark is at an angle of about 42° to the longitudinal centerline of the ship. (Bowman Tr., 107:19-108:18, 127:15-130:12, Mar. 10, 2015; Crosson Tr., 43:12-44:10, Mar. 25, 2015.) This angle indicates that the vessel was moving astern and to port when it contacted the anchor. (Bowman Tr., 109:16-24, Mar. 10, 2015; Crosson Tr., 77:19-78:1, Mar. 25, 2015.)

148. The scraping on what has been referred to as Flap "A" of the long hole was caused by the massive

---

[79] *See* Appendix (Ex. "B-2") for the presence of rocks and pebbles on what would be the bottom of the anchor in a "flukes-up" position when it was retrieved from the Delaware River. (Ex. D-2022.)

[80] *See* Appendix (Ex. "B-4") for a photograph of the score mark on Flap "A."

pressure of the ship passing over the anchor, which resulted in the tip of the fluke that created the scraping to bend. (Crosson Tr., 24:24-25:7, 43:16-44:25, 48:12-20, Mar. 25, 2015.) The fluke pierced the hull and became entrapped inside the hull. (Crosson Tr., 49:11-50:25, Mar. 25, 2015.)

149. With the continuing movement of the ship, the fluke's penetration into the hull made the anchor rotate, causing the palm to accelerate upward and make a second hole in the Athos I's hull—the round hole. (Bowman Tr., 128:12-129:5, Mar. 9, 2015; Crosson Tr., 53:17-25, Mar. 25, 2015.) The pressure created caused the anchor to spike upward, resulting in the palm at the other end of the anchor puncturing the hull and creating the round hole. (Crosson Tr., 50:22-52:15, Mar. 25, 2015.)

150. The upward thrust caused by the force of the rotation punched a hole in the Number Seven Center cargo tank containing the oil. (Bowman Tr., 109:23-112:22, Mar. 9, 2015; Crosson Tr., 20:6-21:9, Mar. 25, 2015.)

151. There were no score marks leading into the round hole. (Bowman Tr., 115:3-116:4, Mar. 10, 2015; Crosson Tr., 60:19-63:21, 64:22-66:17, Mar. 25, 2015.) The Athos I therefore did not initially contact the anchor by scraping over a tripping palm. (Bowman Tr., 109:23-112:22, Mar. 9, 2015; Crosson Tr., 50:18-51:17, Mar. 25, 2015.)

152. By puncturing the Number Seven Center cargo tank, oil began to pour out of the vessel with some speed. (Bowman Tr., 103:23-104:2, Mar. 10, 2015.) The oil created a scour mark in the riverbed, showing the path of the oil coming out of the vessel, which illustrated how the Athos I was moving astern and to port.

(Bowman Tr., 104:7-105:4, 106:12-107:1, Mar. 10, 2015; Diagram of Ship's Track and Score Mark, Ex. P-1353.)

v. Athos I's Draft at the Time of the Allision

153. On November 26, 2004, when the Athos I struck the submerged anchor, the vessel had a sailing draft of 36 feet, 7 inches. (Bowman Tr., 157:7-10, Mar. 9, 2015.)

154. Mr. Bowman calculated the draft of the Athos I at 36 feet, 7 inches at the time of the casualty based on the departure draft and the calculated weights on the ship using his Seamaster software program. (Bowman Tr., 156:17-25, Mar. 9, 2015.)

155. By the time the Athos I had reached the entrance to the Delaware Bay, it had been sailing for six days. During this six-day voyage, the vessel burned fuel and fresh water was consumed, making the ship lighter in the water. (Bowman Tr., 20:15-23, Mar. 10, 2015.)

156. As a result of consuming fuel and fresh water during its voyage, the Athos I had a draft of about 36 feet, 4 inches when it reached the entrance to the Delaware Bay. (Bowman Tr., 7:21-8:15, Mar. 10, 2015.)

157. Additionally, as a result of consuming fuel and fresh water during its voyage, the Athos I was no longer sailing at an even keel. (Bowman Tr., 9:7-12, Mar. 10, 2015.) Rather, the Athos I was "trimmed by the bow," meaning that the bow of the ship was deeper in the water than the stern. (Bowman Tr., 9:7-12, 9:22-25, Mar. 10, 2015.) The change in trim was due to the consumption of fuel and water from tanks that were

located on the aft of the ship. (Bowman Tr., 9:9-12, Mar. 10, 2015.)

158. The Athos I took on approximately 510 metric tons ballast water to restore it to an even keel. (Bowman Tr., 10:1-7, 12:25, Mar. 10, 2015.)

159. By taking on 510 tons of ballast to restore the vessel to an even keel, the vessel weighed more, and sank lower in the water. (Bowman Tr., 13:13-22, Mar. 10, 2015.)

160. After taking on the 510 tons of ballast, the Athos I had a mean draft of 36 feet, 7 inches. (Bowman Tr., 157:7-10, Mar. 9, 2015.)

161. No other ballast was taken on during the course of the voyage. (Bowman Tr., 61:8-16, Mar. 10, 2015.)

162. At the time of the casualty, the Athos I had a mean draft of 36 feet, 7 inches. (Bowman Tr., 157:7-10, Mar. 9, 2015.) This is the equivalent of 36.58 feet. At that point, the midship draft and the vessel were about on even keel. (Bowman Tr., 156:7-157:24, Mar. 9, 2015.) The bow draft was very close to the stern draft, so there was no significant trim on the ship at that time. (Bowman Tr., 156:7-157:24, Mar. 9, 2015.)

163. Ultimately, Mr. Bowman found, using the Seamaster program, that the Athos I's draft on arrival at Paulsboro was 36 feet, 7 inches. (Bowman Tr., 156:7-157:24, Mar. 9, 2015; 13:5-14:9, Mar. 12, 2015.) This was the draft at the time of the allision with the anchor.

164. The reliability of Mr. Bowman's Seamaster Program, and his testimony about verifying the accuracy of its findings with measurements taken by different individuals after the allision when cargo and ballast

was shifted on board the Athos I to bring it back to even keel, confirm that the Athos I's draft was 36 feet, 7 inches before it struck the anchor.[81]

vi. Athos I's Underkeel Clearance Before the Allision

165. The Athos I had at least 5 feet of underkeel clearance immediately before the allision.

166. On November 26, 2004, at 9:02 p.m., when the Athos I struck the anchor, the tide had been rising for "roughly 50 minutes to [one] hour." (Capone Tr., 222:14-19, Mar. 18, 2015; Bowman Tr., 126:23-127:8, Mar. 9, 2015.)

167. At the time of the allision, the average depth of the water at the accident site was 41.45 feet Mean Lower Low Water ("MLLW"). (Capone Tr., 215:20-217:17, Mar. 18, 2015; Traykovski Tr., 85:5-16, Mar. 30, 2015.)

---

[81] Mr. Bowman used additional methods to confirm that the Athos I had a draft of 36 feet, 7 inches at the time of the casualty. He confirmed the accuracy and reliability of his Seamaster program using the following post-incident observations: (1) Oscar Castillo, a crewmember, read the draft the morning after the casualty, on November 27, 2004; (2) Bob Umbdenstock, the salvage master, took a photograph of the ship the day after the casualty, on November 27, 2004; and (3) Ken Edgar, a naval architect, read and recorded the draft three days after the casualty, on November 29, 2004. (Bowman Tr., 21:23-53:17, Mar. 10, 2015.) Mr. Bowman made adjustments to the observed drafts as necessary taking into account, among other factors, the vessel's list, loss and transfer of cargo, flooding of tanks, and other changes to the vessel after the casualty. (Bowman Tr., 21:23-53:17, Mar. 10, 2015.) Mr. Bowman's post-incident calculations were within normal tolerances of his calculation that the draft of the Athos I when it arrived near CARCO's terminal was 36 feet, 7 inches. (Bowman Tr., 21:23-53:17, Mar. 10, 2015.)

168. At the time of the allision, the tide was between 0.2 and 0.7 feet above MLLW. (Capone Tr., 215:20-216:13, Mar. 18, 2015.) As such, the water depth at the accident site was at least 41.65 feet.[82]

169. Since the Athos I was in approximately 41.65 feet of fresh water and had a draft of 36 feet, 7 inches (which is equal to 36.58 feet) at the time of the casualty (Capone Tr., 215:20-217:17, Mar. 18, 2015; Bowman Tr., 157:10-15, Mar. 9, 2015), the vessel would have had approximately 5.07 feet of clear underkeel clearance had no obstruction been present.[83] Though the Athos I had approximately 5.07 feet of underkeel clearance, because the anchor in the "flukes-up" position protruded about 7 feet above the riverbed, it struck the hull and shortly thereafter the penetration occurred.

vii. Post-Incident Inspection of the Athos I

170. On November 27, 2004, at 7:36 a.m., David Hall ("Mr. Hall") arrived on the Athos I to inspect the ship for the owners.[84] (Hall Tr., 111:1-5, 119:3:-7 [sic], Mar. 4, 2015.)

---

[82] 41.45 feet (MLLW) + 0.2 feet (increase from tide) = 41.65 feet (water depth).

[83] 41.65 feet (water depth) – 36.58 feet (arrival draft) = 5.07 feet (underkeel clearance).

[84] Mr. Hall is a maritime surveyor. (Hall Tr., 97:11-98:11, Mar. 4, 2015.) He has thirty-three years of experience in the maritime industry and was hired by the owners of the Athos I to conduct an inspection of the vessel after the accident. (Hall Tr., 98:15-99:1, 102:8-14, Mar. 4, 2015.) Mr. Hall is a qualified Ship Inspection Reporting Inspector. (Hall Tr., 106:4-6, Mar. 4, 2015.) He has conducted over 200 vessel inspections. (Hall Tr., 107:17-21, Mar. 4, 2015.) In particular, he has performed inspections on

171. Mr. Hall noticed that the Athos I was listing heavily to the port side by the bow of the vessel. (Hall Tr., 111:20-23, Mar. 4, 2015.) To restore the ship back to an even keel and calculate the amount of cargo that was lost, he made a decision to put ballast into two of the ballast tanks—Number Four Starboard ballast tank and Number Seven Starboard ballast tank. (Hall Tr., 161:2-16, Mar. 4, 2015.) On November 28, 2004, this ballasting was accomplished and brought the Athos I back to an even keel.

172. On November 27, 2004, Mr. Hall did not notice anything out of the ordinary in the Athos I's pump room.[85] (Hall Tr., 145:8-14, Mar. 4, 2015.) He did observe that the pump valve was lashed shut. (Hall Tr., 145:15-18, Mar. 4, 2015.) Lashing is a visual aid to indicate that the valve is closed and prevents it from opening due to vibrations on the ship. (Hall Tr., 145:23-146:6, Mar. 4, 2015.) The fact that the pump valve was lashed shut demonstrated that illicit ballast had not been added to or removed from the Athos I.

173. Mr. Hall also inspected the ballast system. He watched the crew take soundings of the ballast tanks and determined that they were doing this procedure properly. (Hall Tr., 129:17-130:2, 137:12-18, Mar. 4, 2015.) He could find no major problems with the ballast tanks. (Hall Tr., 175:2-3, Mar. 4, 2015.) He went into the Number Six Port ballast tank, which is adjacent to the Number Seven Port ballast tank, to check that the soundings were working properly, and found

---

oil tankers that are similar to the Athos I. (Hall Tr., 109:25-110:1, Mar. 4, 2015.)

[85] The pump room is an area on the ship containing pumps and additional equipment used for removing, adding, or distributing liquid cargo in the ship's tanks.

that the tank was completely dry. (Hall Tr., 147:4-6, 150:7-152:20, Mar. 4, 2015.) There were no indications of ballast or recent ballast being present in the tank. He determined that there could not have been any illicit removal of ballast by the crew because the ship was listing so heavily that it would have been impossible to remove the water from the vessel. (Hall Tr., 178:9-16, Mar. 4, 2015.)

174. Through his inspection, Mr. Hall estimated that 264,335 gallons of crude oil had spilled into the Delaware River as a result of the accident. (Hall Tr., 170:3-12, Mar. 4, 2015; Letter from David Hall to Captain Sarubbi, Ex. P-1203.) He later refined his calculation by reducing it 14 gallons to 264,321 gallons. (Hall Tr., 171:4-21, Mar. 4, 2015; Ex. P-1358.)

175. In December 2004, the remaining cargo on the Athos I was unloaded at CARCO's berth.

176. The Athos I was then moved to dry dock in Mobile, Alabama, where the full extent of the damage was inspected.

viii. Allegations of Poor Navigation and Seamanship

177. CARCO alleges that the pilots, captain, and crew of the Athos I engaged in poor navigation and seamanship that caused or contributed to the accident, and that the following four actions demonstrate the poor navigation and seamanship. (Doc. No. 867 at 102-138.) First, the Athos I crew attempted to dock the vessel during an inappropriate stage of the tide. (*Id.* at 102.) Second, Frescati failed to conduct a proper master-pilot exchange, failed to prepare a proper voyage plan, and failed to calculate the Athos I's underkeel clearance. (*Id.* at 130-155.) Third, Frescati

violated pertinent federal regulations. (*Id.* at 112.) Fourth, the Athos I was unseaworthy. (*Id.* at 190-98.)

178. CARCO contends that Captain Bethel attempted to dock the Athos I at an inappropriate time. (*Id.* at 105.) In particular, CARCO alleges that he started to dock during low tide, when the tidal current was slightly ebbing, or was, at most, a slack current. According to CARCO, docking at low tide with an ebbing current was not within the suggested docking window set by the Docking Pilots Association for CARCO's Paulsboro berth. The docking window set by the Association for CARCO's Paulsboro berth allowed a ship of the Athos I's size, drawing up to 37 feet, 6 inches, to dock from the beginning of the flood current until one hour after high tide at the Billingsport Range. (Bethel Tr., 90:11-91:16, Mar. 17, 2015.)

179. The Court has already found that the Athos I attempted to dock at an appropriate time. Captain Teal observed that the tide was rising when the Athos I reached the docking site in the Delaware River channel. (Teal Tr., 78:10-79:20, 87:1-7, Mar. 16, 2015.) Similarly, Captain Bethel observed that the tide was rising when he boarded the Athos I. (Bethel Tr., 35:15-22, 36:12-17, Mar. 17, 2015.) The tide had been rising for approximately fifty minutes to one hour before the Athos I attempted to dock, and therefore was within the suggested docking window. (Capone Tr., 222:15-19, Mar. 18, 2015.)

180. The Third Circuit found "no indication in the record that the Athos I was attempting to dock at an inappropriate time." *In re Frescati*, 718 F.3d at 204 n.22.

181. CARCO also contends that Frescati failed to conduct a proper master-pilot exchange, failed to prepare a proper voyage plan, and failed to calculate the Athos I's underkeel clearance. (Doc. No. 867 at 130-55.)

182. As already noted, Captain Teal and Captain Markoutsis conducted an adequate master-pilot exchange.

183. Captain Bethel also engaged in a proper master-pilot exchange. When he first boarded the Athos I, he went up to the wheelhouse and had a lengthy discussion with Captain Teal. (Bethel Tr., 38:10-44:5, Mar. 17, 2015.) They discussed how the ship was handling, the navigation of the ship, and its draft. (Bethel Tr., 38:10-44:5, Mar. 17, 2015.) He also reviewed the pilot card. (Bethel Tr., 38:10-44:5, Mar. 17, 2015.)

184. Captain Betz also watched the testimony of Captain Bethel. He confirmed that Captain Bethel had engaged in an adequate and appropriate master-pilot exchange. (Betz Tr., 47:3-23, Mar. 18, 2015.)

185. CARCO also alleges that Frescati failed to abide by federal regulations governing voyage planning and underkeel clearance.[86] Captain Teal explained,

---

[86] CARCO contends that Frescati violated 33 C.F.R. § 157.455(a)-(b), which directs a vessel crew to anticipate the minimum underkeel clearance a ship will need to safely transit a waterway. This Section provides:

> (a) The owner or operator of a tankship, that is not fitted with a double bottom that covers the entire cargo tank length, shall provide the tankship master with written under-keel clearance guidance that includes—
>
> (1) Factors to consider when calculating the ship's deepest navigational draft;
>
> (2) Factors to consider when calculating the anticipated controlling depth;
>
> (3) Consideration of weather or environmental conditions; and
>
> (4) Conditions which mandate when the tankship owner or operator shall be contacted prior to port entry or

> getting underway; if no such conditions exist, the guidance must contain a statement to that effect.
>
> (b) Prior to entering the port or place of destination and prior to getting underway, the master of a tankship that is not fitted with the double bottom that covers the entire cargo tank length shall plan the ship's passage using guidance issued under paragraph (a) of this section and estimate the anticipated under-keel clearance. The tankship master and the pilot shall discuss the ship's planned transit including the anticipated under-keel clearance. An entry must be made in the tankship's official log or in other onboard documentation reflecting discussion of the ship's anticipated passage.

33 C.F.R. § 157.455(a)-(b). In addition to this regulation on underkeel clearance, CARCO asserts that Frescati violated IMO Resolution A.893(21) and Regulation 34 of Chapter V of the Safety of Life at Sea ("SOLAS") Convention, for allegedly failing to prepare a voyage plan. The IMO resolution provides that, "on the basis of the fullest possible appraisal, a detailed voyage or passage plan should be prepared which should cover the entire voyage or passage from berth to berth, including those areas where the services of a pilot will be used." IMO Resolution A.893(21). Similarly, the SOLAS Convention provides:

> 1 Prior to proceeding to sea, the master shall ensure that the intended voyage has been planned using the appropriate nautical charts and nautical publications for the area concerned, taking into account the guidelines and recommendations developed by the Organization.
>
> 2 The voyage plan shall identify a route which:
>
> . . .
>
> .4 takes into account the marine environmental protection measures that apply, and avoids, as far as possible, actions and activities which could cause damage to the environment.
>
> 3 The owner, the charterer, or the company, as defined in regulation IX/1, operating the ship or any other person shall not prevent or restrict the master of the ship from taking or executing any decision which, in

however, that he discussed the anticipated underkeel clearance with Captain Markoutsis during the master-pilot exchange. (Teal Tr., 53:19-22, 164:17-19, Mar. 16, 2015.) He stated that they knew there would be sufficient underkeel clearance to transit up river. (Teal Tr., 164:17-19, Mar. 16, 2015.) In addition, both Captain Teal and Captain Markoutsis adequately planned for the voyage by discussing the draft of the vessel, the stages of the tide, the weather conditions, and the ship's handling, among other things. (Teal Tr., 51:12-52:18, 160:11-15, Mar. 16, 2015.) Captain Markoutsis planned for the voyage from Puerto Miranda, Venezuela, to Paulsboro, New Jersey. This included loading the Athos I only to a draft of 36 feet, 6 inches to safely exit Puerto Miranda and to safely enter Paulsboro. (Teal Tr., 135:23-136:2, Mar. 16, 2015; Markoutsis Tr., 198:18-199:3, 200:7-201:13, Oct. 13, 2010.) It included planning for the passage through the Caribbean Sea and the Atlantic Ocean, until the Athos I reached the entrance to the Delaware Bay. Once the vessel arrived on the Delaware River, Captain Markoutsis continued to plan for the remainder of the voyage with Captain Teal. (Teal Tr., 51:12-52:18, 160:11-15, Mar. 16, 2015.) The Athos I crew adequately planned the voyage, including the underkeel clearance, from Puerto Miranda, Venezuela to the entrance to Delaware Bay, and from there to Federal Anchorage Number Nine. (Betz Tr., 20:7-24:3, Mar. 18, 2015.)

186. Although CARCO alleges that the Athos I crew destroyed the original written voyage plan, based on

---

> the master's professional judgment, is necessary for safe navigation and protection of the marine environment.

SOLAS ch. V, reg. 34.

all the Court's findings in this case, no credible inference can be drawn that what was contained in this voyage plan caused or contributed to the allision with the submerged, unknown anchor.

187. CARCO alleges that the Athos I crew failed to abide by other regulations, resulting in poor navigation and seamanship. (Doc. No. 867 at 112.) For instance, CARCO alleges that Frescati did not have a wheelhouse poster on the bridge of the ship, in violation of federal regulations and resolutions.[87] However,

---

[87] Specifically, CARCO alleges that Frescati violated 33 C.F.R. § 157.450 because the vessel did not have a wheelhouse poster. This regulation provides that "[a] tankship owner, master, or operator shall comply with International Marine Organization (IMO) Resolution A.601(15), Annex sections 1.1, 2.3, 3.1, and 3.2, with appendices." This Resolution provides in relevant part:

> 1 Introduction
>
> 1.1 . . . Administrations *are recommended* to require that the [maneuvering] information given herewith is on board and available to navigators.
>
> 1.2 The [maneuvering] information should be presented as follows:
>
> .1 Pilot card
>
> .2 Wheelhouse poster
>
> .3 [Maneuvering] booklet
>
> 2 Application
>
> 2.1 The Administration *should recommend* that [maneuvering] information, in the form of the models contained in the appendices, should be provided as follows:
>
> .1 for all new ships to which the requirements of the 1974 SOLAS Convention, as amended, apply, the pilot card should be provided;
>
> .2 for all new ships of 100 metres in length and over, and all new chemical tankers and gas carriers regardless of

the use of wheelhouse posters are [sic] recommended, not required. Captain Betz testified that it was not customary for a river pilot to review the wheelhouse poster or the voyage plan during the master-pilot exchange. (Betz Tr., 24:4-19, Mar. 18, 2015.) The absence of a wheelhouse poster did not cause or contribute to the casualty.

188. Finally, CARCO contends that the Athos I was unseaworthy. (Doc. No. 867 at 190-205.) In particular, CARCO alleges that Frescati failed to maintain the ballast system, failed to man the vessel with a competent crew, and failed to maintain a proper safety management system. (*Id.*)

189. CARCO alleges that problems with the Athos I's ballast system caused the vessel to take on extra ballast, resulting in an increase in the ship's draft. (*Id.* at 193.) The Court has already found, however, that the Athos I did not take on any additional ballast beyond the 510 metric tons that the crew used to bring the vessel back to an even keel. Any problem with the

---

> size, the pilot card, wheelhouse poster and [maneuvering] booklet should be provided.
>
> 2.2 The Administration *should encourage* the provision of [maneuvering] information on existing ships, and ships that may pose a hazard due to unusual dimensions or characteristics.

IMO Resolution A.601(15) (emphasis added).

IMO is a United Nations agency headquartered in London, England. It sponsors most international conventions that deal with pollution of the sea. It has no enforcement authority, but it serves the important function of "coordinating the uniformity of ship regulations and inducing cooperation among nations with regard to the economic and technical aspects of maritime commerce." 2 Thomas J. Schoenbaum, *Admiralty & Maritime Law* § 18-1, at 268 (5th ed. 2012).

ballast system did not cause or contribute to the oil spill, and did not render the vessel unseaworthy.

190. CARCO alleges that the crew was not competent. Tsakos trained the Athos I crew. (Athos I Inspections & Audits, Ex. P-1310.) It ensured that the ship's navigational officers were properly licensed and had appropriate certificates of competency for their rank. (Ex. P-286; Ex. P-289; Ex. P-295; Ex. P-298; Ex. P-301.) Witnesses such as Mr. Hall observed the crew perform tasks and found them to be competent. (Hall Tr., 136:9-137:18, Mar. 4, 2015.) Contrary to CARCO's contention, the Court finds that the Athos I pilots, captain, and crew were competent and were properly trained.

191. Finally, CARCO alleges that the Athos I pilots, captain, and crew failed to maintain a proper safety management system in violation of the Safety of Life at Sea ("SOLAS") standards, the International Safety Management ("ISM") code, and other federal regulations, which would make the vessel unseaworthy. (Doc. No. 867 at 199.) Specifically, CARCO alleges a violation of IMO Resolution A.741(18) and 33 C.F.R. §§ 96.220-96.250, which directed vessels to implement a written safety management system.[88]

---

[88] Federal regulations for safety management systems are set forth in §§ 96.220 to 96.250 of the Federal Code of Regulations. 33 C.F.R. §§ 96.220-96.250. For example, § 96.220 provides:

> (a) The safety management system must document the responsible person's—
>
> (1) Safety and pollution prevention policy;
>
> (2) Functional safety and operational requirements;
>
> (3) Recordkeeping responsibilities; and
>
> (4) Reporting responsibilities.

192. Tsakos had an established and comprehensive safety management system. (Ex. P-332.) This system included a maintenance plan that covered all mechanical components of the Athos I. (*Id.*) Vessels under its management and ownership, including the Athos I, were regularly inspected. Therefore, there was sufficient compliance with these regulations.

> (b) A safety management system must also be consistent with the functional standards and performance elements of IMO Resolution A.741(18).

Id.

IMO Resolution A.741(18) has recommendations for safe operation of ships and for pollution prevention, and strongly urges governments to implement the ISM Code. IMO Res. A.741(18). For example, IMO Resolution A.741(18) Annex 1.4 provides:

> 1.4 Functional requirements for a safety-management system (SMS)

Every Company should develop, implement and maintain a safety-management system (SMS) which includes the following functional requirements:

> .1 a safety and environmental-protection policy;
>
> .2 instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation;
>
> .3 defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel;
>
> .4 procedures for reporting accidents and non-conformities with the provisions of this Code;
>
> .5 procedures to prepare for and respond to emergency situations; and
>
> .6 procedures for internal audits and management reviews.

IMO Res. A.741(18) Annex 1.4.

ix. Allegations of Spoliation

193. CARCO contends that Frescati spoliated evidence. In particular, CARCO alleges that Frescati lost, destroyed, or altered the following documents: the original voyage plan of the Athos I, the rough deck log, the cargo control room log, the pump room patrol logs, the wheelhouse poster, and the original Anko Loadicator data.[89] (Doc. No. 754.)

194. As will be explained in further detail, *infra*, Section IV(E), the Court finds that Frescati did not intentionally or in bad faith lose, destroy, fabricate, or withhold any relevant evidence. In addition, the evidence that CARCO alleged was spoliated would not have caused or contributed to the Athos I's allision with a submerged, unknown anchor.

F. Oil Spill Response

195. The oil spill response went into effect immediately after the casualty on November 26, 2004 and extended into January 2005, when the oil finally was removed from the Delaware River environment.

196. Pursuant to OPA, Frescati had in place a preexisting vessel response plan, which covered what to do in the event of a "worst case discharge" oil spill. 33 U.S.C. § 1321(j)(5). Frescati's vessel response plan outlined the responsibility of the captain in the event of an emergency. It also identified the primary Oil Spill Response Organization ("OSRO") that contracted

[89] The Anko Marine Load Planner, also known as the Anko Loadicator, was a computer program used aboard the Athos I to aid in cargo loading operations. The Anko Loadicator calculated the weights loaded onto a vessel, among other things. The Anko reports included the calculated data.

with Frescati to provide oil spill cleanup services. (Benson Tr., 133:1-134:8, Mar. 23, 2015.)

197. The vessel response plan identified Courtney Ben Benson ("Mr. Benson") as the qualified individual who had the authority to implement oil spill response operations.[90] (Benson Tr., 137:21-138:2, 139:9-140:21, 141:19-142:24, Mar. 23, 2015.) Mr. Benson worked with Captain John Sarubbi, the federal on-scene coordinator ("FOSC"), who managed the oil spill cleanup.[91]

---

[90] Mr. Benson has extensive experience in responding to oil spills and the required cleanup effort by working at an OSRO. This is an organization with an official designation and certification given under OPA. (Benson Tr., 128:20-22, Mar. 23, 2015.) At the time of the Athos I oil spill, Mr. Benson worked for the O'Brien Group, an OSRO which was then known as O'Brien's Oil Pollution Service of Gretna, Louisiana. (Benson Tr., 125:18-25, Mar. 23, 2015.) Of the ten largest oil spills in the country posted on the Coast Guard website, Mr. Benson has worked on at least six. (Benson Tr., 132:13-16, Mar. 23, 2015.) Among many others, Mr. Benson worked on the following oil spill responses: the BP Macondo Blowout (2010); Enbridge Pipeline Rupture (2010); TVA Coal Ash Sediment Pond Rupture (2008); COSCO Busan Oil Spill (2007); and M/V Cathy M. Settoon Oil Spill (2007). (Benson Tr., 131:7-18, Mar. 23, 2015.) In these responses, Mr. Benson worked in the capacity of either the assigned O'Brien Group Executive Vice President, the qualified individual, or the incident commander. (Benson Tr., 133:5-10, Mar. 23, 2015.)

During the Rule 63 proceeding, Mr. Benson gave a detailed explanation of the cleanup response process in this case, the unique challenges of the Delaware River, and the judgment calls that he made along the way. He justified the cost of the response, and the consequences that would have ensued had he made different decisions with respect to compensating responders and obtaining equipment and supplies.

[91] At the time of the Athos I oil spill, Captain John Sarubbi ("Captain Sarubbi") was the Coast Guard commander of the Port of Philadelphia. He assumed the role of the federal on-scene coordinator during the Athos I oil spill response.

(LaFerriere Tr., 6:21-24, Mar. 23, 2015.) The FOSC used the incident command system to direct and manage the oil spill response. The incident command system is an "organized structure and an organized way with processes and principles on how to respond to an incident." (LaFerriere Tr., 33:17-24, Mar. 23, 2015.)

198. Captain Sarubbi requested assistance from the Coast Guard's specialized strike team, which provides advanced expertise in oil spill responses. (LaFerriere Tr., 6:21-24, Mar. 23, 2015.) Captain Roger LaFerriere ("Captain LaFerriere") was the commanding officer of the Coast Guard Atlantic strike team.[92] (LaFerriere Tr., 5:21-6:1, Mar. 23, 2015.)

---

[92] Strike teams are highly trained in oil spill responses. Captain LaFerriere completed two tours of duty with the Atlantic strike team: the first as an operations officer from 1991 to 1995, and the second as a commanding officer from 2003 to 2006. (LaFerriere Tr., 6:15-20, Mar. 23, 2015.) He holds specialized certifications, such as a "type 1 certification," which is for an incident of national significance, such as the Deepwater Horizon oil spill. (LaFerriere Tr., 35:11-17, 35:25-36:3, Mar. 23, 2015.) He has extensive experience working on oil spill cleanup responses, including spills such as the Gulf Deepwater Horizon, Colonial Pipeline, San Jacinto River, Morris Berman, Tank Barge Vista Bella, Virgin Islands Water and Power Authority, and Exxon Valdez, all of which were major oil spills. (LaFerriere Tr., 9:2-8, Mar. 23, 2015.) In discussing the Athos I spill response, he explained the planning involved, including the creation of a daily incident action plan to assist in the response. He also described the unique challenges and considerations associated with the Delaware River. Finally, he consistently defended judgment and spending decisions, explaining how additional cost was avoided through responsible cleanup efforts. Captain LaFerriere stated, "this spill [response], in particular, is the one I'm the most proud of." (LaFerriere Tr., 81:7-8, Mar. 23, 2015.) Captain LaFerriere's testimony confirmed his extensive experience and thoughtful decision-making in oil spill responses.

199. The Athos I oil spill was complex. The spill location within a navigable waterway made the response difficult to manage, "primarily due to winds, currents, and tides." (LaFerriere Tr., 12:20-25, Mar. 23, 2015.) Overall, the oil spill affected "about 70 miles of waterway" on the Delaware River. (LaFerriere Tr., 11:7-11, Mar. 23, 2015.) Other vessels were stalled from passing through polluted portions of the Delaware River, temporarily crippling the local shipping industry. Additionally, weather conditions during the cleanup made the response difficult. Given the freezing temperatures from November through January, responders needed to be trained to deal with the inclement weather conditions and were required to wear protective equipment to prevent hypothermia. (Benson Tr., 172:10-16, 173:2-8, Mar. 23, 2015.)

200. The type of oil that was spilled also made the response more complex. Heavy crude oil is difficult to deal with. It sticks to vessels and shorelines, and must be "physically manually removed." (Benson Tr., 158:12-21, 158:25-159:15, Mar. 23, 2015.) Over 100 vessels were contaminated and required not only cleaning but also winterization. (Benson Tr., 176:19-177:13, 180:23-181:4, Mar. 23, 2015.) In addition, tar balls formed in the waterway, requiring manual removal.[93] (Benson Tr., 160:12-18, Mar. 23, 2015.) The

---

[93] Mr. Benson described tar balls as follows:

> Tar balls are more coagulated clumps, which we experienced as well. The further the oil got away from the source, drifted downstream, the more sediment it picked up, it would coagulate into a ball, okay, and then break apart into smaller little tar balls. And then they would be carried by the current and in some cases wind driven up against the shoreline.

(Benson Tr., 160:12-18, Mar. 23, 2015.)

remaining oil held on the Athos I also required removal, and the ship needed to be stabilized before it could be moved for salvage. (LaFerriere Tr., 19:14-20:13, Mar. 23, 2015.)

201. Over 1,800 people were dispatched in the oil spill response. (LaFerriere Tr., 11:12-14, Mar. 23, 2015.) Personnel came from private contractors, as well as federal, state, and local governmental agencies. (LaFerriere Tr., 12:3-19, Mar. 23, 2015.)

202. Mr. Benson explained the general objectives of the Athos I oil spill response. The top priority in any oil spill response is safety. (Benson Tr., 174:25-175:3, Mar. 23, 2015.) The second priority is "to facilitate vessel movement in affected port areas." (Benson Tr., 175:4-10, Mar. 23, 2015.) This is imperative for minimizing the economic impact of the spill and for resuming the local shipping industry. (Benson Tr., 175:11-16, Mar. 23, 2015.) Third, spill responses prioritize the decontamination of other vessels to prevent the spread of pollution. (Benson Tr., 175:17-176:16, Mar. 23, 2015.) Both Mr. Benson and Captain LaFerriere explained that the national contingency plan does not prioritize cost minimization when responding to an emergency oil spill. (Benson Tr., 174:25-176:12, Mar. 23, 2015; LaFerriere Tr., 27:2-11, Mar. 23, 2015.)

203. To achieve these objectives while simultaneously cleaning up the spilled oil, the responders used the incident command system and created an incident action plan, which included the daily objectives and work assignments. Work assignments were itemized on standard forms called "ICS 204 assignment lists." Each work assignment identified personnel and equipment needed to complete the task. (Benson Tr., 187:10-188:22, Mar. 23, 2015.) Supervisors, monitors, and even helicopters were used to survey the tasks to

ensure that each assignment was being completed as quickly as possible. (Benson Tr., 191:7-193:14, Mar. 23, 2015.) At the end of each day, every supervisor was required to submit documentation on the work completed, "itemizing labor, equipment, materials, and supplies on a day-to-day basis." (Benson Tr., 187:10-21, Mar. 23, 2015.) These daily support sheets were submitted to the finance team of the oil spill response, which conducted audits to verify expenses. (Benson Tr., 194:22-195:13, Mar. 23, 2015.) The finance department also used an automated verification system to inspect contractor invoices that came in daily. (Benson Tr., 210:3-211:12, Mar. 23, 2015.)

204. Mr. Benson made sound business decisions in responding to the Athos I oil spill. He explained that from November 27, 2004 to December 16, 2004 the response was in the emergency phase, where responders were focused on cleanup of the oil and preventing further ecological damage. (Benson Tr., 217:8-14, Mar. 23, 2015.) By December 16, 2004, the response transitioned from the emergency phase into the project phase, when Mr. Benson was able to look ahead beyond the next day, and was able to re-negotiate contracts and cut costs for the remaining cleanup efforts. (Benson Tr., 214:24-215:6, 215:9-14, 216:4-11, 216:16-217:7, Mar. 23, 2015.) To minimize costs, Mr. Benson reduced rates that contractors were able to charge. (Benson Tr., 225:8-23, Mar. 23, 2015.) This included auditing contractors' bills and negotiating expenses on an ongoing basis. (Benson Tr., 227:7-228:18, Mar. 23, 2015.) He also centralized the supply of equipment and materials to one main distributor to reduce this expense. (Benson Tr., 226:7-227:3, Mar. 23, 2015.) Furthermore, Mr. Benson reduced the overall per diem rate, which was a fixed cost for personnel lodging and meals. (Benson Tr., 228:19-230:9, Mar. 23, 2015.)

205. Captain LaFerriere testified that the Athos I oil spill response had the "best use of the incident command system" that he had seen in all of the spill responses in which he had been involved. (LaFerriere Tr., 81:8-10, Mar. 23, 2015.)

G. Costs Incurred from the Casualty

206. Frescati initially incurred over $143 million in cleanup costs and damages resulting from the casualty. The Government reimbursed Frescati nearly $88 million for expenses associated with the oil spill. Frescati's remaining damage claim can be organized into six categories:

Damages Category	Frescati's Claimed Damages
1. OPA Removal Costs (Ex. P-1419)	$45,317,511
2. Non-OPA Response Costs (Ex. P-1420)	$1,541,597.79
3. Salem Plant Settlement (Ex. P-1422)	$1,500,000
4. Unrepaired Hull Damage (Ex. P-1417a)	$438,542.25
5. Vessel/Misc. Port Expenses (Ex. P-1415, P-1416)	$50,642.01
6. Stipulated Damages (including hull damage, loss of hire, and natural resource damage assessment) (Stipulation Doc. Nos. 526/233, 518/234)	$6,649,082.90
Total	$55,497,375.95

207. In the first category, Frescati seeks damages totaling $45,317,511 for unreimbursed OPA oil spill removal costs. (Doc. No. 862 at 29.) As the responsible party under OPA, Frescati initially bore the cost of the oil spill response. 33 U.S.C. § 2702(a). Because OPA sets liability limits for cooperative responsible parties, an incentive existed for Frescati to respond quickly to the oil spill to limit its financial exposure. (LaFerriere Tr., 118:10-119:4, Mar. 23, 2015; 33 U.S.C. § 2704.) Frescati was able to limit its liability under the provisions of OPA to $45,474,000 as the cost incurred to clean up the oil. 33 U.S.C. § 2704 (2013). Moreover, Frescati reduced its OPA removal costs by $156,489 by selling equipment it purchased for the cleanup. (Ex. P-1419.)

208. These costs were reasonable. As noted in the testimony of Mr. Benson, Frescati monitored all costs associated with the oil spill response and reduced these costs when possible. For instance, Frescati negotiated reduced rates with personnel after the emergency phase of the spill response, even while the efforts continued. (Benson Tr., 244:12-245:9, Mar. 23, 2015.) It also reduced per-diem rates after the emergency phase of the spill response. (Benson Tr., 244:12-245:9, Mar. 23, 2015.) Additionally, it established a central supply system. (Benson Tr., 226:4-227:6, Mar. 23, 2015.) Frescati was able to reduce price mark-ups by negotiating directly with vendors. To monitor these costs, it organized daily invoices for the entire response effort.

209. In support of the reasonableness of the payments, Frescati presented testimony and opinions of several witnesses and also relied upon the testimony of Government witness Donna Hellberg ("Ms. Hellberg"), the Lead Claims Manager in the Claims Adjudication

Division of the National Pollution Funds Center ("NPFC").[94] The Frescati team was confronted with an emergency oil spill cleanup effort and Mr. Benson emphasized that cost containment was not the first priority during the initial phase of the cleanup. Time was of the essence and contractors were required to secure all necessary equipment and manpower without an initial concern for cutting costs. Ms. Hellberg, Mr. Benson, and Captain LaFerriere amply justified the reasonableness of the payment system and the size of the payments made to complete the cleanup.

210. During the pre-federalization phase of an oil spill response, the responsibility for response and payment lies with the responsible party. (LaFerriere Tr., 86:12-14, Mar. 23, 2015.) If Frescati had not properly responded to the oil spill as the responsible party under OPA, and the Coast Guard had taken over initially and assumed responsibility for the cleanup, the total cost of the oil spill response would have dramatically increased, and probably would have been "2 to 3 times more expensive." (LaFerriere Tr., 83:1-12, 86:12-14, 87:19-88:3, Mar. 23, 2015.)

211. Throughout the cleanup effort, Frescati faced the threat of early federalization if it did not carry

---

[94] Ms. Hellberg is quite knowledgeable about the oil spill cleanup process. At the Coast Guard's National Pollution Funds Center, she is the Lead Claims Manager. Ms. Hellberg "adjudicate[s] the majority of all large complex removal cost claims, as well as review[s] and approve[s] adjudication for removal cost claims of other managers." (Hellberg Tr., 64:4-10, Mar. 24, 2015.) Ms. Hellberg explained that for the Athos I oil spill, she went to the Unified Command Incident Command Post. She explained, "I went there to see the operations. I also went to get an appreciation of the magnitude of the spill. . . . And I also spoke with individuals that were within the unified command." (Hellberg Tr., 65:6-13, Mar. 24, 2015.)

out its functions efficiently as required by OPA. Mr. Benson explained, "[i]f we fail[ed] in any component . . . if we fail[ed] to support our contractors and the contractors fail[ed] to perform in the field with fear of not being paid, for example, the Coast Guard ha[d] full authority to step in and federalize that component of the spill." (Benson Tr., 144:10-14, Mar. 23, 2015.) Mr. Benson further stated, "if the Coast Guard was to intercede and federalize the spill, costs are going to rise dramatically . . . it could be punitive to the course of treble damages overall." (Benson Tr., 144:24-145:3, Mar. 23, 2015.)

212. Ms. Hellberg reviewed the claim documents presented by Frescati, which included invoices, proof of payment, dailies, receipts, and contemporaneous records that corroborated the expenses incurred. (Hellberg Tr., 69:16-23, Mar. 24, 2015.)

213. In the course of adjudicating Frescati's claim for reimbursement, Ms. Hellberg reviewed in excess of five feet of documents. (Hellberg Tr., 134:7-9, Mar. 24, 2015.) In total, Ms. Hellberg stated that Frescati provided more than 53,000 pages of documentation to support its claim submission. (Hellberg Tr., 87:6-12, Mar. 24, 2015.)

214. Frescati's second category of damages is non-OPA removal costs. (Doc. No. 862 at 11.) These costs are for expenses that the NPFC deems not "OPA compensable," and total $1,541,597.79. (Doc. No. 862 at 74.) These expenditures include costs incurred to manage third-party claims, to decontaminate recreational boats, and to remove the anchor and pump casing. (*Id.* at 75-77.)

215. Frescati had expenses in managing the third-party claims. In a large and complex oil spill, there are

many third-party claims that are made and must be handled on an on-going basis, concurrently with the oil spill cleanup efforts. Hudson Marine Management Services ("HMMS") charged $873,783.08 for managing the third-party claims. (Ex. P-1420.) Third-party claims were made for contaminated or damaged marinas, wharfs, or boats. HMMS organized how each would be resolved. Third party claimants were given the option of accepting money for the claim or having their property cleaned. (Ex. P-1280.) When a claimant elected to have its property cleaned, HMMS directed the claimant to Global Response Services, Inc. ("Global") to do this work.

216. Frescati incurred costs associated with cleaning recreational boats that were contaminated by the oil spill. Over 100 vessels were contaminated and required not only cleaning but also winterization. (Benson Tr., 176:19-177:13, 180:23-181:4, Mar. 23, 2015.) Frescati paid Global $386,925.43 to set up and operate recreational boat cleaning and winterizing stations. (Ex. P-1420.) Of these costs, $2,475 was deemed compensable by the NPFC. (Ex. P-1419.) Along with Global, E.A. Renfroe ("Renfroe") was paid $233,091.48 to assist in decontaminating and repairing boats damaged by the oil spill. For example, repairs consisted of fixing and replacing boat equipment such as power washers, air compressors, and pumps. This work was essential to the oil spill response because it cleaned contaminated vessels that were in the Delaware River. If Frescati had failed to clean these boats, oil would have continued to pollute the Delaware River well beyond the end of the cleanup effort. (Benson Tr., 175:4-176:16, Mar. 23, 2015.)

217. Frescati paid for costs associated with the removal of the anchor and pump casing in order to

determine how the Athos I was holed. It contracted with Weeks Marine, Inc. ("Weeks Marine") and Environmental Protection Engineering, S.A. ("EPE") for this service. Weeks Marine charged $26,716.20 for retrieving these two items, which included the cost of marine equipment used for removal operations (i.e., a barge, cranes, and other salvage equipment). (Ex. P-1420.) Additionally, EPE was paid $23,556.60 for oversight and consulting in response to the casualty. *Id.* Frescati paid for these services in order to learn what contacted the Athos I to cause the casualty, and to remove obstructions from the river bottom, which were a hazard to navigation.

218. Frescati's third category of damages is for an expense of $1,500,000 associated with the Salem Plant Settlement. (Ex. P-1422.) Frescati settled a third-party claim submitted by the Salem Nuclear Power Plant. When oil spilled into the Delaware River, the Salem Nuclear Power Plant immediately had to shut down its nuclear reactors, because oil started to appear in the power plant's water supply intakes. Turning the reactors off avoided damaging the reactors' intake and cooling systems. The Salem Nuclear Power Plant first submitted a claim to the NPFC for lost profits and other costs incurred due to the emergency shutdown. The NPFC adjudicated this claim for more than $30,000,000, not including interest. Subsequently, in November of 2008, the Salem Nuclear Power Plant asserted a claim against Frescati for more than $4,600,000, representing interest that the NPFC had refused to pay because the NPFC is not statutorily authorized to pay interest on its claims awards. Frescati settled this suit for $1,500,000.

219. The fourth category of damages is for unrepaired hull damage to the Athos I, which totaled

$438,542.25. (Ex. P-1417a.) This claim is based on unreported damage that the Athos I sustained, which was discovered when the vessel was dry docked in Mobile, Alabama. The damage could not be repaired in Mobile because that port did not have the capability to manage the volume of contaminated liquid still aboard the Athos I. (Ex. P-1429.) BMT Salvage inspected the Athos I, itemized the repairs, and estimated that the remaining repairs would cost $438,542.25. (Ex. P-1417a.)

220. The fifth category of damages is described as "vessel/miscellaneous port expenses." (Doc. No. 862 at 81.) These costs totaled $50,642.01 for stern tube oils,[95] vessel stores, and the services of BMT Salvage. (Exs. P-1429, P-1416.) Between November 26, 2004 and February 3, 2005, Frescati incurred an expense of $15,796 to supply the vessel with stern tube oil and stores during detention. Additionally, Frescati incurred $34,846.01 for BMT Salvage's marine survey and salvage work related to the casualty. CARCO does not contest this category of expenses.

221. Frescati seeks recovery of stipulated damages in the amount of $6,649,082.90. (Doc. No. 862 at 82.) Frescati and CARCO have stipulated to the amount of damages for three items: hull damage, loss of hire, and a natural resource damage assessment. (Doc. Nos. 518, 526.) Frescati seeks to recover $3,925,585.11 for hull damages, which represents costs it incurred to find and remove the anchor, to repair the Athos I temporarily to facilitate the move from the Port of Philadelphia to a dry dock in Mobile, Alabama, and to

[95] Stern tube oil is a lubricant used for rust protection and to prevent corrosion on the stern tube of a ship. The stern tube is a long circular tube that supports the propeller shaft of the ship.

permanently repair the hull plates damaged by the anchor in the approach to CARCO's berth. (Doc. No. 863 ¶ 30.) Frescati also asserts that it is entitled to damages in the amount of $2,100,000 for loss of hire to compensate it for its lost earnings while the Athos I was out of use and awaiting repairs. (*Id.* ¶ 32.) Finally, Frescati seeks to recover $623,497.79, listed on the damages chart as the natural resource damage assessment, for costs it incurred during the early phases of the oil spill cleanup while working with the United States Fish & Wildlife Service and other federal and state trustees to engage in a preliminary evaluation of the environmental damage the oil spill caused. (*Id.* ¶ 34.)

H. Prejudgment Interest

222. The casualty occurred over a decade ago, and an award of prejudgment interest is warranted in this case. Both Frescati and CARCO acknowledge, but dispute, the method of calculating prejudgment interest. Frescati's expert, Dr. William Dunkelberg, and CARCO's expert, Dr. Kenneth Boudreaux, offered opinions on the appropriate prejudgment interest rate to be used here, based in part on which entity they believed ultimately paid for the cost of the cleanup, and the rate at which this entity would borrow funds to cover this expense. Dr. Dunkelberg assumed that either Frescati or Tsakos paid for the cost of the cleanup, and opined that the United States Prime Rate was the most accurate rate to be applied. (Dunkelberg Tr., 30:3-31:3, 32:17-19, Mar. 26, 2015.) He was not clear on how he arrived at the assumption that Frescati or Tsakos paid for the cleanup. He stated, "I think I knew that the payment was made by the P&I Club. But when you ask who makes the payment, it's the members of the club who sent their contributions

to the P&I Club." (Dunkelberg Tr., 54:4-7, Mar. 26, 2015.)

223. Conversely, Dr. Boudreaux explained that he had not seen evidence of payments, but he was told that the United Kingdom P&I Club and the International P&I Club made payments for more than 90% of the cleanup efforts. (Boudreaux Tr., 34:23-35:12, Apr. 9, 2015.) Dr. Boudreaux noted that "P&I Clubs are . . . mutual associations that fund themselves by draws . . . or calls on their members to contribute to the reserves . . . . Being mutual companies, they don't go outside to borrow money the way we are talking about here. If they needed money, they would issue a call to their members." (Boudreaux Tr., 38:15-22, Apr. 9, 2015.) Dr. Boudreaux conceded that he had not been provided with any "concrete evidence about who paid what and when with respect to Frescati or Tsakos." (Boudreaux Tr., 30:22-23, Apr. 9, 2015.)[96]

224. The most likely entity to have paid ultimately for the cleanup effort was the International Group of P&I Clubs as a mutual association which would indemnify its members, in this case Tsakos and Frescati. However, no documentation was provided to demonstrate that this entity borrowed funds to pay for the cleanup or related expenses.

225. CARCO asserts that if prejudgment interest should be awarded at all, it should be calculated in one of two ways. First, CARCO argues that the interest rate should be the United States Treasury Rate set

[96] Since the Government reimbursed Frescati nearly $88 million, both Dr. Dunkelberg and Dr. Boudreaux essentially were speculating about which entity finally paid the balance of about $55 million.

forth in 28 U.S.C. § 1961(a).[97] Second, in the alternative, CARCO asserts that the interest rate should be the London Interbank Offered Rate ("LIBOR") plus 0.5%. (Boudreaux Tr., 57:3-8, Apr. 9, 2015.)

226. CARCO and the Government stipulated that, in the event the Government is entitled to any recovery and prejudgment interest, the interest will be calculated using the rate set in OPA, 33 U.S.C. § 2705(b)(4).[98]

227. Because the record does not definitively reflect which entity finally paid for the cleanup and associated costs (i.e., whether it was Frescati or a P&I Club), apart from the Government's reimbursement, the Court will not use the United States Prime Rate or the LIBOR plus 0.5% rate. Instead, the Court finds that

---

[97] 28 U.S.C. § 1961(a) provides:

> Interest shall be allowed on any money judgment in a civil case recovered in a district court. Execution therefor may be levied by the marshal, in any case where, by the law of the State in which such court is held, execution may be levied for interest on judgments recovered in the courts of the State. Such interest shall be calculated from the date of the entry of the judgment, at a rate equal to the weekly average 1-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System, for the calendar week preceding[ ] the date of the judgment. The Director of the Administrative Office of the United States Courts shall distribute notice of that rate and any changes in it to all Federal judges.

[98] 33 U.S.C. § 2705(b)(4) provides:

> The interest paid under this section shall be calculated at the average of the highest rate for commercial and finance company paper of maturities of 180 days or less obtaining on each of the days included within the period for which interest must be paid to the claimant, as published in the Federal Reserve Bulletin.

Frescati is entitled to an award of prejudgment interest at the United States one-year Treasury Rate specified in 28 U.S.C. § 1961(a). The interest is to be compounded annually pursuant to 28 U.S.C. § 1961(b).[99] The Government is entitled to prejudgment interest at the rate specified in OPA, 33 U.S.C. § 2705(b)(4), to which the Government and CARCO stipulated.

IV. CONCLUSIONS OF LAW

A. The Court Has Subject Matter Jurisdiction Over this Case

Since this consolidated action is an admiralty case, this Court has jurisdiction pursuant to 28 U.S.C. § 1333(1). *In re Frescati*, 718 F.3d at 196.

B. Breach of Contractual Warranty

i. CARCO Agreed to a Safe Berth Warranty for the Athos I's Voyage from Puerto Miranda, Venezuela, to Paulsboro, New Jersey.

CARCO and Star Tankers agreed to a safe berth warranty, in which CARCO promised that the Athos I would be directed to a location that "she may safely get (always afloat)." *Id.* at 197. This safe berth warranty is contained in the voyage charter party between CARCO and Star Tankers. *Id.* A voyage charter party is a type of maritime contract used between a charterer and a vessel for the shipment of cargo. *Id.* at 191 (citing Julian Cooke et. al., *Voyage Charters* § 1.1 (3d

---

[99] 28 U.S.C. § 1961(b) provides: "Interest shall be computed daily to the date of payment except as provided in section 2516(b) of this title and section 1304(b) of title 31, and shall be compounded annually."

ed. 2007)). General contract principles govern maritime contracts, including voyage charter parties. *Id.* at 198. Therefore, the voyage charter party and its safe berth warranty must be interpreted by its terms and "consistent with the intent of the parties." *Norfolk S. Ry. Co. v. Kirby*, 543 U.S. 14, 31 (2004).

The safe berth warranty states as follows:

> The vessel . . . shall, with all convenient dispatch, proceed as ordered to Loading Port(s) named . . . or so near thereunto as she may safely get (always afloat) . . . and being so loaded shall forthwith proceed, as ordered on signing Bills of Lading, direct to Discharging Port(s), or so near thereunto as she may safely get (always afloat), and to deliver said cargo.

(Voyage Charter Party, Ex. P-357, Part II, ¶ 1). It further provides:

> The vessel shall load and discharge at any safe place or wharf, or alongside vessels or lighters reachable on her arrival, which shall be designated and procured by the Charterer, provided the Vessel can proceed thereto, lie at, and depart therefrom always safely afloat, any lighterage being at the expense, risk and peril of the Charterer. The Charterer shall have the right of shifting the Vessel at ports of loading and/or discharge from one safe berth to another on payment of all towage and pilotage shifting to next berth, charges for running lines on arrival at and leaving that berth, additional agency charges and expense, customs overtime and fees, and any other extra port charges or port expenses incurred by reason of using more than one berth. Time consumed on

> account of shifting shall count as used laytime except as otherwise provided in Clause 15.

(*Id.* Part II, ¶ 9).

The purpose of the safe berth warranty is to protect a vessel that agrees to deliver cargo to a charterer's port, "memorializ[ing] the relationship between the contracting entities." *In re Frescati*, 718 F.3d at 201 (citing *Park S.S. Co. v. Cities Serv. Oil Co.*, 188 F.2d 804, 806 (2d Cir. 1951)). As previously noted, the safe berth warranty triggers two separate protections: "a contractual excuse for a master who elects not to venture into an unsafe port, and protection against damages to the ship incurred in an unsafe port to which the warranty applies." *Id.* at 197 (citing 2 Schoenbaum, *supra* § 11-10, at 32-33). The Third Circuit explained that "[i]n this case, only the second benefit of the safe berth warranty is at issue" because the "Athos I was damaged in an allegedly unsafe port." *In re Frescati*, 718 F.3d at 197.

ii. Frescati Was a Third-Party Beneficiary of the Safe Berth Warranty.

Although the safe berth warranty was contained in the voyage charter party between CARCO and Star Tankers, the Third Circuit held that Frescati was a third-party beneficiary to the agreement. *Id.* at 197-98. "Before a stranger can avail himself of the exceptional privilege of suing for a breach of agreement, to which he is not a party, he must at least show that it was intended for his direct benefit." *Robins Dry Dock & Repair Co. v. Flint*, 275 U.S. 303, 307 (1927) (quoting *German All. Ins. Co. v. Home Water Supply Co.*, 226 U.S. 220, 230 (1912)). Because Frescati was not a party to the contract between CARCO and Star Tankers, "there must be a compelling showing

that it was nonetheless an intended beneficiary." *In re Frescati*, 718 F.3d at 197. The Third Circuit discussed the "showing" and concluded that, despite not being a party to the contract, "the Athos I benefits from this warranty, and Frescati, as the vessel's owner, is thus a third-party beneficiary." *Id.* at 197-98. Because Frescati has standing as a third-party beneficiary to bring a contract claim against CARCO alleging breach of the safe berth warranty, this Court must determine whether either of the parties breached this agreement.

iii. The Safe Berth Warranty Is an Express Assurance that the Port Is Deemed Safe for an Arriving Vessel.

To determine whether the safe berth warranty was breached, the scope of the safe berth warranty must be examined. The Third Circuit explained that "[a] port is deemed safe where 'the particular chartered vessel can proceed to it, use it, and depart from it without, in the absence of abnormal weather or other occurrences, being exposed to dangers which cannot be avoided by good navigation and seamanship.'" *Id.* at 200 (citations omitted). The port must be safe for the particular vessel at issue. *Id.* Furthermore, a safe port "goes beyond 'the immediate area of the port itself' to the 'adjacent areas the vessel must traverse to either enter or leave.'" *Id.* (quoting Terence Coughlin et al., *Time Charters* ¶ 10.124 (6th ed. 2008)). Put simply, "a port is unsafe—and in violation of the safe berth warranty—where the named ship cannot reach it without harm (absent abnormal weather conditions or those not avoidable by adequate navigation and seamanship)." *Id.* at 200.

The Third Circuit found that the "safe berth warranty is an express assurance made without regard to the amount of diligence taken by the charterer." *Id.* at 203. In doing so, it adopted the Second Circuit's view

that the charter party obliges the charterer to warrant the safety of berths entered.[100] *Id.* at 202. As the Second Circuit explained in *Park S.S. Co. v. Cities Serv. Oil Co.*:

> The charterer wishes to control the manner and place of discharging its cargo . . . Hence, the charterer bargains for the privilege of selecting the precise place for discharge and the ship surrenders that privilege in return for the charterer's acceptance of the risk of its choice.

188 F.2d at 806. When designating certain ports in a contract, charterers will often know more about the port and its particular dangers than the vessel owner. *In re Frescati*, 718 F.3d at 202. Furthermore, a charterer is contractually bound to provide "not only a place which he believes to be safe, but a place where

---

[100] In *Orduna S.A. v. Zen-Noh Grain Corp.*, the Fifth Circuit adopted an alternative view of the safe berth warranty. 913 F.2d 1149 (5th Cir. 1990). It held that a safe berth clause does not impose strict liability upon a voyage charterer, and the charterer is not liable for damages arising from an unsafe berth where the charterer has exercised due diligence in the selection of the berth. *Id.* In rejecting the Fifth Circuit's interpretation of the safe berth warranty, the Third Circuit explained that:

> The "commercial reality [is] that it is the charterer rather than the owner who is selecting the port or berth," [Julian Cooke et al., *Voyage Charters* ¶ 5.126 (3d ed. 2007)], and the charterer is more likely to have at least some familiarity with the port it selected. After all, charterers do not select ports without good reason (and, in the case before us, CARCO was directly on the scene, *as it had selected its own berth*). . . . To any extent a charterer, however distant, bargains to send a ship to a particular port and warrants that it shall be safe there, we see no basis to upset this contractual arrangement.

In re Frescati, 718 F.3d at 202.

the chartered vessel can discharge 'always afloat.'" *Paragon Oil Co. v. Republic Tankers, S.A.*, 310 F.2d 169, 173 (2d Cir. 1962) (quoting *Constantine & Pickering S.S. Co. v. West India S.S. Co.*, 199 F. 964, 967 (S.D.N.Y. 1912)). Because the parties contract in this way, the safe berth warranty works as an express assurance that the port will be safe for the arriving vessel. *In re Frescati*, 718 F.3d at 203. Therefore, the safe berth warranty between CARCO and Star Tankers was an express assurance from CARCO that its Paulsboro terminal would be safe for the Athos I's arrival. *Id.* It was not a mere promise that CARCO would perform due diligence in checking that the port was safe for all arriving ships. *Id.*

After considering the Third Circuit's conclusion that Frescati was a third-party beneficiary to the voyage charter party between CARCO and Star Tankers, and that the safe berth warranty contained in the contract was an express assurance that the Athos I could arrive safely at the Paulsboro facility, this Court must determine whether the uncharted anchor, the existence of which was unknown to the parties in this case, rendered CARCO's port unsafe for a ship of the Athos I's agreed-upon dimensions and draft.[101]

iv. CARCO Warranted a Safe Berth with the Understanding that the Athos I Would Be Drawing as Much as 37 Feet of Water Upon Its Arrival.

The Third Circuit held that this Court must determine whether the uncharted anchor rendered the Paulsboro port unsafe for a ship of the Athos I's agreed-upon dimensions and draft. *In re Frescati*, 718

[101] The dimensions of the Athos I as a Panamax-size ship were well-known to CARCO when the Athos I was chartered.

F.3d at 203. The Court already has found, however, that the maximum draft for the Athos I was 37 feet, as designated by CARCO in its voyage instructions to Frescati. (Voyage Instructions, Ex. P-360.)

As noted in the Findings of Fact, this Court agrees with the Third Circuit that, from the record, "CARCO warranted a safe berth with the understanding that the Athos I would be drawing as much as 37 feet of water upon its arrival." *In re Frescati*, 718 F.3d at 204. The voyage instructions indicated that the Athos I would be filled with a quantity of crude oil "always . . . consistent with a 37 [foot] or less [fresh water] sailing draft at loadport."[102] (Voyage Instructions, Ex. P-360.) Therefore, the maximum permissible arrival draft for the Athos I was 37 feet.

v. The Athos I Complied with the Draft Limitations of 37 Feet or Less.

CARCO argues that the Athos I had a draft that was more than the allowable 37 feet, due to problems with the ship and poor navigation. However, the Court disagrees. From the record, the Athos I had a draft of 36 feet, 7 inches during its approach to the Paulsboro facility. The Athos I was loaded to a draft of 36 feet, 6 inches in Puerto Miranda. (Markoutsis Tr., 198:18-

[102] As noted previously, Captain Markoutsis, the Captain of the Athos I, explained that the Athos I was loaded to a maximum draft of 36 feet, 6 inches. (Markoutsis Tr., 198:18-199:3; 200:7-201:13, Oct. 13, 2010.) During the last phase of the voyage, he confirmed the draft was less than 37 feet with Captain Teal. (Teal Tr., 51:12-52:18; 135:23-136:2; 160:11-15, Mar. 16, 2015.) Additionally, Captain Rankine, who was the Port Captain at CARCO's Paulsboro Terminal from 2002 to 2005, testified that the Athos I reported a draft consistent with 37 feet of maximum permissible draft at loadport. (Rankine Tr., 191:15-24, May 27, 2015.)

199:3; 200:7-201:13, Oct. 13, 2010.) By the time the ship arrived in the Delaware Bay, the mean draft was about 36 feet, 4 inches. (Bowman Tr., 7:21-8:22, Mar. 10, 2015.) Burning fuel and other factors caused this decrease in the ship's draft toward the aft of the ship. (Bowman Tr., 9:7-12, Mar. 10, 2015.) This resulted in the ship being trimmed by the bow. (Bowman Tr., 9:7-12, Mar. 10, 2015.) To bring the ship back to an even keel, the Athos I took on approximately 510 metric tons of ballast. (Bowman Tr., 10:1-7, 12:25, Mar. 10, 2015.)

CARCO has alleged that problems with the Athos I's ballast system caused the vessel to take on more ballast than anticipated, increasing the draft beyond 37 feet. However, the Court has found that the Athos I did not take on extra ballast. Mr. Bowman, Frescati's expert witness in naval architecture, testified that he "could not find any evidence of unreported ballast on the vessel." (Bowman Tr., 61:8-16, Mar. 10, 2015.) Mr. Hall, the maritime surveyor who inspected the Athos I after the casualty, explained that the crew properly sounded the ballast tanks. (Hall Tr., 137:19-24; 152:12-13, Mar. 4, 2015.) Most significantly, on the morning after the casualty, Mr. Hall entered the Number Six Port ballast tank, which is adjacent to Number Seven Port ballast tank, and found that it was dry. (Hall Tr., 147:4-25, 152:9-25, Mar. 4, 2015.) He testified that "[t]here were no indications of ballast . . . or recent ballast being present in the tank." (Hall Tr., 152:12-13, Mar. 4, 2015.) The Athos I did not take on extra ballast before or on the day of the spill. (Hall Tr., 137:19-24, 152:9-20, 156:5-23, 178:9-16, Mar. 4, 2015.)

Once the Athos I reached the Paulsboro terminal, tugboats had to push the vessel into the docking area to reach the berth. CARCO argued that, when the Athos I was being pushed by tugboats towards the

berth, this force caused the vessel to heel[103] or tilt to the port side, increasing the draft to more than 37 feet. However, any heel caused by the tugboats was de minimis, and would not have increased the draft beyond 37 feet. (Bowman Tr., 179:7-23, May 28, 2015.)

From the record, the Athos I had a draft of 36 feet, 7 inches during its approach to the Paulsboro facility. For this reason, Frescati complied with CARCO's maximum allowable draft of 37 feet.

vi. Exceptions to the Safe Berth Warranty for Poor Navigation and Seamanship Do Not Apply.

The Third Circuit explained that the fact that "the Athos I was injured by the anchor does not automatically indicate the warranty was breached." *In re Frescati*, 718 F.3d at 203. Although CARCO had an obligation to provide a safe port for the Athos I with a maximum draft of 37 feet, there are two exceptions that negate the safe berth warranty: (1) the presence of abnormal weather conditions, or (2) the exposure to dangers avoidable by good navigation and seamanship. *Id.* at 200. On November 26, 2004, as the Athos I approached the Paulsboro terminal, weather conditions were normal. (Teal Tr., 71:4-21, Mar. 16, 2015.) Therefore, the first exception does not apply here. The Court must then determine whether the Athos I crew exposed the ship to dangers avoidable by good navigation and seamanship.

Frescati argues that CARCO has the burden of proving poor navigation and seamanship because it was raised as an affirmative defense. On the other

---

[103] "Heel" is defined as the "inclination of a ship to one side." 8 *Benedict on Admiralty* Nautical Glossary (7th ed. 2015).

hand, CARCO asserts that this is not an affirmative defense, and that Frescati has the burden of proving that there was no poor navigation and seamanship. Regardless of which party has the burden of proving poor navigation and seamanship, or its absence, Frescati has met its burden of proof by demonstrating that any problem relating to seamanship and navigation of the vessel did not expose the Athos I to dangers that caused or contributed to the allision.[104]

CARCO argues that the Athos I crew and pilots engaged in poor navigation and seamanship sufficient to void the safe berth warranty. First, CARCO alleges that the Athos I was attempting to dock at an inappropriate time. The Court disagrees. The Third Circuit has already stated that it found "no indication in the record that the Athos I was attempting to dock at an inappropriate time." *In re Frescati*, 718 F.3d at 204 n.22. This Court finds credible the testimony of both Captain Bethel and Captain Teal, given their vast experience piloting vessels up the Delaware River, that the Athos I was not docking at an inappropriate time. Captain Bethel is an experienced docking pilot who observed a flood current and rising tide before beginning the docking maneuver. (Bethel Tr., 47:22-48:10, Mar. 17, 2015.) Captain Teal likewise testified that the tide was rising when the Athos I reached the docking site in the channel. (Teal Tr., 79:13-20, 87:1-

[104] To expect an oil tanker of the Athos I's age and size to operate without any problems, at all times, is unrealistic. The critical point is, however, whether a problem exposed the ship to dangers that could have been avoided by good navigation and seamanship. Here, the Court finds that the crew and pilots did not expose the Athos I to the danger that it would strike an unknown object through poor navigation and seamanship. In fact, there was no poor navigation and seamanship that caused or contributed to the cause of the allision.

7, Mar. 16, 2015.) The docking attempt was made within the docking window set by the Docking Pilots Assocation. Moreover, neither Captain Bethel nor Captain Teal experienced any problems with squat, which could cause insufficient underkeel clearance. (Teal Tr., 61:12-62:10, Mar. 16, 2015.)

Second, CARCO alleges that the Athos I crew and pilots engaged in such poor navigation and seamanship that the ship was in an unseaworthy condition that it negated the safe berth warranty. Historically, a seaworthy vessel is one that is "so tight, staunch, and strong" as to meet the perils of the sea. *Dupont De Nemours & Co. v. Vance*, 60 U.S. 162, 163 (1856). At common law, the test for seaworthiness is whether the vessel is reasonably fit to carry the cargo for its intended voyage. *Mitchell v. Trawler Racer, Inc.*, 362 U.S. 539, 550 (1960). In *Mitchell*, the Supreme Court explained that a vessel owner's duty is

> only to furnish a vessel and appurtenances reasonably fit for their intended use. The standard is not perfection, but reasonable fitness; not a ship that will weather every conceivable storm or withstand every imaginable peril of the sea, but a vessel reasonably suitable for her intended service.

362 U.S. at 550. The vessel must be fit for carrying the particular cargo the owner has contracted to transport. *PPG Indus., Inc. v. Ashland Oil Co.-Thomas Petroleum Transit Div.*, 592 F.2d 138, 146 (3d Cir. 1978). In this context, seaworthiness does not mean that the vessel is in perfect condition. *See Spencer Kellogg & Sons v. Buckeye S.S. Co.*, 70 F.2d 146, 148 (6th Cir. 1934) (noting that "[s]eaworthiness does not comprehend the best form of construction . . . or perfection in condition"). Rather, the "reasonably fit"

standard is relative, and covers such matters as the type of vessel, the character of the voyage, the reasonably expectable weather patterns, and the anticipated navigational conditions. *PPG Indus., Inc.*, 592 F.2d at 146.

In addition to the common law "reasonably fit" standard, most charters include a warranty with language requiring the owner to use due diligence to make the vessel seaworthy. 8 *Benedict on Admiralty* ch. XVIII, § 18.07(B) (7th ed. 2015). Due diligence consists of whatever a reasonably competent vessel owner would do under the circumstances. *The Bill*, 47 F. Supp. 969, 976 (D. Md. 1942), *aff'd*, 145 F.2d 470 (4th Cir. 1944). For example, knowledge of abnormal conditions and a failure to investigate their cause constitutes a lack of due diligence. *See Hasbro Indus., Inc. v. M/S St. Constantine*, 705 F.2d 339 (9th Cir. 1983), *cert. denied*, 464 U.S. 1013 (1983) (explaining that a ship owner, which knew that a pipe support bracket should have been attached to lube oil pipe, failed to exercise due diligence when it neglected to investigate the cause or effect of engine vibration that resulted in a dangerous fire aboard the vessel). Additionally, a vessel owner may not avoid the obligation to exercise due diligence by delegating that duty to another. 2A *Benedict on Admiralty* ch. VIII, § 84, at 8-4 (7th ed. 2015). Both the reasonably fit and due diligence standards turn on reasonableness, and do not require absolute perfection.

Most significantly, a determination that the ship is unseaworthy is relevant only if it is related to the loss of or damage to cargo. 2A *Benedict on Admiralty*, *supra* § 87, at 8-8 (citing *The Malcolm Baxter, Jr.*, 277 U.S. 323 (1928)). There must be a causal connection between the loss sustained and the unseaworthy

condition discovered. *Temple Bar*, 45 F. Supp. 608, 616 (D. Md. 1942), *aff'd*, 137 F.2d 293 (4th Cir. 1943). "If a ship is found to be unseaworthy and due diligence has not been exercised to prevent the unseaworthy condition a ship[ ]owner would not be liable unless there is a causal connection between the loss and the unseaworthy condition." *Dir. Gen. of India Supply Mission for & on Behalf of President of Union of India v. Steamship Janet Quinn*, 335 F. Supp. 1329, 1335 (S.D.N.Y. 1971). Under either the reasonably fit or due diligence standard, the party asserting that the vessel was unseaworthy would have to show that there were problems with the ship that proximately caused the casualty.

Under both the reasonably fit and due diligence standard, the Athos I was seaworthy. Even if the Athos I had problems endemic to an aging ship, any purported issues with the vessel did not proximately cause or contribute to the cause of the oil spill.

Here, as noted, CARCO asserts that the Athos I was unseaworthy, and that this unseaworthiness caused the casualty, thereby negating the safe berth warranty. In particular, CARCO alleges that the following problems made the Athos I unseaworthy:

- Frescati failed to maintain the ballast system, which rendered the vessel unseaworthy. (Doc. No. 867 at 192.)
- Frescati failed to maintain a proper safety management system in violation of Safety of Life at Sea ("SOLAS") conventions, the International Safety Management ("ISM") code, and

various U.S. regulations, which rendered the vessel unseaworthy.[105] (*Id.* at 199.)

- Frescati failed to man the Athos I with a well-trained and competent crew and monitor their performance, which rendered the vessel unseaworthy. (*Id.* at 201.)

CARCO argues that Frescati failed to maintain the ballast system, which rendered the Athos I unseaworthy. (*Id.* at 192.) In particular, CARCO alleges that the deteriorated ballast system allowed the ballast lines to open and close on their own, meaning that additional ballast water could be unintentionally added to the ballast tanks. (*Id.* at 193.) However, there is no credible evidence that the Athos I took on any extra ballast beyond what the crew had anticipated.

A few months prior to the oil spill, the Athos I was dry docked in Dalian, China for inspection and maintenance. Extensive repairs were completed at this time, including repairs to the vessel's ballast lines. Moreover, the Athos I was able to take on the 510 metric tons of ballast to bring the ship to an even keel near the entrance to the Delaware Bay. (Bowman Tr., 9:7-10:7, 12:25, 13:13-22, Mar. 10, 2015.) Had extra ballast been added during the voyage from that point to the Paulsboro terminal because the ballast system was not maintained, it would not have occurred symmetrically throughout the vessel, and the Athos I would have been listing to one side before and

---

[105] "The SOLAS Conventions and protocols constitute a comprehensive code relating to the construction of ships, their machinery and equipment, electrical installations, life saving appliances, radio telegraphy, and other matters." 2 Thomas J. Schoenbaum, *Admiralty & Maritime Law* § 18-1 at 275 (5th ed. 2012).

upon its arrival in the channel near Paulsboro. It was not listing. (Teal Tr., 85:18-22, Mar. 16, 2015; Bethel Tr., 51:2-3, 52:16, Mar. 17, 2015.) Furthermore, on the morning after the oil spill, Mr. Hall inspected the ballast tanks and found that they were dry. (Hall Tr., 147:4-6, 150:7-152:20, Mar. 4, 2015.) It was virtually impossible for the ballast tanks to be completely dry had extra, unanticipated ballast leaked aboard prior to the allision. (Hall Tr., 178:9-16, Mar. 4, 2015; 75:2-21, Mar. 6, 2015.) Finally, there is no credible evidence that ballast increased the ship's draft beyond 37 feet. Therefore, any arguably compromised ballast lines did not proximately contribute to or cause the oil spill. In any event, the Court finds that any defective condition in the ballast system did not result in the addition of ballast to the extent that it would cause or contribute to the cause of the allision.

Next, CARCO alleges that Frescati failed to maintain a proper safety management system in violation of the SOLAS standards, the ISM code, and other U.S. regulations, which rendered the vessel unseaworthy. (Doc. No. 867 at 199.) However, this argument also is unpersuasive. As the manager of the Athos I, Tsakos ensured that ships under its management implemented both mandatory and voluntary tanker safety systems and assessment programs. (Hajimichael Tr., 21:3-15, 44:8-15, Oct. 19, 2010.) Tsakos ensured that the Athos I was certified under the International Safety Management ("ISM") code. It had established a comprehensive safety management system, which regulated every aspect of tanker management. Tsakos' quality and safety management system included a planned maintenance system that covered all mechanical components of the ship. (Ex. P-332.) Tsakos inspectors regularly visited ships under its management,

including the Athos I. Even if violations were uncovered or these regulations were not specifically followed, these purported violations did not proximately cause or contribute to the casualty.

CARCO also alleges that Frescati failed to man the Athos I with a well-trained and competent crew and monitor their performance, which rendered the vessel unseaworthy. (Doc. No. 867 at 201.) Tsakos retained full management of the Athos I during the voyage in question and ensured its crew members were properly licensed and trained in accordance with the Convention on Standards for Training Competency and Watch Keeping. While the Athos I was dry docked at Dalian, Tsakos trained the ship's crew on its procedures and ensured that the crewmembers would continue to receive training while underway. (Athos I Inspections & Audits, Ex. P-1310.) The Athos I's master and navigational crew were properly licensed and experienced. (Ex. P-286; Ex. P-289; Ex. P-295; Ex. P-298; Ex. P-301.) Only a few months before the casualty, Tsakos' quality and safety department conducted an internal audit of the Athos I, which ensured that the crew was complying with Tsakos' safety management system. After the casualty, Mr. Hall even watched the Athos I crew properly perform tasks, such as sounding the ballast tanks correctly. (Hall Tr., 136:9-137:22, Mar. 4, 2015; 73:24-74:4, Mar. 6, 2015.) For these reasons, this Court finds that Frescati maintained a well-trained and competent crew on the Athos I.

In sum, the Athos I was seaworthy. It was reasonably fit to carry the cargo for its intended voyage. The Athos I was a Panamax-size vessel that could transport the oil cargo. There were no weather patterns or navigational conditions that rendered the ship unfit.

There was nothing about the character of the voyage that would alert anyone that a potential hazard to navigation in the approach to the Paulsboro terminal existed. The Athos I's crew exercised due diligence in ensuring the vessel's seaworthy condition.

CARCO's reasons why the Athos I was unseaworthy are not credible, and they did not proximately contribute to or cause the casualty. Because the Athos I was in a seaworthy condition and not exposed to dangers that were avoidable by good navigation and seamanship, the safe berth warranty was not negated. The safe berth warranty applied to the entirety of the Athos I's voyage, including its approach to CARCO's Paulsboro berth.

vii. CARCO Breached the Safe Berth Warranty by Failing to Provide Safe Passage for the Athos I, Which Was Drawing 36 Feet, 7 Inches, Upon Its Arrival.

The Third Circuit explained that "[i]f it is found that the Athos I was drawing 37 feet or less and absent a determination of bad navigation or seamanship, that finding would indicate that the warranty had been breached because the ship sustained damage." *In re Frescati*, 718 F.3d at 204-05. It further explained that,

> What, if anything, under the water may have caused that margin to be diminished is therefore immaterial. It could have been the remnants of a shipwreck, a range of rocks, a jutting reef, or a shoal. In this case, it happened to be an abandoned anchor that protruded into the Athos I's hull. And by its safe berth warranty, CARCO assumes liability for that damage.

Id. at 205. The Athos I had a draft of 36 feet, 7 inches during its approach to the Paulsboro facility. There was no proof of poor navigation or seamanship that exposed the Athos I to dangers that contributed to the Athos I's allision with the anchor. The Athos I crew and pilots engaged in good navigation and seamanship, and such navigation and seamanship could not have avoided the allision with the unknown anchor protruding more than five feet above the riverbed. Therefore, this Court concludes that CARCO breached the safe berth warranty, and is liable for this contractual breach to Frescati.

C. Negligence

i. CARCO Was Negligent in Maintaining the Approach to Its Berth.

This Court has found that CARCO breached its safe berth warranty. For this reason, Frescati is entitled to recover damages on the breach of warranty claim. According to the Third Circuit Opinion, if this finding is made, rendering a decision on Frescati's negligence claim becomes unnecessary. *In re Frescati*, 718 F.3d at 190, 215. But the parties agreed in advance that this Court should rule on the negligence claim, and they presented substantial evidence on this issue. Thus, conclusions of law on the negligence claim will be made as required by Rule 52(a) of the Federal Rules of Civil Procedure.

The Court of Appeals has set forth the elements of negligence in admiralty law:

> Negligence in admiralty law is essentially coextensive with its common law counterpart, requiring: (1) "[t]he existence of a duty required by law which obliges the person to conform to a certain standard of conduct"; (2) "[a] breach of that duty

> by engaging in conduct that falls below the applicable standard or norm"; (3) a resulting loss or injury to the plaintiff; and (4) "[a] reasonably close causal connection between the offending conduct and the resulting injury."

In re Frescati, 718 F.3d at 207 (quoting 1 Schoenbaum, *supra*, § 5-2, at 252). For CARCO to be found liable for negligent conduct in regard to the approach to its terminal, each of these elements must be proven by Frescati by a preponderance of the evidence. 1 Schoenbaum, *supra*, § 5-2, at 252 n.18. The Court will address each element in turn.

1. The Third Circuit Found that CARCO Had a Duty to Maintain a Safe Approach.

The Third Circuit held that CARCO had "a duty to maintain a safe approach to its terminal." *In re Frescati*, 718 F.3d at 207. Since the Athos I was in its final approach to the terminal when it was damaged, CARCO had a duty to Frescati to provide the Athos I with a safe approach. *Id.* at 211.

Over 100 years ago, the United States Supreme Court described the duty a wharfinger owes to ships invited to its berth. As set forth in *Smith v. Burnett*, wharfingers owe a duty:

> towards vessels which they invite to use their berthage for the purpose of loading from or unloading upon their wharf. They are . . . bound to use reasonable diligence in ascertaining, whether the berths themselves, and the approaches to them, are in an ordinary condition of safety for vessels coming to and lying at the wharf. If the approach to the berth is impeded by a visual obstruction, they must either remove it, or if that

> cannot be done, they must give due notice of it to ships coming there to use their quay.

173 U.S. 430, 436 (1899). "[T]here is a duty on the part of the owner of the wharf to those whom he invites to come alongside that wharf, and a duty in which the condition of the bed of the river adjoining that wharf may be involved." *Id.* at 436. "It is well settled that a general wharfinger is not an insurer but that he must use reasonable diligence in providing a safe berth; and that that requires the taking of reasonable precautions to remove under water obstructions that might otherwise endanger the vessels moored to his pier." *Berwind-White Coal Mining Co. v. City of New York*, 135 F.2d 443, 445 (2d Cir. 1943). Undoubtedly, CARCO had a duty to Frescati, whom it invited to its berth, to ascertain whether the approach was in an ordinary condition of safety.

More specifically, "[t]his duty includes the duty to ascertain the existence of underwater obstacles and to remove or adequately warn of such obstacles." *Sonat Marine, Inc. v. Belcher Oil Co.*, 629 F. Supp. 1319, 1326 (D.N.J. 1985), *aff'd*, 787 F.2d 583 (3d Cir. 1986) (internal citations omitted). Thus, "a visiting ship may only expect that the owner of a wharf has afforded it a safe approach." *In re Frescati*, 718 F.3d at 207 (citing *In re Nautilus Motor Tanker Co.*, 85 F.3d 105, 116 (3d Cir. 1996)). When a ship is invited "to dock at a particular port, 'a vessel should be able to enter, use and exit a wharfinger's dock facilities without being exposed to dangers that cannot be avoided by reasonably prudent navigation and seamanship.'" *Id.* (quoting *In re Nautilus*, 85 F.3d at 116). This "represents to the master of a vessel who is induced to bring his vessel to its wharf that the berth and immediate access to it are

reasonably safe for the vessel." *Id.* at 210 (quoting *The Cornell No. 20*, 8 F. Supp. 431, 433 (S.D.N.Y. 1934)).

The Third Circuit held, "[w]hat is an approach should be given its same plain meaning in the maritime context; when a ship transitions from its general voyage to a final, direct path to its destination, it is on an approach." *Id.* at 209. Thus, "in most instances the approach will begin where the ship makes its last significant turn from the channel toward its appointed destination following the usual path of ships docking at that terminal." *Id.* The Court of Appeals concluded that the Athos I "had ceased navigating generally and was within the final phase of its travel, namely that it was rotated sideways and . . . assisted by tugs." *Id.* at 210.

Accordingly, the Athos I was within the approach to CARCO's terminal when the accident occurred in the Anchorage, and CARCO "had a duty to exercise reasonable diligence in providing Athos I with a safe approach." *Id.* at 211. Though the Third Circuit found that CARCO had a duty to the Athos I to provide a safe approach, this Court has been asked to determine whether or not "CARCO satisf[ied] that duty by exercising the standard of care required of a reasonable wharfinger under the circumstances." *Id.* To answer that question and determine whether CARCO fulfilled its duty, this Court must determine the standard of care applicable here under the circumstances.

2. The Standard of Care Required CARCO to Scan the Approach Periodically Using Side-Scan Sonar and to Remove or Warn Incoming Ships of Hazards to Navigation.

As noted, the Third Circuit left to this Court on remand to decide what standard of care a reasonably prudent wharfinger in CARCO's circumstances should have followed to fulfill its duty of care as a wharfinger. *Id.* at 211. Though the standard of care required of CARCO to fulfill its duty is a question of law, "factual issues predominate here as they do in most negligence litigation." *Id.*

"Negligence exists where there was a 'fail[ure] to exercise that caution and diligence which the circumstances demand, and which prudent men ordinarily exercise.'" *Id.* (quoting *Grand Trunk R. R. v. Richardson*, 91 U.S. 454, 469 (1875)). The same is true in the admiralty context, demanding "reasonable care under the particular circumstances." *Id.* (quoting 1 Schoenbaum, *supra*, § 5-2, at 253). However, "the degree of care which the law requires in order to guard against injury to others varies greatly according to the circumstances of the case." *Id.* (quoting *Richardson*, 91 U.S. at 469-70). The Court of Appeals explained, "[i]n admiralty, the particular duty required under any given circumstance can be gleaned from statute, custom, or 'the demands of reasonableness and prudence.'" *Id.* (quoting 1 Schoenbaum, *supra*, § 5-2, at 253). The Third Circuit previously noted that no statute set the standard of care. *Id.* at 211 n.31. Therefore, the Court must decide whether custom or the demands of reasonableness and prudence set the standard.

a. Custom Does Not Establish the Standard of Care.

The Third Circuit noted that industry custom may be defined in this case by the actions of similarly situated terminals. *In re Frescati*, 718 F.3d at 212 n.31. For an industry custom to be binding, "[a] usage or custom . . . must be so uniform, long-established, and generally acquiesced in by those pursuing the particular calling as to induce the belief that the parties contracted in reliance upon it. It must be proved by instances of actual practice—a succession of individual facts . . . ." *Parkway Baking Co. v. Freihofer Baking Co.*, 255 F.2d 641, 647 (3d Cir. 1958). On the facts before the Third Circuit, the panel was "unable to make any meaningful assessment of industry custom." *In re Frescati*, 718 F.3d at 212 n.31.

CARCO asserts that the "absence of custom and statutory duty is relevant to establish the required standard of care." (Doc. No. 866 at 118; Doc. No. 867 at 264.) CARCO contends that, because no statute, regulation, custom, or practice required private terminals to survey for hazards to navigation outside of their permitted berthing area, it did not have a duty to survey the Anchorage. (Doc. No. 866 at 119.) CARCO relies on the testimony of Richard Long and William Rankine in support of this assertion. Marine Consultant and Engineer Richard Long testified that S.T. Hudson worked on thirty-one facilities on the Delaware River, which included the majority of terminals on the Delaware River.[106] (Long Tr., 20:1-5,

[106] Oil and liquid product facilities hired S.T. Hudson Engineers, a marine consulting and engineering firm, to perform hydrographic surveys and obtain dredging permits for the facilities. (Long Tr., 13:7-10, May 26, 2015.) Mr. Long personally began conducting surveys for the Paulsboro facility in 1975, when

141:11-142:23, May 26, 2015.) He testified that he only performed depth surveys for these facilities, and that he never searched the approaches for objects dangerous to navigation. (Long Tr., 13:23-14:4, 25:21-26:2, May 26, 2015.) Additionally, Captain Rankine testified that, based on his conversations with other terminal representatives, no other terminals were surveying the approaches to their berths.[107] (Rankine Tr., 106:17-20, 108:8-16, May 28, 2015.)

Initially, the Court notes that the thirty-one facilities surveyed by S.T. Hudson cover only a portion of the terminals on the Delaware, as there could be over forty marine terminals on the Delaware River. (Long Tr., 141:11-142:23, May 26, 2015.) Furthermore, Captain Rankine's testimony regarding his knowledge of what other terminal operators were doing or not doing was based on hearsay. CARCO did not present testimony from any other terminal owner to establish a custom.

But custom is only one consideration in determining the duty of care. As the Third Circuit noted, custom "is only evidence of a standard of care[,] and violation of custom or adherence to it does not necessarily constitute negligence or lack of negligence." *In re Frescati*, 718 F.3d at 212 n.31 (alteration in original) (quoting *In re J.E. Brenneman Co.*, 322 F.2d 846, 855 (3d Cir. 1963)). "A custom may be taken into account to determine the reasonableness of conduct in certain circumstances, but it is not conclusive." 1 Schoenbaum,

---

Seaview Petroleum rather than CARCO owned the terminal. (Long Tr., 26:9-27:11, May 26, 2015.)

[107] As noted already, from January 2002 to January 2005, William Rankine was the Port Captain at CARCO's Paulsboro marine terminal. (Rankine Tr., 97:11-14; 98:4-7, May 27, 2015.)

supra, § 5-2, at 253 n.19 (citing *Tittle v. Aldacosta*, 544 F.2d 752 (5th Cir. 1977); *Complaint of Paducah Towing Co*., 692 F.2d 412 (6th Cir. 1982)). The court in *Complaint of Paducah Towing Co.* highlighted this point in more detail:

> The accepted practice in an industry, however, is not a conclusive measure of reasonableness. A generally accepted industrial practice may still be negligence. "An industry's customary practices are not necessarily determinative of reasonableness." *Tucker v. Calmar Steamship Corp.*, 457 F.2d 440, 446 (4th Cir. 1972). *See In re M & J Tracy, Inc.*, 422 F.2d 929, 932 (3rd Cir. 1969) ("the fact that a process seems to have been one generally used . . . does not sanctify it"); *Venable v. A/S Det. Forenede Dampskibsselskab*, 399 F.2d 347, 353 (4th Cir. 1968). Even if vessels regularly moor with a single line close upstream from a dam without an engine idling so that an accident is unavoidable should the vessel become unmoored, we believe that such conduct, especially by a tie-off tow in the self-help program, is unreasonable. A generally accepted industrial practice will not shield a vessel from liability where the risks of injury are so substantial and foreseeable. See Note 17-18 and accompanying text, *supra*.

692 F.2d 412, 426 (6th Cir. 1982).

Here, industry custom does not define what is required of a reasonably prudent wharfinger under the circumstances. The paucity of evidence on custom failed to establish that private terminals did not have a duty to search for obstructions outside their berthing area. Moreover, a failure to meet a duty of care cannot be excused because it is customary in the industry. As

will be explained below, "the demands of reasonableness and prudence" required more from CARCO in this case and set the standard of care.

b. A Standard of Care Based on the "Demands of Reasonableness and Prudence" Required CARCO to Periodically Scan the Approach for Hazards to Navigation Using Side-Scan Sonar and to Remove the Hazards or Warn Incoming Ships of Them.

The third basis for a standard of care identified by the Third Circuit is "the demands of reasonableness and prudence." *In re Frescati*, 718 F.3d at 211 (quoting 1 Schoenbaum, *supra*, § 5-2, at 253). The Court in *In re J.E. Brenneman Co.* stated, "[i]f admiralty law does not supply the standard, that is, if the situation is not governed by statute, . . . or maritime custom, then this Court must judge the conduct . . . according to the principles of tort law, especially the principles of negligence." 782 F. Supp. 1021, 1027 (E.D. Pa. 1992). In *Burnett*, the Supreme Court held that a wharfinger is:

> bound to use reasonable diligence in ascertaining, whether the berths themselves, and the approaches to them, are in an ordinary condition of safety for vessels coming to and lying at the wharf. If the approach to the berth is impeded by an unusual obstruction, they must either remove it, or if that cannot be done, they must give due notice of it to ships coming there to use their quay.

173 U.S. at 436 (quotation omitted).

One recognized method for determining reasonableness and prudence, or to put it another way,

"reasonable diligence in ascertaining, whether the berths themselves, and the approaches to them, are in an ordinary condition of safety for vessels coming to and lying at the wharf," *id.*, is contained in Judge Learned Hand's famous risk utility formula, which originated in the admiralty case *United States v. Carroll Towing Co.*, 159 F.2d 169 (2d Cir. 1947). Using that test, the standard of care to prevent harm can be analyzed using three variables: (1) the probability of harm (P); (2) the gravity of the harm (L); and (3) the burden of precautions (B). *Carroll Towing Co.*, 159 F.2d at 173. Using Judge Hand's formula, liability depends on whether B<PL, that is, whether the burden of taking precautions is less than the probability of harm multiplied by the gravity of harm. *Id.* The Third Circuit applied this formula in *Guardian Life Insurance Co. of America v. Weisman*, 223 F.3d 229, 234 (3d Cir. 2000). There, the Court stated:

> Reasonable care . . . has long been evaluated in terms of a very conventional piece of economics: the cost of a risk-averting procedure should not exceed its expected benefit, where the measure's expected benefit in this context is calculated by multiplying the harm sought to be averted by the amount the measure reduces the likelihood of the harm occurring.

Id. (citing *Carroll Towing Co.*, 159 F.2d at 173). Indeed, "the formula is a valuable aid to clear thinking about the factors that are relevant to a judgment of negligence. . . . It gives federal district courts in maritime cases, . . . a useful framework . . . for preparing Rule 52(a) findings." *U.S. Fidelity & Guar. Co. v. Jadranska Slobodna Plovidba*, 683 F.2d 1022, 1026 (7th Cir. 1982); *see also Brotherhood Shipping Co., Ltd. v. St. Paul Fire & Marine Ins. Co.*, 985 F.2d 323,

327 (7th Cir. 1993) (applying Judge Learned Hand's formula to an admiralty case involving a city's negligence for harm to a ship in a storm).

Here, the probability of harm multiplied by the gravity of the harm exceeds the burden of the precautions taken by CARCO. First, the probability of harm to ships was high and was made higher in 1999 when CARCO convinced the Docking Pilots Association ("DPA") to open the berthing window four hours earlier. In 1999, at CARCO's request, the DPA established a docking window for the Paulsboro facility to maximize the number of vessels that could dock at CARCO's berth. (Quillen Tr., 11:10-12:9, Sept. 2, 2010; DPA Memo, Ex. P-50; Ex. P-52.) This window allowed vessels with a maximum draft of 37 feet, 6 inches to dock at CARCO's berth "from the beginning of [the] flood current until the time of one (1) hour after high water, Billingsport Range," and that "[a]ll vessels shall be docked head to the current." (Ex. P-52; Quillen Tr., 11:10-26:3, Sept. 2, 2010.) This change reduced the underkeel clearance of ships drawing 37 feet 6 inches or less by four feet. (Rankine Tr., 181:16-23, May 27, 2015.) Further, this change in the docking window increased the foreseeable risk and the probability of harm to ships heading to CARCO's berth.

Next, the gravity of harm if a ship struck an object and an accident occurred was high. From 1997 to 2004, approximately 673 vessels anchored in Federal Anchorage Number Nine. (Rankine Tr., 62:14-64:3, May 27, 2015.) From 2001 to 2004, 241 of those vessels proceeded to CARCO's Paulsboro berth. (Rankine Tr., 64:8-71:4, May 27, 2015; Ex. D-1859). These vessels carried crude oil or other toxic liquids. (Rankine Tr., 162:1-7, 162:14-21, May 27, 2015). Some of these ships, like the Athos I, were single-hulled ships. (Rankine

Tr., 146:11-21, May 27, 2015.) The potential environmental and financial loss from an oil spill was considerable.

Finally, the burden of taking precautions to prevent the harm was less than the other two factors considered together or separately. Given the volume of ships entering the Anchorage, and even when only considering the number that went to CARCO's Paulsboro berth, the burden of surveying with periodic side-scan sonar to determine if there were hazards to navigation was low. More specifically, the cost of a periodic inspection for obstructions and hazards would be small in comparison to the gravity and probability of harm. (Doc. No. 859-1 ¶ 75.) Mr. Fish, an underwater search and surveyor, estimated that in 2004, he would have charged "somewhere between $8,000 to $11,000" to survey CARCO's approach area using side-scan sonar to search for obstructions. (Fish Tr., 210:20-21, Mar. 19, 2015.) Further, Mr. Capone, a hydrographer, estimated the cost of performing a side-scan sonar survey of CARCO's approach to be between $7,500 to $11,000. (Capone Tr., 200:19-24, Mar. 18, 2015.) In fact, side-scan sonar detected the anchor after the allision that holed the Athos I. (Fish Tr., 140:20-24, Mar. 19, 2015.) The cost of side-scan sonar was less than a single day's demurrage charge for a ship like Athos I.[108] (Doc. No. 859-1 ¶ 80.) Therefore, the burden of taking the precaution of surveying with side-scan sonar would have been nominal in comparison to the gravity and the probability of harm.

---

[108] As noted, demurrage is an agreed upon rate that is charged to a charterer when the ship is delayed during the charter for whatever reason through no fault of the ship. (Rankine Tr., 179:14-18, May 27, 2015.)

After considering the specific facts of this case and the demands of reasonableness and prudence, the Court is able to make a finding on the standard of care applicable here. The standard of care is that a reasonably prudent terminal operator should periodically scan the approach to its dock for hazards to navigation as long as ships are being invited there. In this case, the standard would require that side-scan sonar be used to search the approach for obstructions that are potential hazards to navigation.[109] If an obstruction is located, a terminal operator is then required to remove it, and if the terminal operator cannot remove it, notice of the hazard must be given to incoming ships by marking it as a hazard and/or warning ships of its presence.

Here, on average, about 84 ships entered Federal Anchorage Number Nine per year, and about 60 ships docked yearly at CARCO's terminal. Despite this traffic, CARCO did not search at all for any potential hazards.

---

[109] Although based on the facts of this case side-scan sonar is the method chosen to search for obstructions under the standard of care, this is not the only method available in the industry to search for hazardous debris. Other methods include, for example, running wire drags or even sending hard-hat divers down to walk the river bottom. Since the standard of care involves factual issues, the methods may vary when the conditions in the approach to each terminal are examined. As the Third Circuit noted, "[o]f course, 'the degree of care which the law requires in order to guard against injury to others varies greatly according to the circumstances of the case.'" *In re Frescati*, 718 F.3d at 211 (quoting *Richardson*, 91 U.S. at 469-70.)

3. CARCO Breached the Standard of Care By Failing to Search for Hazards to Navigation and By Failing to Remove Them or to Warn Incoming Vessels of Their Presence.

Thus, CARCO breached its standard of care because it has admitted that it did not search the approach for obstructions and did not remove or warn incoming vessels of obstructions. The Third Circuit determined that CARCO "never specifically searched for debris or other hazards." *In re Frescati*, 718 F.3d at 194. Remarkably, Port Captain William Rankine testified, "We didn't search specifically for debris and hazards in our berthing area . . ." (Rankine Tr., 140:3-5, May 27, 2015.) Under the circumstances, CARCO breached the standard of care. *See Sonat Marine, Inc. v. Belcher Oil Co.*, 629 F. Supp. 1319, 1325 (D.N.J. 1985) (the "first act of negligence was failure to use means adequate to ensure that the new area where it thought larger barges could safely go was free of obstructions . . . .").

4. CARCO's Breach Was the Proximate Cause of Damage to the Athos I and of the Oil Spill.

Having found that CARCO breached its duty, this Court must determine whether the breach proximately caused the accident. The question is "whether the accident would have been prevented had CARCO exercised its duty to act as a prudent wharfinger within the approach. At a minimum, this requires 'that the injury would not have occurred without the defendant's negligent act.'" *In re Frescati*, 718 F.3d at 212 (quoting 1 Schoenbaum, *supra*, § 5-3, at 259). This finding turns on whether prudent behavior, which is a factual inquiry, would have prevented the accident. *Id.* In addition, although an unknown entity dropped and

abandoned the anchor in the approach to CARCO's berth, the Court of Appeals has stated "that there may be more than one proximate cause of an injury." *Id.* (quoting *Serbin v. Bora Corp.*, 96 F.3d 66, 75 (3d Cir. 1996)).

Initially, CARCO alleges that it acted prudently because it could not have foreseen that the Athos I would have collided with the unknown, abandoned anchor in Federal Anchorage Number Nine. (Doc. No. 866 ¶ 359.) But, given the circumstances, the kind of harm the Athos I suffered as a result of the submerged anchor was foreseeable and resulted from CARCO's failure to conduct side-scan sonar searches of the approach to its terminal.

Next, because CARCO was inviting oil tankers with drafts of 37 feet or less to cross the approach to its terminal at potentially low stages of the tide, CARCO's failure to conduct side-scan sonar surveys of the approach put these tankers at risk of being damaged by striking an obstruction and hazard to navigation in the approach. The Athos I was within the class of ships that CARCO put at risk by its negligent conduct.

Finally, performing side-scan sonar searches would have prevented the accident from occurring because it would have led to the discovery of the hazard or obstruction before the Athos I journeyed to CARCO's terminal. The parties have stipulated that the abandoned anchor that struck the Athos I had been in the same location within the approach for at least three years prior to the accident. *In re Frescati*, 718 F.3d at 193. Side-scan sonar would have revealed the presence of the anchor and would have allowed CARCO to either remove it from the approach, mark it as a hazard, or warn Frescati of its presence. These actions would have prevented the accident from occurring.

Because the type of risk here was foreseeable to CARCO under all the circumstances, and prudent behavior would have prevented the accident, the failure to conduct periodic side-scan sonar searches proximately caused the allision.

ii. CARCO's Claim of Negligent Navigation and Seamanship Does Not Defeat Frescati's Negligence Claim.

As stated in the Conclusions of Law regarding breach of the safe berth warranty, Frescati and its crew did not engage in poor navigation and seamanship. For this reason, CARCO's contention that this conduct amounts to a superseding cause of the accident is without merit.

Moreover, to prevail on the claim of a superseding cause, CARCO is required to prove that "the defendant's negligence in fact substantially contributed to the plaintiff's injury, but the injury was actually brought about by a later cause of independent origin that was not foreseeable." *Exxon Co., U.S.A. v. Sofec, Inc*, 517 U.S. 830, 837 (1996) (quoting 1 Schoenbaum, *Admiralty and Maritime Law* § 5-3, at 165-66 (2d ed. 1994)). "Superseding cause operates to cut off the liability of an admittedly negligent defendant . . . where there is an absence of proximate causation." *Id.*

The accident here was not brought about by any alleged conduct of the Athos I crew or Frescati. It was proximately caused only by the negligent conduct of CARCO. No negligent navigation or seamanship was the superseding cause of this accident. Thus, Frescati is entitled to a judgment in its favor on the negligence claim.

D. The Pennsylvania Rule Does Not Afford CARCO Any Relief.

CARCO contends that a rule known as the "Pennsylvania Rule" applies in this case and would bar Frescati from recovering. The Pennsylvania Rule, established long ago in the case *The Pennsylvania*, provides, "when . . . a ship at the time of a collision is in actual violation of a statutory rule intended to prevent collisions, it is no more than a reasonable presumption that the fault, if not the sole cause, was at least a contributory cause of the disaster." 86 U.S. 125, 136 (1873). When the Pennsylvania rule applies, it shifts the burden to the owner or operator of the ship to show that its fault could not have been the cause of the accident. *Id.* The Pennsylvania Rule initially has three elements:

> (1) proof by a preponderance of the evidence of a violation of a statute or regulation that imposes a mandatory duty; (2) the statute or regulation must involve marine safety or navigation; and (3) the injury suffered must be of a nature that the statute or regulation was intended to prevent.

In re Nautilus, 85 F.3d 105, 114 (3d Cir. 1996).

If the Pennsylvania Rule applies, the violator may rebut the presumption that the fault, if not the sole cause, was at least a contributory cause of the disaster. There are several ways to do so. First, "a violator of a navigational statute may not be held liable under the Pennsylvania Rule if the other party to the accident is found to be solely responsible." 2 Schoenbaum, *supra*, § 14-3, at 126. Second, the violator may rebut the presumption "by making a clear and convincing showing that the violation could not have been a proximate cause of the collision, [ ] or by demonstrating that the

accident would have occurred despite the statutory violation." *In re Nautilus*, 85 F.3d at 114 (citations omitted). This precept was confirmed by the Supreme Court in *The Martello*, which held that "a vessel guilty of statutory fault must satisfy the burden of proving that the statutory violation 'could not by any possibility have contributed to the collision.'" 2A *Benedict on Admiralty*, *supra* § 87, at 8-9 (quoting *The Martello*, 153 U.S. 64, 75 (1894)).

The Pennsylvania Rule "applies only to violations of statutes that delineate a clear legal duty, not regulations that require judgment and assessment of a particular circumstance." *Tokio Marine & Fire Ins. Co. v. FLORA MV*, 235 F.3d 963, 966 (5th Cir. 2001). The Pennsylvania Rule does not shift the burden where a party failed to comply with regulatory language that is "suggestive, rather than mandatory." *Id.* at 967. Moreover, although both *The Pennsylvania* and *The Martello* decisions concerned liability arising out of a collision, "their principle is part of cargo damage law." 2A *Benedict on Admiralty*, *supra* § 87 at 8-9. Thus, "[i]f the condition of a vessel as to structure, stowage, or manning violates a statute or a binding regulation, she is not only unseaworthy but is guilty of statutory fault." *Id.*

CARCO alleges that Frescati has violated various federal regulations and international maritime conventions by failing to meet the requirements for voyage planning, calculation of underkeel clearance, and the master-pilot exchange. (Doc. No. 867 at 123.) First, CARCO alleges a violation of 33 C.F.R. § 157.455(a)-(b), which is a special single-hull tanker regulation issued by the Coast Guard. CARCO argues that Frescati violated this regulation by failing to plan the vessel's voyage in advance from berth to berth, failing

to include updated and correct anticipated minimum underkeel clearance, failing to consider estimated times of arrival, failing to set forth the details of the voyage plan, and failing to closely monitor and revise the plan based on changed circumstances. (Doc. No. 866 ¶ 126.) As noted above, 33 C.F.R. § 157.455(a)-(b) provides:

> (a) The owner or operator of a tankship, that is not fitted with a double bottom that covers the entire cargo tank length, shall provide the tankship master with written under-keel clearance guidance that includes—
>
> (1) Factors to consider when calculating the ship's deepest navigational draft;
>
> (2) Factors to consider when calculating the anticipated controlling depth;
>
> (3) Consideration of weather or environmental conditions; and
>
> (4) Conditions which mandate when the tankship owner or operator shall be contacted prior to port entry or getting underway; if no such conditions exist, the guidance must contain a statement to that effect.
>
> (b) Prior to entering the port or place of destination and prior to getting underway, the master of a tankship that is not fitted with the double bottom that covers the entire cargo tank length shall plan the ship's passage using guidance issued under paragraph (a) of this section and estimate the anticipated under-keel clearance. The tankship master and the pilot shall discuss the ship's planned transit including the anticipated under-keel clearance. An entry must be

made in the tankship's official log or in other onboard documentation reflecting discussion of the ship's anticipated passage.

Frescati did not violate 33 C.F.R. § 157.455(a)-(b). This Court has found that the vessel's voyage was planned adequately in advance, the Athos I had at least 5 feet of underkeel clearance at the time of the casualty, the ship docked at the correct time, and the master-pilot exchanges were conducted properly. Specifically, as already discussed, Captain Howard Teal, a Delaware River Pilot, and Captain Markoutsis, the Captain of the Athos I, before the casualty had conversations about the conditions of the river, the anticipated draft of the ship, and other pertinent matters. (Teal Tr., 51:12-52:18, 160:11-15, Mar. 16, 2015.) Captain Teal also signed a pilot card indicating the draft and other conditions of the Athos I. (Teal Tr., 59:10-23, Mar. 16, 2015; Pilot Card, Ex. P-466.) Captain Bethel, the docking pilot, also engaged in appropriate exchanges. Because the Court finds that the voyage was adequately planned, there was sufficient underkeel clearance, the docking time was correct, and the master-pilot exchanges were conducted properly, there was no violation of 33 C.F.R. § 157.455(a)-(b).

Second, CARCO alleges that the Athos I was not equipped with a wheelhouse poster as required by single-hull tankers in violation of 33 C.F.R. § 157.450. This regulation provides that "[a] tankship owner, master, or operator shall comply with [International Marine Organization (IMO)] Resolution A.601(15), Annex sections 1.1, 2.3, 3.1, and 3.2, with appendices." IMO Resolution A.601(15) provides in relevant part:

1 Introduction

1.1 . . . Administrations *are recommended* to require that the [maneuvering] information given herewith is on board and available to navigators.

1.2 The [maneuvering] information should be presented as follows:

.1 Pilot card

.2 Wheelhouse poster

.3 [Maneuvering] booklet

2 Application

2.1 The Administration *should recommend* that [maneuvering] information, in the form of the models contained in the appendices, should be provided as follows:

.1 for all new ships to which the requirements of the 1974 SOLAS Convention, as amended, apply, the pilot card should be provided;

.2 for all new ships of 100 metres in length and over, and all new chemical tankers and gas carriers regardless of size, the pilot card, wheelhouse poster and [maneuvering] booklet should be provided.

2.2 The Administration *should encourage* the provision of [maneuvering] information on existing ships, and ships that may pose a hazard due to unusual dimensions or characteristics.

IMO Resolution A.601(15) (emphasis added).

Frescati was not in violation of 33 C.F.R. § 157.450. Captain Betz testified that it was not customary for a river pilot to review the wheelhouse poster or the voyage plan. (Betz Tr., 24:4-19, Mar. 18, 2015.) He

explained that "the information that is contained [on a wheelhouse poster], some of it is also typically contained on the pilot card, such as the maneuvering characteristics of the ship, the RPMs, the engine power, things of that nature. . . . The rest of the information that is on the wheelhouse poster is not information that I need to do my job." (Betz Tr., 24:9-16, Mar. 18, 2015.) As previously stated, Captain Teal testified that he signed this pilot card. Additionally, Captain Bethel testified that the information that would have been on the wheelhouse poster is passed on to him when he boards the ship, and that he asks the Captain essentially everything he needs to know. (Bethel Tr., 71:3-23, Mar. 17, 2015.)

In addition, although it states in 33 C.F.R. § 157.450 that there shall be compliance with IMO Resolution A.601(15), this Resolution is replete with the words "recommend," "recommended," and "should encourage." The Resolution therefore has discretionary elements, rendering it suggestive rather than mandatory. In any event, even without a wheelhouse poster, an experienced captain and pilots navigated the Athos I before the allision, and they had sufficient knowledge and expertise to maneuver and dock the ship. Finally, there has been no evidence presented that the Athos I posed "a hazard due to unusual dimensions or characteristics." Thus, Frescati was not in violation of 33 C.F.R. § 157.450. Moreover, CARCO's claims of alleged violations were not the proximate cause of the allision.

Third, CARCO alleges a violation of IMO Resolution A.893(21) for failing to prepare a voyage plan. IMO Resolution A.893(21)(3.1) provides in relevant part, "On the basis of the fullest possible appraisal, a detailed voyage or passage plan should be prepared which should cover the entire voyage or passage from

berth to berth, including those areas where the services of a pilot will be used." The Resolution also provides factors which should be included in the voyage or passage plan, including but not limited to the following:

> 3.2.2) the main elements to ensure safety of life at sea, safety and efficiency of navigation, and protection of the marine environment during the intended voyage or passage; such elements should include, but not be limited to:
>
> 3.2.2.1) safe speed, having regard to the proximity of navigational hazards along the intended route or track, the [maneuvering] characteristics of the vessel and its draught in relation to the available water depth;
>
> 3.2.2.2) necessary speed alterations en route, e.g., where there may be limitations because of night passage, tidal restrictions, or allowance for the increase of draught due to squat and heel effect when turning;
>
> 3.2.2.3) minimum clearance required under the keel in critical areas with restricted water depth;
>
> . . .

IMO Resolution A.893(21). This Court has already determined that Captain Markoutsis, as well as Pilots Bethel and Teal, had an adequately planned voyage when they had primary responsibility for navigating the ship. In fact, Captain Teal testified that he did not rely on charts when undertaking navigation, but instead relied on a mental chart or his own personal knowledge and experience. (Teal Tr., 19:4-9, Mar. 17, 2015.) Additionally, Captain Betz determined that the master-pilot exchanges between Captain Markoutsis

and Pilots Teal and Bethel were adequate and appropriate. (Betz Tr., 22:8-23:4, 26:1-27:16, 47:3-23, Mar. 18, 2015.) Thus, this Court finds no violation of IMO Resolution A.893(21).

Fourth, CARCO also alleges a violation of IMO Resolution A.741(18) and 33 C.F.R. § 96.220-250, which direct ship owners to implement a written safety management system, to comply with international and national regulatory requirements, and to have in place procedures to detect and correct any non-compliance or maintenance failures. Again, the Court finds that, based on the Findings of Fact and the knowledge and expertise of the crewmembers, master, and river pilots, no violation of either of these regulations has been proven that would be a proximate cause of the allision.

Fifth, CARCO alleges a violation of Regulation 34 of the amended Chapter V of the SOLAS Convention. This Regulation provides, in relevant part:

> 1 Prior to proceeding to sea, the master shall ensure that the intended voyage has been planned using the appropriate nautical charts and nautical publications for the area concerned, taking into account the guidelines and recommendations developed by the Organization.
>
> 2 The voyage plan shall identify a route which:
>
> . . .
>
> .4 takes into account the marine environmental protection measures that apply, and avoids as far as possible actions and activities which could cause damage to the environment.
>
> 3 The owner, the charterer, or the company, as defined in regulation IX/1, operating the ship or

> any other person, shall not prevent or restrict the master of the ship from taking or executing any decision which, in the master's professional judgment, is necessary for safe navigation and protection of the marine environment.

Again, this Court has determined that Captain Markoutsis and Pilots Bethel and Teal had an adequately planned voyage. There is no evidence that Frescati prevented or restricted them from making a decision necessary for safe navigation and protection of the environment. Thus, Frescati did not violate Regulation 34 of the amended Chapter V of the SOLAS Convention.

Finally, CARCO alleges that Frescati's master-pilot exchange was in violation of 33 C.F.R. § 164.11, which was a general navigation regulation that applied to all vessels in 2004. This regulation provides:

> The owner, master, or person in charge of each vessel underway shall ensure that:
>
> (a) The wheelhouse is constantly manned by persons who:
>
> (1) Direct and control the movement of the vessel; and
>
> (2) Fix the vessel's position;
>
> (b) Each person performing a duty described in paragraph (a) of this section is competent to perform that duty;
>
> (c) The position of the vessel at each fix is plotted on a chart of the area and the person directing the movement of the vessel is informed of the vessel's position;

> (d) Electronic and other navigational equipment, external fixed aids to navigation, geographic reference points, and hydrographic contours are used when fixing the vessel's position;
>
> (e) Buoys alone are not used to fix the vessel's position; . . .

33 C.F.R. § 164.11. No credible evidence was presented that this regulation was violated. The master-pilot exchanges were performed in the proper manner, and all necessary information was exchanged. The crew of the Athos I and the River Pilots performed their duties adequately. This Court finds no violation of 33 C.F.R. § 164.11.

Thus, Frescati did not violate any of the foregoing regulations or guidelines. As noted, several of the statutes and regulations are suggestive and allow for interpretation or judgment on the part of Frescati and its crew. In addition to the language that has been pointed out in the IMO Resolution A.601(15), other regulations leave it to the discretion of the master or pilot to ensure that certain conditions are met. Even though the regulations use the words "shall ensure," they still convey discretionary decision-making because ships, routes, and conditions will vary. For this reason, experienced captains and pilots are critical to a ship's seaworthiness and navigation. The Athos I had the benefit of experienced navigators.

It appears that CARCO has relied in this case on every maintenance failure and statutory violation it could find, and contends that the statutes were not followed by Frescati or its crew or the Delaware River pilots. But the Athos I was seaworthy and navigable and operated by an experienced team. No alleged statutory or regulatory violation caused or contributed

to the allision with the anchor despite the considerable effort of CARCO to shift blame.

Lastly, Frescati has proven that the Athos I's seaworthiness did not contribute to the accident, and the crew did not engage in poor navigation and seamanship. Therefore, Frescati has made a clear and convincing showing that any alleged violation of a statute or regulation was not the proximate cause of, and did not contribute to, the collision. *See In re Nautilus*, 85 F.3d at 114. None of the alleged violations had any correlation to the accident. *Id.*

Frescati has overcome any reasonable presumption that its conduct was the cause of, or contributed to, the accident. CARCO's negligence, and not any violation of a statute or regulation by Frescati, caused this accident. For all these reasons, the Pennsylvania Rule will not afford CARCO any relief in this case.

E. CARCO's Spoliation and Best Evidence Motions

CARCO has alleged that Frescati spoliated evidence, and therefore has moved this Court for an order either dismissing this case or drawing an adverse inference against Frescati. (Doc. No. 754.) CARCO alleges that Frescati lost, destroyed, or altered the following documents: the original voyage plan of the Athos I, the rough deck log, the cargo control room log, the pump room patrol logs, the wheelhouse poster, and the original Anko Loadicator data.[110] (*Id.*) CARCO also contends that Frescati failed to produce in discovery

[110] As noted, the Anko Marine Load Planner, also referred to as the Anko Loadicator, was a computer program used aboard the Athos I to aid in cargo loading operations. The Anko Loadicator calculated the weights loaded onto a vessel, among other things. The Anko reports included the calculated data.

relevant photographs, e-mails, and other documentation relating to the Athos I casualty. (*Id.*) In addition to moving this Court for an adverse inference or dismissal, CARCO asserts that the best evidence rule, codified in Federal Rule of Evidence 1002, et seq., applies here, arguing that only originals, permissible duplicates, and other documents admissible under these rules should be considered in this case. (Doc. No. 755.)

Spoliation occurs when relevant evidence in a party's control has been suppressed or withheld from the other side. *Bull v. United Parcel Service*, 665 F.3d 68, 73 (3d Cir. 2012). A party's duty to preserve the evidence must, however, have been reasonably foreseeable. *Id.* Upon an initial showing of spoliation, the court must determine whether sanctions are appropriate by considering:

> (1) [T]he degree of fault of the party who altered or destroyed the evidence; (2) the degree of prejudice suffered by the opposing party; and (3) whether there is a lesser sanction that will avoid substantial unfairness to the opposing party, and where the offending party is seriously at fault, will serve to deter such conduct by others in the future.

Id. at 73 n.5 (quoting *Schmid v. Milwaukee Elec. Tool Corp.*, 13 F.3d 76, 79 (3d Cir. 1994)). An adverse inference is an appropriate sanction only when there has been a showing that the party intentionally or in bad faith withheld the relevant evidence requested by the other side. *Id.* at 79.

Shortly after the accident, Captain Hajimichael, President of Tsakos, instructed Captain Markoutsis to preserve all documents that might be relevant to

this case, including handwritten notes. (Hajimichael Tr., 122:4-123:8, 137:2-10, Oct. 18, 2010.) In addition, Frescati searched for and collected the documents from the Athos I for preservation and retention before the vessel was passed out of its control. (Hajimichael Tr., 123:9-124:2, Oct. 18, 2010.) To the extent that CARCO has made requests for documents relating to the Athos I allision, Frescati has produced the documents it has located. Frescati has sent over 100,000 pages of documents and other materials to CARCO over the course of this litigation. (Doc. No. 765 at 2.)

Addressing CARCO's specific allegations, with regard to the voyage plan, the evidence shows that it was standard practice onboard the ship to finalize the draft voyage plan form at the end of the voyage and to retain only the final form. The final form was produced. With regard to the rough deck log and cargo control room log, copies and photographs of pages from the log books have been produced. CARCO argues that pages are missing and the original complete log books have not been produced. However, there is no evidence that pages were removed or alterations were made intentionally or in bad faith. Additionally, CARCO alleges that the bridge log book did not contain an entry for ballasting operations on November 26, 2004. Lack of an entry does not indicate that the bridge log book was altered or spoliated.

With regard to the pump room patrol log, the log was requested by CARCO in late 2005 after the ship had been sold, and despite a search, the log was not recovered. With regard to the wheelhouse poster, there is evidence that one did not exist and was not on the ship. With regard to the Anko reports, the reports were merely reprinted with the correct date, and there is no evidence of any changes to the data.

Furthermore, regarding the photographs of the ballast system taken two weeks prior to the incident, they were emailed to a personal account and were never on the company server. Initially, CARCO has only made vague allegations regarding emails alleged to have been withheld. The photographs relate to a suggestion by CARCO that there was extra ballast on board, but there is no evidence to support that assertion. The testimony of Messrs. Bowman and Hall shows that the photographs are also irrelevant because the ballast tanks were dry. Furthermore, while the photographs are missing, there is no evidence to satisfy the bad faith requirement.

Frescati did not intentionally or in bad faith lose, alter, or destroy evidence relevant to this case. The documentation that is missing did not lead to any events that caused or contributed to the casualty. For this reason, this Court will not draw an adverse inference against Frescati, and will rely on the testimony of witnesses who testified at the Rule 63 proceeding and other evidence that properly may be considered. Moreover, the testimony and exhibits presented at the Rule 63 proceeding did not violate the best evidence rule. Consequently, CARCO's spoliation and best evidence motions will be denied.

F. CARCO's Equitable Defenses

CARCO argues that its liability for the casualty should be limited by three equitable defenses. They are equitable recoupment, equitable estoppel, and unjust enrichment. (Doc. No. 867 at 219-51.) CARCO does "not request affirmative relief, [but] has asserted its equitable rights and defenses solely for the purpose of offsetting or reducing the Government's subrogation claim." (*Id.* at 221.) CARCO's equitable defenses apply

to the Government through its subrogation claim, and do not apply to Frescati.

Over a century ago, the Supreme Court noted in *The Eclipse*, "While the court of admiralty exercises its jurisdiction based on equitable principles, it has not the characteristic powers of a court of equity." 135 U.S. 599, 608 (1890). Over time, however, courts have retreated from the traditional rule against equity outlined in *The Eclipse*. 1 *Benedict on Admiralty* ch. VIII, § 126 (7th ed. 2015). For instance, in *Swift & Co. Packers v. Compania Colombiana del Caribe, S.A.*, the Supreme Court permitted equitable relief when it was "subsidiary to issues wholly within admiralty jurisdiction." 339 U.S. 684, 692 (1950). The Court explained that to do otherwise would "hobble a legal system that has been so responsive to the practicalities of maritime commerce and so inventive in adapting its jurisdiction to the need of that commerce." *Id.* at 691. The doctrine of *The Eclipse* has "been much criticized, has been narrowed by statute, and has been abandoned altogether by some lower courts." 1 *Benedict on Admiralty*, *supra* § 126; *see also Rice v. Charles Dreifus Co.*, 96 F.2d 80, 83 (2d Cir. 1938) ("Courts of admiralty have always professed to proceed upon equitable principles").

Courts are now inclined to grant equitable relief in admiralty disputes. 1 *Benedict on Admiralty*, *supra* § 126. In *Pino v. Protection Maritime Ins. Co.*, the First Circuit stated:

> [W]e find no constitutional, statutory or policy reasons of substance for recognizing a continued limitation upon the power of federal courts sitting in admiralty, nor does it seem likely that the Supreme Court would today adhere to the traditional rule. District courts sitting in admiralty, which now operate under virtually the same

> procedures as they do otherwise, should be able to provide the kind or degree of remedy that will properly and fully redress an injury within their jurisdiction, in keeping with the same principles as they would apply in other comparable cases. . . . [W]here equitable relief is otherwise proper under usual principles, it will not be denied on the ground that the court is sitting in admiralty.

599 F.2d 10, 16 (1st Cir. 1979), *cert. denied*, 444 U.S. 900 (1979) (internal citations omitted); *see also Kingstate Oil v. M/V Green Star*, 815 F.2d 918, 922 (3d Cir. 1987) (stating that "[a] district court sitting in admiralty . . . has inherent equitable power to give priority to claims arising out of the administration of property within its jurisdiction where 'equity and good conscience' so require."); *Oil Shipping (Bunkering) B.V. v. Royal Bank of Scotland*, 817 F. Supp. 1254 (E.D. Pa. 1993) (explaining that the court's inherent equitable power may be exercised in admiralty disputes).

In granting equitable relief when justice so requires, a court may apportion damages or determine the scope of such relief based on equitable principles. In *Pino*, the First Circuit recognized that courts "should be able to provide the *kind or degree* of remedy that will properly and fully redress an injury within their jurisdiction." *Pino*, 599 F.2d at 16 (emphasis added). There, the First Circuit assessed the scope of the injunction granted by the trial court to ensure that it was "properly tailored 'to remedy the specific harm shown.'" *Id.* (citation omitted). Granting equitable relief must be done carefully to address the harm shown while simultaneously preventing unjustified, blanket grants of relief. *See Kingstate Oil*, 815 F.2d at 922 (assessing whether the district court granted the appropriate scope of injunctive relief); *see also*

Black v. Red Star Towing & Transp. Co., 860 F.2d 30, 34 (2d Cir. 1988) (explaining that "equity, which 'is no stranger in admiralty,'" required a third party tortfeasor to reimburse an innocent ship owner, but limited recovery to the third party's proportionate share of fault). Accordingly, courts sitting in admiralty may evaluate both the type of equitable remedies available and to what extent such remedies should be applied. Since equitable principles apply in admiralty disputes, the Court will carefully examine the equitable defenses CARCO has asserted here.

This Court has already concluded that CARCO breached the safe berth warranty by failing to provide a safe approach for the Athos I, which was sailing with a draft of less than 37 feet. As a result, CARCO is fully liable to Frescati for breach of the safe berth warranty. The Government, as a statutory subrogee, stands in the shoes of Frescati on the breach of the safe berth warranty. For the reasons that follow, however, this Court finds that the Government's conduct warrants an equitable finding that CARCO is not fully liable to the Government on its nearly $88 million reimbursement claim.

i. CARCO Is Not Precluded from Raising Equitable Defenses Against the Government by Virtue of the Government's Statutory Subrogation Claim Under the Oil Pollution Act of 1990.

Initially, the Government contends that by virtue of its position as Frescati's statutory subrogee pursuant to the terms of OPA, CARCO is precluded from raising equitable defenses to its subrogation claim. (Doc. No. 864 at 65.) In particular, the Government argues that its right to subrogation under OPA displaces equitable principles. (*Id.* at 65.) As a result, the Government

asserts that CARCO is barred from raising equitable defenses in response to its subrogation claim. For the following reasons, this Court disagrees.

Under the provisions of OPA, the Government may assume the position of a subrogee to pursue claims against a person responsible for oil pollution. Subrogation occurs when "'one person is allowed to stand in the shoes of another and assert that person's rights against' a third party." *US Airways, Inc. v. McCutchen*, 133 S. Ct. 1537, 1546 n.5 (2013) (quoting 1 D. Dobbs, *Law of Remedies* § 4.3(4), at 604 (2d ed. 1993)). OPA established a statutory right to subrogation by providing:

> Any person, including the Fund, who pays compensation pursuant to this Act to any claimant for removal costs or damages shall be subrogated to all rights, claims, and causes of action that the claimant has under any other law.

33 U.S.C. § 2715(a).

OPA has another provision that can make the Government a subrogee. Under 33 U.S.C. § 2712(f), "[p]ayment of any claim or obligation by the Fund under this Act shall be subject to the United States Government acquiring by subrogation all rights of the claimant or State to recover from the responsible party." Once the Fund has compensated a claimant, it is subrogated to all rights the claimant has under any law. 33 U.S.C. § 2715(a).

The Government's right to subrogation under OPA does not preclude all equitable defenses. As the savings provision of OPA explains,

> Except as otherwise provided in this Act, this Act does not affect—

> (1) admiralty and maritime law; or
>
> (2) the jurisdiction of the district courts of the United States with respect to civil actions under admiralty and maritime jurisdiction, saving to suitors in all cases all other remedies to which they are otherwise entitled.

33 U.S.C. § 2751(e). The Government contends that the language "except as otherwise provided" in this Section preempts equitable defenses. (Doc. No. 864 at 65.) Specifically, the Government argues, "the savings clause may not be used to limit rights established by OPA." (*Id.*) This interpretation is unpersuasive. First, the savings clause allows other claims and defenses arising out of admiralty law to be raised, even when provisions of OPA are included in the dispute. Second, the savings clause alone is not being used to "limit the rights established by OPA." Rather, it merely allows other matters arising under admiralty law, including defenses, to be raised.

The partial settlement agreement between the Government and CARCO and the directives in this case from the Third Circuit indicate that CARCO is not barred from raising equitable defenses against the Government.[111] First, the partial settlement agreement between CARCO and the Government shows that the Government's rights against CARCO are limited. In the settlement agreement, the Government waived all rights against CARCO that might exist apart from the voyage charter party and the bill of lading. (Doc. No. 340-1.) It provides that the Government will not "assert, file, commence, prosecute, or

---

[111] As noted earlier, the Government settled with CARCO on any negligence claim and is only a subrogee on the breach of the safe berth warranty claim.

pursue any other claims, demands, causes of action, or legal theories of recovery against CITGO based in tort, equity, strict liability, nuisance, trespass, or any other common law or statute against CITGO." (*Id.*) This provision alone would prevent the Government from asserting any claim under OPA against CARCO that would bar CARCO's equitable defenses.

Second, the Third Circuit expressly stated that it "decline[d] to preclude CARCO from revisiting any previously raised equitable defense to the Government's subrogation claims." *In re Frescati*, 718 F.3d at 214.[112] Given the Third Circuit's directive that "the question of subrogation defenses [by CARCO] is better resolved with the benefit of a full trial record," and for the reasons noted above, this Court concludes that CARCO may raise equitable defenses. *See id.* (citing J.A. at 101). Therefore, an examination of each equitable defense asserted by CARCO will be undertaken.

---

[112] As the Third Circuit noted:

> The Government argues that CARCO has attempted to circumvent this partial settlement agreement by presenting against it negligence claims couched as equitable defenses. CARCO explicitly retained "the right to raise affirmative defenses under any theory or doctrine of law or equity, the right to assert setoff or recoupment and the right to assert compulsory or non-compulsory counterclaims other than a Claim for Contribution or Indemnity . . ." J.A. at 97 (Release ¶ 4.2). It was further agreed that the partial settlement would have no force as to CARCO's suit with Frescati. *Id.* at 97-98 (Release ¶ 4.3).

In re Frescati, 718 F.3d at 214 n.34.

ii. CARCO's Defense of Equitable Recoupment Will Reduce the Amount of Reimbursement to the Government.

CARCO argues that the equitable defense of recoupment limits the Government's recovery for the cleanup expenses resulting from the Athos I oil spill.[113] Recoupment is a common law equitable doctrine that is purely defensive in character, and can be used only to defeat or diminish a plaintiff's recovery. *United States v. Am. Color & Chem. Corp.*, 858 F. Supp. 445, 451 (M.D. Pa. 1994). In other words, "[r]ecoupment is a common law, equitable doctrine that permits a defendant to assert a defensive claim aimed at reducing the amount of damages recoverable by a plaintiff." *Pension Benefit Guar. Corp. v. White Consol. Indus. Inc.*, 72 F. Supp. 2d 547, 550 (W.D. Pa. 1999) (quoting *United States v. Keystone Sanitation Co., Inc.*, 867 F.Supp. [sic] 275, 282 (M.D. Pa. 1994)). Equitable recoupment is a defense that "seeks to diminish a claim or to defeat recovery rather than to share in it." *Folger Adam Security, Inc. v. DeMatteis/MacGregor, JV*, 209 F.3d 252, 260 (3d Cir. 2000) (citing *Black's Law Dictionary* 419 (6th ed. 1990)). CARCO's defense of recoupment relies on equity, and in no way relies on allegations or evidence of negligence on the part of the Government. (Doc. No. 867 at 223.) In assessing recoupment as a defense, the court examines the

[113] CARCO concedes that its equitable defenses can result in a whole or partial offset of the Government's claim. In CARCO's Post-Trial Brief on Liability, it states, "CARCO has expressly pleaded equitable defenses, including the equitable doctrine of recoupment, as an offset *in whole or in part* to the Government's claims." (Doc. No. 867 at 218 (emphasis added).)

transaction as a whole to determine whether the facts warrant application of the defense.

Recoupment allows a defendant to assert a defense that might otherwise be barred if it was brought in a separate action. For example, recoupment can be asserted, and sovereign immunity is waived, when the Government brings suit. *See United States v. Shaw*, 309 U.S. 495, 502 (1940) (allowing waiver of sovereign immunity asserted against a cross-claim when the Government voluntarily sued); *see also United Philippine Lines, Inc. v. Submarine USS Daniel Boone*, 475 F.2d 478, 479 (4th Cir. 1973) (holding that the United States waived sovereign immunity by taking the position of a private litigant and asserting a counterclaim against a vessel that collided with a United States submarine). Because the Government brought suit against CARCO here, its sovereign immunity is waived as to CARCO's recoupment defense.

The Government also asserts that CARCO is barred from asserting the equitable defense of recoupment because it was not raised as a separate, quantifiable "claim." (Doc. No. 864 at 60.) Rather, it asserts that recoupment was raised solely as a defense to CARCO's liability. (*Id.*) This argument is flawed for two reasons. First, the Court finds that CARCO is pursuing its equitable rights through a claim. Second, recoupment may be pled either as a claim or as a defense.

CARCO is pursuing its equitable rights pursuant to the limited settlement agreement with the Government. (Doc. No. 340-1.) The settlement agreement provides, in part:

> It is further understood and agreed by the Parties that CITGO reserves and retains each and every substantive and procedural right available to a

> defendant in connection with the claims asserted by the United States in the Lawsuit which is not expressly waived or released by CITGO in Section 3.1 of this Agreement, including but not limited to the right to raise affirmative defenses under any theory or doctrine of law or equity, *the right to assert setoff or recoupment and the right to assert compulsory or non-compulsory counterclaims* other than a Claim for Contribution or Indemnity, none of which rights are waived, relinquished, limited, conditioned, released or discharged by this Agreement, except and to the extent expressly waived and released by CITGO in Section 3.1 of this Agreement.

(*Id.* ¶ 4.2 (emphasis added).) Pursuant to this limited settlement agreement, CARCO is raising the claim that the Government shares responsibility for the allision and that CARCO has the right to a setoff or recoupment, which could have been raised as a counterclaim.

In addition, recoupment may be pled either as a claim or as a defense. Although it may be better practice to assert recoupment as a counterclaim under Rule 13(a) of the Federal Rules of Civil Procedure, recoupment may also be pled as a defense. The Supreme Court has recognized that "it is not clear whether set-offs and recoupments should be viewed as defenses or counterclaims." *Reiter v. Cooper*, 507 U.S. 258, 263 (1993) (quoting 5 C. Wright & A. Miller, *Federal Practice and Procedure* § 1275, at 459-460 (2d ed. 1990)). Some courts have permitted recoupment as a defense, while others have narrowly recognized it only in the form of a counterclaim. *See Bull v. United States*, 295 U.S. 247, 262 (1935) (explaining that "recoupment is in the nature of a defense arising out

of some feature of the transaction upon which the plaintiff's action is grounded"); *United States v. U.S. Fidelity & Guar. Co.*, 309 U.S. 506, 511 (stating that the defendant "may, without statutory authority, recoup on a counterclaim an amount equal to the principal claim"). When it is unclear whether recoupment should be pled as a defense or as a counterclaim, "the courts, by invoking the misdesignation provision in [Fed. R. Civ. P.] 8(c), should treat the matter of this type as if it had been properly designated by the defendant, and should not penalize improper labeling."[114] 5 Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 1275 (3d ed. 2016). In its initial Answer to the Government's Complaint,

---

[114] Rule 8(c)(2) of the Federal Rules of Civil Procedure states:

> (2) Mistaken Designation. If a party mistakenly designates a defense as a counterclaim, or a counterclaim as a defense, the court must, if justice requires, treat the pleading as though it were correctly designated, and may impose terms for doing so.

Fed. R. Civ. P. 8(c). In discussing Rule 8(c), Judge (then Dean) Charles E. Clark, one of the architects of the federal rules, noted that:

> In many situations, particularly dealing with equitable defenses or defenses which formerly in chancery would have been separate bills of relief, it is easy to make a slip on the unimportant matter of designation. We put it that when the party or his attorney is mistaken, the rule applies, but often the mistake isn't his fault; it is just that he didn't know what the court was going to call the pleading, because in certain jurisdictions now you can't be sure when the court is going to regard an equitable claim of that kind as really a defense or as a counterclaim.

5 Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 1275 (3d ed. 2016) (quoting Proceedings, Cleveland Institute on the Federal Rules, 1938, at 231).

CARCO included the equitable defense of recoupment. (Civil Action No. 08-2898, Doc. No. 11.)

Regardless of whether CARCO raised a "claim" or "defense" in asserting recoupment, this Court will resolve the issue of recoupment on the merits. In this regard, the Third Circuit expressly stated that it "decline[d] to preclude CARCO from revisiting any previously raised equitable defense to the Government's subrogation claim." *In re Frescati*, 718 F.3d at 214. Given the Third Circuit's agreement that "the question of subrogation defenses [by CARCO] is better resolved with the benefit of a full trial record," the Court will examine CARCO's defense of recoupment on the merits. *Id.* (citing J.A. at 101).

Recoupment against the United States Government must "arise[ ] out of the same transaction or occurrence as the main suit and the relief sought neither exceeds nor is different from that demanded by the sovereign." *Livera v. First Nat. State Bank of New Jersey*, 879 F.2d 1186, 1195 (3d Cir. 1989) (quoting *United States v. Penn*, 632 F. Supp. 691, 693 (D.V.I. 1986)). Therefore, to recover under a theory of recoupment, the defendant must show that: (1) the defendant's claim arises from the same transaction or occurrence as the plaintiff's claim, (2) the claim seeks relief of the same kind and nature as that sought by the plaintiff, and (3) the defendant's claim is defensive in nature and does not seek affirmative relief. *United States v. Am. Color & Chem. Corp.*, 858 F. Supp. 445, 451 (M.D. Pa. 1994). CARCO argues that all three elements of recoupment are met in this case, thus precluding recovery by the Government. CARCO's argument is persuasive, except for the amount of the setoff.

First, the Government's subrogation claim and CARCO's defense arise out of the same transaction or occurrence—the Athos I oil spill. The Government's subrogation claim seeks reimbursement for expenses associated with the oil spill cleanup response. Likewise, CARCO's recoupment defense seeks to limit the Government's reimbursement costs associated with the Athos I oil spill response. Because both the Government's subrogation claim and CARCO's recoupment defense arise out of the same transaction or occurrence—the Athos I oil spill—the first element of recoupment is satisfied.

Second, the Government and CARCO seek the same kind of relief; they both seek equitable relief. A statutory mandate to pay specific monies can be considered equitable relief. *See Bowen v. Massachusetts*, 487 U.S. 879, 893-94 (1988) (explaining that "recovery of specific monies" may be considered specific equitable, and not monetary, relief). In regard to reimbursement under the provisions of OPA, a close analogy can be drawn from cost recovery actions under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). Courts recognize CERCLA cost recovery actions as equitable claims. *See United States v. Northeastern Pharmaceutical Chemical Co. Inc.*, 810 F.2d 726, 749 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987) (holding that "[w]hen the government seeks recovery of its response costs under CERCLA or its abatement costs under [the Resource Conservation and Recovery Act of 1976], it is in effect seeking equitable relief in the form of restitution or reimbursement of the costs it expended in order to respond to the health and environmental danger presented by hazardous substances"); *see also Hatco Corp. v. W.R. Grace & Co. Conn.*, 59 F.3d 400, 412 (3d Cir. 1995) (agreeing that, in a CERCLA

action, the Government was "asking for restitution of amounts that it had expended and as such was seeking a form of equitable relief."); *Tri-County Bus. Campus Joint Venture v. Clow Corp.*, 792 F. Supp. 984, 997 (E.D. Pa. 1992) (noting that it is well-established that CERCLA cost recovery claims are equitable in nature). In fact, at least one court has found that recovery of specific costs under OPA constitutes equitable relief. *See Int'l Marine Carriers v. Oil Spill Liab. Trust Fund*, 903 F. Supp. 1097, 1102 (S.D. Tex. 1994) (stating that "[r]eimbursement of OPA 'removal costs' from the Fund constitutes restitution, not damages.").

Here, the Government seeks reimbursement of funds distributed to Frescati for the Athos I oil spill response. By seeking reimbursement for the cleanup, the Government is pursuing equitable relief. Similarly, CARCO is raising recoupment as an equitable defense. Like the Government, CARCO is seeking equitable relief. Therefore, this second element of recoupment is also satisfied.

Third, CARCO has raised recoupment as part of its equitable rights and defenses and does not seek affirmative relief. As noted, the Third Circuit has recognized that recoupment "seeks to diminish a claim or to defeat recovery rather than to share in it." *Folger Adam Security, Inc. v. DeMatteis/MacGregor, JV*, 209 F.3d 252, 260 (3d Cir. 2000) (citing *Black's Law Dictionary* 419 (6th ed. 1990)). CARCO seeks to limit the Government's recovery, and is not seeking affirmative relief such as damages from or an injunction against the Government. Therefore, CARCO has met the third element of recoupment.

Since CARCO has shown that all three elements of recoupment exist in this case, it is entitled to seek limitation of the Government's subrogation claim

against it. In assessing recoupment as a defense, the court examines the transaction as a whole to determine whether facts in the full record warrant applying the equitable remedy.

The Government contends that it is not responsible for maintaining Federal Anchorage Number Nine. In making this argument, it references the Third Circuit Opinion, in which the court stated, "No Government entity, however, is responsible for preemptively searching all federal waters for obstructions." *In re Frescati*, 718 F.3d at 194. This statement is not, however, dispositive of the situation arising here. CARCO is not contending that the Government is responsible for searching all federal waterways. This case only involves a specific situation in regard to Federal Anchorage Number Nine.

The facts in this full record present troubling aspects of the Government's position. The Government represents in many ways that it maintains federally controlled waters, including Federal Anchorage Number Nine, through the actions of the Army Corps of Engineers, NOAA, and the Coast Guard. Among other things, the Government represents that it maintains federally controlled waterways by intermittently surveying these areas, managing all navigational markers, and regularly notifying the maritime community of any changes to water conditions or hazards to navigation. The Government periodically surveyed Federal Anchorage Number Nine. (DePasquale Tr., 24:3-19, Mar. 19, 2015; Long Tr., 73:1-5, May 26, 2015; Rankine Tr., 26:1-9, May 27, 2015.) The Government also regularly updated the navigational charts on the Anchorage and routinely notified mariners of any known, underwater obstructions. (DePasquale Tr., 26:15-20, Mar. 19, 2015.) Facility owners and

mariners alike rely on Government assertions that it monitors and cares for these federally controlled waterways.

The Government statutorily created the federal project waters over which it exercises control, including Federal Anchorage Number Nine. Congress passed the Rivers and Harbors Act of 1915, which authorized the establishment of "anchorage grounds for vessels in all harbors, rivers, bays, and other navigable waters of the United States whenever it is manifest . . . that the maritime or commercial interests of the United States require such anchorage grounds for safe navigation." 33 U.S.C. § 471. As the Third Circuit explained, "By 1930, a 'lack of adequate anchorage room' was creating a hazard on the Delaware River between navigating vessels and those 'awaiting accommodation at the wharves, or awaiting cargo or orders.'" *In re Frescati*, 718 F.3d at 193-94 (quoting H. Doc. No. 71–304, 24 (1930)). Therefore, the Government established Federal Anchorage Number Nine. *Id.* at 194 (citing Pub. L. No. 71–520, 46 Stat. 918, 921 (1930)). Today, the Anchorage "runs for approximately 2.2 miles along the Delaware River channel . . . and provides a place for ships to anchor so long as they do not 'interfere unreasonably with the passage of other vessels to and from Mantua Creek.'" *Id.* (quoting 33 C.F.R. § 110.157(a)(10)). It is analogous to a parking lot, where vessels anchor and sometimes wait for other ships to pass before docking or traveling further up the Delaware River. Federal Anchorage Number Nine is a federally controlled waterway.

The Government agrees that it was responsible for controlling and maintaining Federal Anchorage

Number Nine through statutes and regulations.[115] The Corps is responsible for surveying, dredging, and maintaining the Anchorage. In fact, no dredging is permitted in the Anchorage without prior approval from the Corps. 33 U.S.C. § 403; 33 C.F.R. § 320.2(b). The Corps conducts hydrographic surveys and dredges as necessary to maintain the Anchorage's project depth of 40 feet. *In re Frescati*, 718 F.3d at 194; (DePasquale Tr., 24:8-14, 40:2-10, Mar. 19, 2015). On June 23, 2004, just a few months before the casualty, the Corps performed a single-beam hydrographic survey of Federal

---

[115] As noted, the Government is responsible for maintaining federally controlled waterways. In reference to this responsibility, 33 U.S.C. § 1 grants the Secretary of the Army the power to regulate navigable waterways. It states:

> It shall be the duty of the Secretary of the Army to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor and, on conviction thereof in any district court of the United States within whose territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding $500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court.
>
> Any regulations prescribed by the Secretary of the Army in pursuance of this section may be enforced as provided in section 413 of this title, the provisions whereof are made applicable to the said regulations.

33 U.S.C. § 1. The Secretary of the Army has further delegated specific responsibilities to the Corps, NOAA, and the Coast Guard.

Anchorage Number Nine and shared the depth information with local mariners. (DePasquale Tr., 29:10-15, Mar. 19, 2015.) The Corps reports the results of the hydrographic surveys to the maritime community, including pilots, mariners and terminal users, and also publishes the survey results in "survey channel exams," which are maps of the areas the Corps has surveyed, and in "channel statements," which summarize the controlling or shallowest depths of the particular sections of the Federal Project. (Bethel Tr., 126:3-24, Mar. 17, 2015; DePasquale Tr., 26:5-27:3, Mar. 19, 2015; Ex. D-1174.) These updated maps are mailed to mariners to put them on notice of any changes. (DePasquale Tr., 26:15-20, Mar. 19, 2015.) The Corps also routinely provides its data to the Coast Guard, NOAA, the Pilots' Association, and anyone else who asks by phone, e-mail, or at Mariners' Advisory Committee meetings. (DePasquale Tr., 25:5-15, Mar. 19, 2015.) Additionally, the Corps marks or removes obstructions as they are reported to the Corps, and responds to requests from the Coast Guard, pilots, or private users to locate reported objects. (DePasquale Tr., 37:9-38:14, 73:13-74:8, Mar. 19, 2015; *see also* 33 C.F.R. § 245.10.) The Corps is authorized to remove objects that are determined to be a hazard to navigation when the owner of the object is unknown. (DePasquale Tr., 73:15-20, Mar. 19, 2015; 33 C.F.R. § 245.10.) In 2004, the Corps was equipped with single-beam, multi-beam, and side-scan sonar equipment. (DePasquale Tr., 33:14-34:3, 36:12-14, Mar. 19, 2015.)

Moreover, the Corps of Engineers makes a presentation at every Mariners' Advisory Committee ("MAC") meeting regarding dredging. (DePasquale Tr., 48:25-49:18, Mar. 19, 2015.) A question and answer period follows each presentation by the Corps, and attendees

have the opportunity to report problems to the Corps. (DePasquale Tr., 49:24-50:9, 69:9-19, Mar. 19, 2015.) MAC meetings are attended by many constituents of the maritime community, including the Corps, the Coast Guard, NOAA, Delaware river and docking pilots, facility owners and operators, terminal representatives, the Maritime Exchange (an industry group that facilitates communication between shipping and the Government), tugboat owners and operators, the Philadelphia Regional Port Authority, and architect engineering firms. (DePasquale Tr., 48:1-17, Mar. 19, 2015; Ratcliffe Tr., 64:1-65:1, Mar. 16, 2015; Rankine Tr., 72:6-10, May 27, 2015; *see also* MAC Meeting Minutes, Exs. P-748–P-751, P-753–P-756, P-759–P-760.) CARCO was a member of the local MAC and William Rankine, CARCO's Paulsboro Port Captain, attended the meetings. (Rankine Tr., 43:11-12, May 28, 2015.) Additionally, the Coast Guard makes a presentation on aids to navigation and marine safety, and NOAA makes a presentation on charting. (Rankine Tr., 73:2-25, May 27, 2015.)

NOAA is statutorily involved in surveying the Delaware River and providing information to the public. Like the Corps, NOAA conducts hydrographic surveys of the Delaware River, including Federal Anchorage Number Nine. It is primarily responsible for preparing and updating navigational charts used by mariners, which include notifications about potential obstructions to navigation. NOAA's charts provide mariners with information about water depths, and the location and depth of obstructions to navigation. NOAA's charts also show the location of aids to navigation, anchoring areas, and other navigational features. (Ex. D-1535.) Obstructions are indicated on the charts by the abbreviation "Obstn." (Ex. D-1354.) Federal Anchorage Number Nine was displayed on NOAA

Chart 12313. (NOAA Nautical Chart 12313, Ex. D-1354.) NOAA also maintains an Automated Wreck Obstruction Information System ("AWOIS") database, which publishes information on the location of known or suspected submerged wrecks and obstructions. The AWOIS website includes more than 10,000 reports, and as part of its hydrographical survey duties, NOAA reviews the AWOIS reports, determines which objects warrant field investigation, and assigns those objects to NOAA survey boats for investigation.

In addition, NOAA occasionally conducts surveys of the surrounding waterways for various federal projects. In fact, in 1981, NOAA surveyed Federal Anchorage Number Nine. (Ex. D-1517.) Additionally, in 2002, NOAA performed a hydrographic survey of the Delaware River using side-scan and multi-beam sonar. (Ex. D-1520; Ex. D-1525.) In 2004, NOAA maintained a fleet of hydrographic survey vessels that were equipped with side-scan and multi-beam sonar. (Doc. No. 555.)

Along with the Corps and NOAA, the Coast Guard is statutorily responsible for monitoring federal waterways, including Federal Anchorage Number Nine. The Coast Guard maintains all aids to navigation (buoys, lights, etc.), enforces regulations pertaining to vessels, and recommends and establishes navigable water boundaries. 33 U.S.C. § 471; 33 C.F.R. § 62.1. It is tasked with marking obstructions to navigation, including submerged structures. The Coast Guard maintains a warning communication system known as "Notice to Mariners," which is published weekly and notifies mariners of any changes and discrepancies from the charts of navigable waterways, including shoaling and the location of newly discovered hazards to navigation. 33 C.F.R. § 72.01-10. Together, these

agencies are responsible for ensuring that information concerning any changes in navigable waterways is promptly made public for the benefit of the maritime community. 33 C.F.R. § 209.325.

Collectively, these agencies represent that they maintain Federal Anchorage Number Nine.[116] Representing to wharfingers that Government agencies are "maintaining" Federal Anchorage Number Nine can lead to the inference that the Government is insuring that the Anchorage is safe for navigation. "Maintain" or "maintenance" can be interpreted in many ways.[117] Although the Government may view its maintenance of Federal Anchorage Number Nine as simply requiring it to conduct periodic depth surveys, dredging, and/or to remove known hazards or notify the maritime community about their presence, private

---

[116] As Captain Rankine explained in part: "The Corps of Engineers was responsible for maintaining that anchorage." (Rankine Tr., 45:13-21, May 27, 2015.)

[117] For example, Black's Law Dictionary defines "maintain" in the following ways, some of which are pertinent here:

> 1. To continue (something). 2. To continue in possession of (property, etc.). 3. To assert (a position or opinion); to uphold (a position or opinion) in argument. 4. To care for (property) for purposes of operational productivity or appearance; to engage in general repair and upkeep.

Black's Law Dictionary 1097 (10th ed. 2014). In addition, it defines "maintenance" in a way that is, in part, relevant here:

> 1. The continuation of something, such as a lawsuit. 2. The continuing possession of something, such as property. 3. The assertion of a position or opinion; the act of upholding a position in argument. 4. The care and work put into property to keep it operating and productive; general repair and upkeep. 5. . . . Maintenance may end after a specified time . . . .

Id.

wharfingers like CARCO view "maintenance" as much more. In relying on the information Government personnel from these agencies provided at the local Mariners' Advisory Committee meetings, and in requiring CARCO to seek permits to conduct activity within the Anchorage, as Captain Rankine testified, CARCO believed that the Government was much more involved in "maintaining" Federal Anchorage Number Nine, including the handling of underwater obstructions.

The Corps and the Coast Guard are responsible for handling hazards to navigation through a coordinated wreck removal system. The relevant federal regulation establishes the general policy for removal of obstructions in navigable waterways. 33 C.F.R. § 245.10. It states:

> (a) Coordination with Coast Guard. The Corps of Engineers coordinates its wreck removal program with the Coast Guard through interagency agreement, to insure a coordinated approach to the protection of federal interests in navigation and safety. Disagreements at the field level are resolved by referral to higher authority within each agency, ultimately (within the Corps of Engineers) to the Director of Civil Works, who retains the final authority to make independent determinations where Corps responsibilities and activities are affected.
>
> (b) Owner responsibility. Primary responsibility for removal of wrecks or other obstructions lies with the owner, lessee, or operator. Where an obstruction presents a hazard to navigation which warrants removal, the District Engineer will attempt to identify the owner or other responsible

> party and vigorously pursue removal by that party before undertaking Corps removal.
>
> (c) Emergency authority. Obstructions which impede or stop navigation; or pose an immediate and significant threat to life, property, or a structure that facilitates navigation; may be removed by the Corps of Engineers under the emergency authority of section 20 of the Rivers and Harbors Act of 1899, as amended.
>
> (d) Non-emergency situations. In other than emergency situations, all reported obstructions will be evaluated jointly by the District Engineer and the Coast Guard district for impact on safe navigation and for determination of a course of action, which may include the need for removal. Obstructions which are not a hazard to general navigation will not be removed by the Corps of Engineers.
>
> (e) Corps removal. Where removal is warranted and the responsible party cannot be identified or does not pursue removal diligently, the District Engineer may pursue removal by the Corps of Engineers under section 19 of the Rivers and Harbors Act of 1899, as amended, following procedures outlined in this CFR part.

33 C.F.R. § 245.10. The Corps, NOAA, and the Coast Guard work together in removing obstructions that pose a hazard to navigation and in alerting the public to an unsafe area. *Id.*

The Government relies upon the provisions of 33 C.F.R. § 245.10 for the proposition that it has no responsibility for locating obstructions. Although the regulation states that the primary responsibility for removing obstructions is on the owner, lessee, or

operator of the obstruction, that regulation is silent on primary responsibility when the owner, lessee, or operator is unknown and no party is aware of the presence of the obstruction. If the Government is aware of the obstruction and the owner cannot be found, it may remove the obstruction. But this regulation does not absolve the Government from all responsibility when the owner and the obstruction are unknown, as in the case here. There is a void in the regulation, and on this full record, like CARCO, the Government could have taken steps to locate the anchor and to have avoided the allision.

Most significantly, the Government never suggested to CARCO that private wharfingers were responsible for surveying Federal Anchorage Number Nine for obstructions. (Rankine Tr., 182:15-19, 182:23-183:18, May 26, 2015.) In fact, the Government apparently never instructs wharfingers to inspect federal anchorages for obstructions. (Rankine Tr., 77:5-13, May 27, 2015.) Therefore, before the Athos I spill, CARCO did not do a search. (Long Tr., 74:11-20, May 26, 2015; Rankine Tr., 50:24-25, May 27, 2015.)

Richard Long, who has performed single-beam hydrographic surveys for thirty-one marine terminal facilities on the Delaware River, testified that he surveyed only the permitted berth area for each terminal. (Long Tr., 13:11-22, 14:2-4, 20:1-5, 74:11-20, 141:11-142:23, May 26, 2015.) These surveys did not extend to inspect federally controlled waterways such as anchorages. (Long Tr., 14:23-15:2, May 26, 2015.) Mr. Long explained that if he needed information about a federally controlled waterway, including the controlling depths and the existence of hazards, he would contact the Corps. (Long Tr., 74:6-10, May 26, 2015.) The Government even owned side-scan sonar

equipment commonly used for locating underwater obstructions. (DePasquale Tr., 36:12-37:8, Mar. 19, 2015.)

After assessing the Government's representations and actions with respect to Federal Anchorage Number Nine, the Court finds on this full record that the Government should be limited in its recovery from CARCO under the equitable principle of recoupment. Had the Government known about the anchor at the bottom of Federal Anchorage Number Nine, it would be prevented from any recovery from CARCO, because it would have knowingly failed to alert mariners to the danger. However, neither the Government nor CARCO knew of the anchor's presence. But the Government's statutory and regulatory representations and conduct led wharfingers to believe that Federal Anchorage Number Nine was being maintained and scanned for underwater hazards by the Government. As such, the area was not searched by CARCO, creating a hazardous condition that led to the casualty at issue in this case. Therefore, based on the forgoing, the Court concludes that the Government will be limited in its recovery against CARCO.

iii. CARCO's Reimbursement to the Government Will Be Reduced By Fifty Percent.

Since both the Government and CARCO could have taken steps to locate the unknown anchor in the Federal Anchorage, and given the above findings and conclusions on equitable recoupment, the amount CARCO is required to reimburse the Government will be reduced by fifty percent (50%). The facts in this case warrant an equitable result which compels this reduction. One half of $87,989,157.31 is

$43,994,578.66, which is the amount the Court is ordering CARCO to reimburse the Fund.

Finally, by the Court agreeing that the Government was in a position to avoid the loss for purposes of equitable recoupment, it should be clear that the Court is not finding that CARCO had no responsibility to search Federal Anchorage Number Nine for hidden obstructions. CARCO also could have done the search through side-scan sonar and, as the Court has already found, it breached the safe berth warranty to Frescati, and to the Government as a subrogee. CARCO also was negligent for failing to search and is liable to Frescati for its negligence. Moreover, the Court is not holding that the Government has an affirmative duty to search for hazards to navigation or obstructions in all federal waterways going forward. Rather, based on the facts in this case, the Court finds that the Government took actions which led CARCO to believe that the Government was maintaining Federal Anchorage Number Nine such that it would be inequitable to hold CARCO fully responsible to reimburse the Fund for the entire amount paid to Frescati from the Fund.

For all the above reasons, the Government is limited in recovering the amount that CARCO will be reimbursing the Fund. The Court finds that, on the full record, the Government's subrogation claim against CARCO should be reduced by 50%.

iv. CARCO's Theory of Equitable Estoppel Does Not Limit the Government's Recovery.

CARCO also contends that its liability to the Government is precluded in whole or in part through the doctrine of equitable estoppel. (Doc. No. 867 at

242.) Equitable estoppel may bar or limit a claim upon a showing that a plaintiff made a material misrepresentation on which the defendant reasonably relied to its detriment. *See Gibbs v. Carnival Cruise Lines*, 314 F.3d 125, 128-29 (3d Cir. 2002) (explaining that "[i]n order to sustain a claim of estoppel under federal admiralty law, a party must show that it relied in good faith on a misrepresentation of another party, and that this reliance caused it to change its position for the worse.")

CARCO alleges here that the Government misrepresented that it was maintaining and safeguarding federal project waters, including Federal Anchorage Number Nine. (Doc. No. 867 at 242.) CARCO contends that it reasonably relied on the Government's misrepresentation that it was maintaining and safeguarding Federal Anchorage Number Nine and that the misrepresentation was material. For this reason, it did not survey the Anchorage for obstructions and did not locate the anchor that caused the Athos I casualty. (*Id.* at 243.)

The parties dispute whether a defense of equitable estoppel raised against the Government should be treated differently than an ordinary equitable estoppel claim raised against private litigants. On one hand, CARCO asserts that by acting as a private party, the Government is subject to ordinary equitable estoppel standards. (*Id.* at 242.) The Ninth Circuit, though, has noted the distinction between estoppel standards based on the Government's action as a public or private party. *Santiago v. Immigration & Naturalization Service*, 526 F.2d 488, 491 (9th Cir. 1975). In *Santiago*, the Ninth Circuit explained that affirmative misconduct will be a necessary element for estoppel whenever the government acts in its "sovereign role" for the

purpose of "carrying out its unique governmental functions for the benefit of the whole public." *Id.* at 491 n.6 (quotation omitted). However, when the Government acts as a private party would act, "as distinguished from the sovereign, the government may be subject to equitable estoppel by the same standards applicable to private actions . . . with no affirmative misconduct requirement." *American Training Servs., Inc. v. Veterans Admin.*, 434 F. Supp. 988, 1003 n.35 (D.N.J. 1977) (citing *Santiago*, 526 F.2d at 491 n.6). According to CARCO, the Government is acting as a private party in asserting a breach of contract claim as a subrogee. (Doc. No. 867 at 242.) Therefore, to succeed under an ordinary estoppel defense, CARCO would need to show simply that the Government made a material misrepresentation that CARCO relied upon to its detriment.

On the other hand, the Government asserts that an equitable estoppel defense asserted against it should be treated differently. (Doc. No. 864 at 62.) In the Third Circuit, it is well settled that the Government may not be estopped on the same terms as any other litigant. *See United States v. St. John's Gen. Hosp.*, 875 F.2d 1064, 1069 (3d Cir. 1989) (explaining that, in addition to the ordinary elements of estoppel, "[w]hen estoppel is alleged against the United States, the defendant must also prove 'affirmative misconduct' on the part of the government."); *see also United States v. Asmar*, 827 F.2d 907, 912 (3d Cir. 1987) (holding that "[a] litigant must not only prove the traditional elements of estoppel, but she also must prove affirmative misconduct on the part of the government.").

In *Office of Personnel Management v. Richmond*, the Supreme Court declined to estop the Government,

even though a federal employee provided misinformation to the plaintiff on which he relied to his detriment. 496 U.S. 414, 433-34 (1990). The Supreme Court explained, "equitable estoppel will not lie against the Government as it lies against private litigants." *Id.* at 419. In so holding, the Supreme Court left open the possibility that some kind of "'affirmative misconduct' might give rise to estoppel against the government." *Id.* at 421.

The Third Circuit has adopted this heightened burden of showing affirmative misconduct to succeed on an equitable estoppel claim against the Government. *Johnson v. Guhl*, 357 F.3d 403, 409-10 (3d Cir. 2004). Thus, CARCO bears the heightened burden of showing not only the traditional elements of estoppel—that the Government made a material misrepresentation that CARCO relied upon to its detriment—but also that the Government engaged in affirmative misconduct.

The Court concludes that CARCO has not met the heightened standard for equitable estoppel against the Government; therefore, this defense will not limit the Government's subrogation claim. To reiterate, equitable estoppel will bar or limit a claim against the Government upon a showing that the Government made a material misrepresentation upon which the defendant reasonably relied to its detriment, and that the Government engaged in some affirmative misconduct in making this misrepresentation. *Asmar*, 827 F.2d at 912.

In this case, CARCO has not met its burden of establishing equitable estoppel for several reasons.

First, the Government did not make a material misrepresentation to CARCO.[118] The Government, by its actions, raised the inference that it maintained Federal Anchorage Number Nine. But the Government never said that it would search for obstructions as part of that maintenance. There is no evidence that Government agents from the Corps, NOAA, or the Coast Guard specifically told CARCO that it was surveying the Anchorage for obstructions. At best, CARCO was operating under the assumption that the Government searched for hidden obstructions in the Anchorage.

Second, the Government did not engage in affirmative misconduct. It never affirmed that it would search the Anchorage for obstructions. Although its conduct here could have led CARCO to believe that it did so, there is no evidence that Government regulatory personnel engaged in misconduct. For these reasons, CARCO's defense of equitable estoppel is unavailing.

v. CARCO's Theory of Unjust Enrichment Does Not Limit the Government's Recovery.

CARCO alleges that the Government would be unjustly enriched if it were able to collect the nearly $88 million in cleanup expenses it reimbursed Frescati. (Doc. No. 867 at 245.) Because CARCO paid into the Fund over $103 million in taxes on imported barrels of oil, it argues that the Government is not entitled to collect an additional $88 million. CARCO contends that any reimbursement would amount to unjust enrichment.

---

[118] For this reason, even if the heightened standard did not apply here, equitable estoppel has not been established.

Under federal admiralty law, a party may bring a claim for unjust enrichment. *See, e.g.*, *Archawski v. Hanioti*, 350 U.S. 532, 536 (1956). "A person who is unjustly enriched at the expense of another is subject to liability in restitution." Restatement (Third) of Restitution and Unjust Enrichment § 1 (2011). Unjust enrichment is found where "a benefit [is] obtained from another, not intended as a gift and not legally justifiable, for which the beneficiary must make restitution or recompense." *Black's Law Dictionary* 1771 (10th ed. 2014). As explained in *Enslin v. The Coca-Cola Co.*,

> Terms such as "inequitable" or "unjust" may suggest a deceptively malleable conception of the law, but the extent to which the law of restitution will "interven[e] in transactions that might be challenged as inequitable is narrower, more predictable, and more objectively determined than the unconstrained implications of the words 'unjust enrichment.'"

136 F. Supp. 3d 654, 676 (E.D. Pa. 2015) (quoting Restatement (Third) of Restitution and Unjust Enrichment § 1 cmt. b (2011)). The concern is not "with unjust enrichment in any such broad sense, but with a narrower set of circumstances giving rise to what might more appropriately be called *unjustified enrichment*." Restatement (Third) of Restitution and Unjust Enrichment § 1 cmt. b (2011). The heart of such a claim is the "transfer of a benefit without adequate legal ground." *See id.*; *see also Gulf Oil Trading Co. v. Creole Supply*, 596 F.2d 515, 520-21 (2d Cir. 1979) (finding unjust enrichment where the creditor of a vessel facing foreclosure allowed Gulf Oil to supply fuel for a ship to sail to the Bahamas purely for the purpose of

foreclosure proceedings, without compensating Gulf Oil for the cost of the fuel).

As noted, CARCO claims that the Government will be unjustly enriched if CARCO is required to reimburse the Government the nearly $88 million because it has already paid to the Fund over $103 million in taxes on imported oil. This argument misconstrues how the Fund works. Congress has provided that the Fund collects income in several ways. First, the Fund collects income through a per-barrel tax on oil. 26 U.S.C. § 9509(b)(1). Second, it receives income through recovery under OPA for damages to natural resources. 26 U.S.C. § 9509(b)(2). Third, the Fund collects income by pursuing removal costs as a statutory subrogee of a claimant of the Fund. 26 U.S.C. § 9509(b)(3). Thus, the Government has a legal basis, under 26 U.S.C. § 9509(b), to receive income from one party both for a per-barrel tax on imported oil and for any claims it pursues as a statutory subrogee. Because the Government is permitted to receive reimbursement from CARCO pursuant to this latter ground, CARCO's unjust enrichment defense is without merit.

V. DAMAGES

There are four components of Frescati's damages claim: (1) damages for six categories of claims made by Frescati and the date and amount of three principal reductions; (2) the rate of prejudgment interest; (3) the start date for accrual of interest; and (4) whether the interest is compounded.

A. Frescati Is Entitled Under Contract and Tort Law to All Damages Caused by the Incident.

Because CARCO breached its safe berth warranty and was negligent in maintaining the approach to its

berth, Frescati is entitled to a total of $55,497,375.95 in damages under both contract and tort law. "The damage rule in admiralty cases generally does not differ from ordinary contract rules." *M. Golodetz Exp. Corp. v. S/S Lake Anja*, 751 F.2d 1103, 1112 (2d Cir. 1985). In addition, "[t]he elements of a maritime negligence cause of action are essentially the same as land-based negligence under the common law." 1 Schoenbaum, *supra*, § 5-2, at 252. "When necessary, relevant state law may be used to fill in gaps in general maritime law." *Am. S.S. Co. v. Hallett Dock Co.*, 862 F. Supp. 2d 919, 930 (D. Minn. 2012).

The Court of Appeals has made clear that "a negligent defendant is liable for all the general harms he foreseeably risked by his negligent conduct and to the class of persons he put at risk by that conduct." *In re Frescati*, 718 F.3d at 212 (quoting 1 Dan B. Dobbs et al., *The Law of Torts*, § 198, at 682-83 (2d ed. 2011)). Moreover, all "harm proximately caused by negligent actions of a defendant is compensable." *Nat'l Steel Corp. v. Great Lakes Towing Co.*, 574 F.2d 339, 342 (6th Cir. 1978). Generally, "damages for negligent injury to property are assessed according to the principle that such damages serve a compensatory function and must be tailored to place the aggrieved party in as good a position as [it] was before the accident." 1 Schoenbaum, *supra* § 5-16, at 316. Likewise, in breach of contract cases, the logic is to "place the innocent party in the position in which [it] would have been if the contract had been fully performed. The award of contract damages is intended to give the non-breaching party the benefit of its bargain." *In re Am. Shipyard Corp.*, 220 B.R. 734, 737 (Bankr. D.R.I. 1998) (internal quotation marks and citations omitted), *aff'd* No. RI 98-032, 1999 WL 35128694 (B.A.P. 1st Cir. 1999). Because this Court has found that CARCO

breached its safe berth warranty and that its negligence proximately caused the allision, Frescati is entitled to damages to compensate it for its losses.

B. Frescati Has Carried its Burden of Proving All Damages.

Frescati has met its burden of proving that it is entitled to an award of damages in the amount of $55,497,375.95. Frescati had the burden to prove the amount of its damages to a reasonable degree of certainty. *ConAgra, Inc. v. Inland River Towing Co.*, 252 F.3d 979, 985 (8th Cir. 2001). It was required to establish reasonably precise figures without relying on speculation. *In re Am. Shipyard Corp.*, 220 B.R. at 737. Convincing evidence documenting the damages has been presented and credible witnesses testified to the expenses incurred. These damages were a result of CARCO's breach of warranty and negligence.

Donna Hellberg, the Lead Claims Manager for the National Pollution Funds Center ("NPFC"), testified that in the course of adjudicating this claim, the documents she reviewed were "probably in excess of 5 feet, truthfully, in magnitude" (Hellberg Tr., 134:7-9, Mar. 24, 2015), and "[Frescati] supplied in excess of 53,000 pages of documentation" (Hellberg Tr., 87:6-12, Mar. 24, 2015). Ms. Hellberg stated, "I determined that they were entitled to recover approximately [$]88 million over and above their limitation of liability, which was [$]45.4 million." (Hellberg Tr., 64:18-20, Mar. 24, 2015.)

In addition to the testimony of Donna Hellberg and the documentation, through the testimony of Ben Benson, the Qualified Individual under the Athos I's vessel response plan, and Roger LaFerriere, the Commanding Officer of the Coast Guard Atlantic Strike Team, Frescati has shown that its damages

claim is reasonable and precise. On this record, Frescati also has proven with precision the reasonableness of the damages of nearly $88 million, which the Government seeks to recover as a subrogee, but which has been reduced by the Court, and the balance Frescati claims that CARCO is liable to pay.

C. Damage Categories

Frescati is entitled to damages totaling $55,497,375.95 for its losses. The damages fall into the following six categories, as discussed below.

i. OPA Removal Costs

First, Frescati is entitled to damages in the amount of $45,317,511 for the cost to clean up the oil, or "removal costs" as required by OPA, 33 U.S.C. § 2701(31) (2013). As stated in the Findings of Fact, Frescati was able to limit its liability to this amount pursuant to 33 U.S.C. § 2704. As a result, the NPFC reimbursed Frescati $87,989,157.31, and the United States Government became subrogated to Frescati's claim against CARCO for that amount. Additionally, Frescati was able to reduce its OPA removal damages by $156,489 by selling equipment it used for the cleanup. Thus, after the NPFC's reimbursement and the sale of cleanup equipment, Frescati is entitled to $45,317,511 for its OPA removal costs. (Ex. P-1419.)

ii. Non-OPA Response Costs

Frescati is entitled to $1,541,597.79 for expenditures made in the course of its response to the spill, which the NPFC deemed not "OPA compensable." These expenses included costs incurred to manage third-party claims, to decontaminate recreational boats oiled by the spill, and to remove the anchor and pump casing from the riverbed. These were reasonable

expenses actually incurred as a direct consequence of the incident, and are recoverable.

iii. Settlement of Salem Nuclear Power Plant Claim

Additionally, Frescati is entitled to damages in the amount of $1,500,000 to recover the amount it paid to settle the claim of the Salem Nuclear Power Plant. (Ex. P-1422 at ATHOS 78119.1-78128, 78232, 78424.) Frescati may recover from CARCO indemnity for settlement with this third party claimant if it shows: (1) potential liability to a third party; (2) that "the settlement is reasonable"; and (3) that "the indemnitor has sufficient notice in which to object to the settlement terms." *Atl. Richfield Co. v. Interstate Oil Transp. Co.*, 784 F.2d 106, 112 (2d Cir. 1986). Frescati was not required to "establish that it was in fact liable to the claimant so long as the claimant's injury . . . and potential liability on the facts known to the ship are shown to exist, culminating in a settlement in an amount reasonable in view of the size of possible recovery and degree of probability of claimant's success against the ship." *Damanti v. A/S Inger*, 314 F.2d 395, 397 (2d Cir. 1963).

Frescati established all of the necessary elements to warrant recovery. The Salem Nuclear Power Plant initially submitted claims to the NPFC for lost profits and other costs incurred due to the emergency shutdown of reactors when oil from the spill appeared in the Plant's water supply intakes. Frescati's witness, Roger LaFerriere, the Commanding Officer of the Coast Guard Atlantic Strike Team, testified that the Salem Nuclear Power Plant had to be shut down for several days, which created serious concerns for Southern New Jersey in obtaining energy. (LaFerriere Tr., 16:4-8, Mar. 23, 2015.)

As a result, the NPFC adjudicated and settled the power plant's claims for $33,125,017.17, not including interest. Subsequently, in November 2008, the Salem Nuclear Power Plant asserted a claim against Frescati for $4,695,950.87, representing the interest that the NFCP [sic] had not paid because the NPFC is not statutorily obligated to pay interest on its claim awards. On March 27, 2009, Frescati tendered the defense of the claim to CARCO, but on May 28, 2009, CARCO rejected the tender offer, leaving Frescati to resolve the claim itself. (Ex. P-1422.) In October 2009, Frescati settled this interest claim for $1,500,000 in exchange for a complete release for itself and CARCO. The settlement was reasonable, and CARCO was given the opportunity to defend or resolve the claim. Therefore, Frescati is entitled to $1,500,000 in damages for its settlement with the Salem Nuclear Power Plant.

iv. Unrepaired Hull Damages

Frescati is entitled to damages in the amount of $438,542.25 for the estimated cost of repairs to the vessel's hull that were never completed. Indeed, "vessel repairs are not a prerequisite to an award for physical damages caused by a collision." *Yarmouth Sea Prod. Ltd. v. Scully*, 131 F.3d 389, 399 (4th Cir. 1997) (internal quotation marks omitted). Consequently, "[d]amages in collision cases, where the repairs are not made, can be measured either by estimated cost of repairs at a time immediately following the accident, . . . or by the diminution in the market value of the vessel." *United States v. Shipowners & Merchs. Tugboat Co.*, 103 F. Supp. 152, 153 (N.D. Cal. 1952), *aff'd* 205 F.2d 352 (9th Cir. 1953).

Here, the Court finds that Frescati is entitled to the estimated cost of repairs of the ship's hull in the

amount of $438,542.25. (Doc. No. 518; Ex. P-1417.) As stated in the Findings of Fact, Frescati was unable to repair damages to certain hull plates at the Mobile, Alabama dry dock because the dry dock facility did not have the proper accommodations to perform the repair work. However, Frescati was not required to repair the vessel hull to be awarded damages on the estimated cost of repairs. Therefore, Frescati is entitled to damages in the amount of $438,542.25 for the estimated cost of the unrepaired hull damage.

v. Damages for Vessel and Miscellaneous Port Expenses

Next, Frescati has carried its burden of proving $50,642.01 in damages for vessel and miscellaneous port expenses. (Exs. P-1415; P-1416; P-1429.) As stated in the Findings of Fact, between November 26, 2004 and February 3, 2005, Frescati incurred $15,796 in damages to supply the vessel with stern tube oil and stores during detention. Frescati also incurred $34,846.01 for BMT Salvage's marine survey and salvage work related to the casualty. CARCO did not contest the amount of either of these expenses. Thus, in total, Frescati is entitled to $50,642.01 for vessel damages and miscellaneous port expenses. (Exs. P-1415; P-1416; P-1429.)

vi. Stipulated Damages

In the category of Stipulated Damages, Frescati is entitled to damages in the amount of $6,649,082.90. As previously noted, Frescati and CARCO have stipulated to the amount of the final three expenses: Hull

Damage,[119] Loss of Hire,[120] and Natural Resource Damage Assessment[121] in the amount of $6,649,082.90. (Stipulations of the Parties, Doc. Nos. 518, 526.) Frescati is entitled to the total amount of these damages.

D. CARCO Has Not Proven the Affirmative Defense of Failure to Mitigate Damages.

CARCO did not carry its burden of proving the affirmative defense that Frescati failed to mitigate its damages. "Once a plaintiff proves its damages, a defendant has the burden to show the damages award should be limited because the plaintiff failed to take reasonable measures to mitigate its loss." *Vici Racing LLC v. T-Mobile USA, Inc.*, 763 F.3d 273, 300 (3d Cir. 2014). To prove that the costs were unreasonable, CARCO must demonstrate that Frescati's decisions in incurring costs were "palpably erroneous." *BP Exploration & Oil, Inc. v. Moran Mid-Atl. Corp.*, 147 F. Supp. 2d 333, 344 (D.N.J. 2001) (citing *Ellerman*

---

[119] Frescati seeks to recover $3,925,585.11 under the category of Hull Damage for costs it incurred to find and remove the anchor, to repair the Athos I temporarily to facilitate the move from the Port of Philadelphia to a dry dock in Mobile, Alabama, and, subsequently, to permanently repair the hull plates damaged by the anchor in the approach to CARCO's berth. (Doc. No. 863 ¶ 30.)

[120] Frescati also asserts that it is entitled to damages in the amount of $2,100,000 for loss of hire to compensate it for its lost earnings while the Athos I was out of use and awaiting repairs. (*Id.* ¶ 32.)

[121] Finally, in the Natural Resource Damage Assessment category, Frescati seeks to recover $623,497.79 for costs it incurred during the early months of the oil spill cleanup from working with the United States Fish & Wildlife Service and other federal and state Trustees to make a preliminary evaluation of the natural resource damage the oil spill caused. (*Id.* ¶ 34.)

Lines Ltd. v. The President Harding, 288 F.2d 288, 291 (2d Cir. 1961)).

To be sure, "'reasonableness' here does not require 'infallibility or exactness of mathematical formula.'" *Nat'l Liab. Fire Ins. Co. v. R&R Marine, Inc.*, 756 F.3d 825, 833 (5th Cir. 2014) (citation omitted). Instead, "[r]easonable conduct 'is to be determined from all the facts and circumstances of each case, and must be judged in the light of one viewing the situation at the time the problem was presented." *Toyota Indus. Trucks U.S.A. v. Citizens Nat'l Bank of Evans City*, 611 F.2d 465, 471 (3d Cir. 1979) (citation omitted).

The Court "'will allow [Frescati] a wide latitude in determining how best to deal with the situation' because 'the necessity of decision-making was thrust upon [it] by the defendant, and judgments made at the time of crisis are subject to human error.'" *Nat'l Liab. Fire Ins. Co.*, 756 F.3d at 833 (citation omitted). Indeed, Frescati was not required to contract with the least expensive contractor for it to exercise reasonable and sensible business judgment. Under the circumstances, it is "the exercise of prudent business judgment and in no way unreasonable conduct for [a plaintiff] to have awarded the contract at somewhat increased cost to one whose performance had on previous occasions proved satisfactory." *In re Kellett Aircraft Corp.*, 186 F.2d 197, 199-200 (3d Cir. 1950).

Here, Frescati was faced in its cleanup efforts with unique and challenging circumstances, including the time of year that the incident occurred, the nature of the Delaware River, and the sheer magnitude of the spill itself. Frescati was compelled to make difficult business judgments with respect to equipment, personnel, organization, and process. For example, Mr. Benson testified that he had approximately 1,800

individuals working in response to this incident. He continued, "And you stand 1,800 people up within a five-day period, you are actually building a company and you have to manage that as a company. You have to use sound business principles when it comes to operations, planning, logistics, and more importantly the finance aspects of that." (Benson Tr., 193:17-22, Mar. 23, 2015.) In addition, Mr. LaFerriere stated, "So this spill, in particular, is the one I'm the most proud of. This spill had the best use of the incident command system I have seen in all the spills I have been involved in." (LaFerriere Tr., 81:7-10, Mar. 23, 2015.)

Frescati was not required to take on the risk of potential liability or added expenses by attempting to reduce its damages. *Tenn. Valley Sand & Gravel Co. v. M/V Delta*, 598 F.2d 930, 935 (5th Cir. 1979). Frescati faced the threat of early "federalization" should it not carry out its functions efficiently as required by OPA. Mr. Benson stated, "if we fail[ed] in any component . . . if we fail[ed] to support our contractors and the contractors fail[ed] to perform in the field with fear of not being paid, for example, the Coast Guard ha[d] full authority to step in and federalize that component of the spill." (Benson Tr., 144:10-15, Mar. 23, 2015.) Mr. Benson further explained, "if the Coast Guard was to intercede and federalize the spill, costs are going to rise dramatically. And . . . it could be punitive to the course of treble damages overall." (Benson Tr., 144:24-145:3, Mar. 23, 2015.) Frescati was not required to take action that created a risk that contractors would fail to perform, which could result in federalization of portions of the spill response. Moreover, when the response transitioned from the emergency phase into the project phase, Mr. Benson was able to look ahead beyond the next day, and was able to re-negotiate contracts and cut costs for the

remaining cleanup efforts. (Benson Tr., 214:24-215:6, 215:9-14, 216:4-11, 216:16-217:7, Mar. 23, 2015.) Considering all of these circumstances, Frescati's actions in the face of this crisis were reasonable, and it acted appropriately to mitigate its damages. *Aircraft Guar. Corp. v. Strato-Lift, Inc.*, 991 F. Supp. 735, 739 (E.D. Pa. 1998).

E. Prejudgment Interest

Frescati is entitled to an award of prejudgment interest at the United States one-year Treasury Rate, set in 28 U.S.C. § 1961(a), while the Government is entitled to prejudgment interest at the rate set in OPA, 33 U.S.C. § 2705(b)(4), to which the Government and CARCO stipulated. "The rule in admiralty is that prejudgment interest should be awarded unless there are exceptional circumstances that would make such an award inequitable." *In re Bankers Trust Co.*, 658 F.2d 103, 108 (3d Cir. 1981). Put another way, it is well settled in admiralty that prejudgment interest is awarded "subject to a limited exception for 'peculiar' or 'exceptional' circumstances." *City of Milwaukee v. Cement Div., Nat'l Gypsum Co.*, 515 U.S. 189, 195 (1995). Indeed, "[u]nder maritime law, the awarding of prejudgment interest is the rule rather than the exception, and, in practice, is well-nigh automatic." *United States Fire Ins. Co. v. Allied Towing Corp.*, 966 F.2d 820, 828 (4th Cir. 1992) (quoting *Reeled Tubing, Inc. v. M/V Chad G*, 794 F.2d 1026, 1028 (5th Cir. 1986)).

Prejudgment interest should be awarded unless exceptional circumstances exist that would make the award inequitable. Exceptional circumstances exist when the party requesting the interest "has (1) unreasonably delayed in prosecuting its claim, (2) made a bad faith estimate of its damages that precluded

settlement, or (3) not sustained any actual damages." *Del. River & Bay Auth. v. Kopacz*, 584 F.3d 622, 634 (3d Cir. 2009) (quoting *In re Bankers Trust Co.*, 658 F.2d at 108).

Moreover, prejudgment interest is considered part and parcel of the damages award, and "must be compensatory rather than punitive." *Kopacz*, 584 F.3d at 634. It compensates the plaintiff for the defendant's use of the funds from the date of the injury to the date of judgment. *Reeled Tubing, Inc. v. M/V Chad G*, 794 F.2d 1026, 1028 (5th Cir. 1986). Those "who finance their own cleanup lend to themselves" and "are entitled to compensation for the 'hire' of this capital." *Matter of Oil Spill by Amoco Cadiz*, 954 F.2d 1279, 1331 (7th Cir. 1992).

CARCO argues that Frescati is not entitled to prejudgment interest because it unreasonably delayed resolving this matter by requesting a stay of litigation from 2005 to 2008 while it pursued limitation and recovery from the Oil Spill Liability Trust Fund. (Doc. No. 856 at 31.) CARCO maintains that this Court should deny prejudgment interest when a plaintiff unreasonably delayed the pursuit of its claim or delayed resolving the case. *See Wilburn v. Maritrans G.P., Inc.*, 2000 WL 4144, at *2 (E.D. Pa. Jan. 3, 2000); *Jones v. Spentonbush-Red Star Co.*, 155 F.3d 587, 593-94 (2d Cir. 1998).

In *Wilburn*, the court found that the plaintiff had unreasonably delayed litigation by failing to take steps to advance its claim after the court had listed the matter for trial and for its conduct during discovery. 2000 WL 4144, at *2. As a result, the trial was unreasonably delayed. *Id.* Here, Frescati moved to stay two counts in its Amended Counterclaim, Counts VIII and X, and the Court (Fullam, J.) granted the

motion to stay these two counts in a Memorandum and Order dated January 5, 2006. (Doc. No. 84.) The stayed counts were in relation to Frescati's OPA Removal and Non-OPA Response cost damages categories, and not in relation to any other category of damage or liability. (*Id.*; Doc. No. 862 at 86.) The remainder of the litigation and discovery continued during the time the stay was in effect. During the stay, Frescati's costs in the OPA Removal and Non-OPA Response categories were presented to the NPFC for review and adjudication. (Doc. No. 862 at 86.) The stay was required because the NPFC will not review a reimbursement submission while the matter is pending in another forum. (*Id.*) Therefore, Frescati did not unreasonably delay the litigation and is entitled to prejudgment interest on its damages.

Frescati is entitled to interest on all damages it incurred as a result of the casualty. Frescati, however, is not seeking an award of prejudgment interest on the category of Unrepaired Hull Damage because it did not actually incur that expense. (Doc. No. 863 ¶ 243.) As such, Frescati is entitled to prejudgment interest on all damages categories except the category of Unrepaired Hull Damage.

No exceptional circumstances existed that would make the award of interest inequitable. Frescati has not "(1) unreasonably delayed in prosecuting its claim, (2) made a bad faith estimate of its damages that precluded settlement, or (3) not sustained any actual damages." *Kopacz*, 584 F.3d at 634 (quoting *In re Bankers Trust Co.*, 658 F.2d at 108). To be fully compensated, Frescati is entitled to interest on its costs and damages and the Government is entitled to interest on the amount to be reimbursed to the Fund.

i. Frescati Is Entitled to Prejudgment Interest at the United States One-Year Treasury Rate Set in 28 U.S.C. § 1961(a).

Frescati is entitled to prejudgment interest at the United States one-year Treasury Rate, specified in 28 U.S.C. § 1961(a).[122] "The rate of prejudgment interest to be applied in admiralty . . . is left to the sound discretion of the district court." *BP Exploration & Oil, Inc. v. Moran Mid-Atl. Corp.*, 147 F. Supp. 2d 333, 347 (D.N.J. 2001); *see also In Matter of Complaint of Tug Beverly Inc.*, 1994 WL 194891, at *1 (E.D. Pa. May 13, 1994). As explained in 28 U.S.C. § 1961(a): "Such interest shall be calculated from the date of the entry of the judgment, at a rate equal to the weekly average 1-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System, for the calendar week preceding[ ] the date of the judgment." Because the prejudgment interest rate specified in 28 U.S.C. § 1961(a) will fairly and adequately compensate Frescati for its losses, this rate will be applied here.

In the maritime property damage case *Pillsbury Co. v. Midland Enterprises, Inc.*, the court found that prejudgment interest awarded at the rate specified in 28 U.S.C. § 1961 was appropriate because the plaintiff introduced no evidence that it had actually borrowed and incurred high interest costs. 715 F. Supp. 738,

---

[122] In lieu of interest under 28 U.S.C. § 1961(a), CARCO has suggested that the Court award Frescati prejudgment interest at the OPA rate specified in 33 U.S.C. § 2705(b)(4) or the London Interbank Offered Rate ("LIBOR") plus 0.5%. (Doc. No. 858 at 13-15.) Neither the OPA rate, the LIBOR plus 0.5% rate, nor the United States Prime Rate would be appropriate rates to use here because no evidence was presented that the entity that paid for the cleanup borrowed funds at any of these rates.

770-71 (E.D. La. 1989), *aff'd and remanded*, 904 F.2d 317 (5th Cir. 1990). The court explained:

> The rate at which prejudgment interest is awarded is within the trial court's "broad discretion." The Fifth Circuit has upheld awards at the Louisiana legal rate, at the federal legal rate, as well as at, among other rates, higher rates roughly equal to the plaintiff's actual cost of borrowing. In cases where there was no evidence that the plaintiff had actually borrowed money and incurred higher interest costs, the Fifth Circuit has uniformly rejected plaintiffs' argument that they should have been awarded prejudgment [interest] at the generally higher cost-of-borrowing rate. . . .
>
> In this case, plaintiffs have introduced no evidence that they borrowed money, or were prevented from paying off loans, because of this action. . . .
>
> . . .
>
> In the exercise of its discretion, the Court determines that prejudgment interest should be awarded from the date of the casualty . . . at the current rate provided for in 28 U.S.C. § 1961 (viz., 8.85% compounded annually).

Id. (footnotes omitted). Here, as in the *Pillsbury Co.* case, this Court has been presented with no definite evidence that the entity that ultimately paid for the cleanup and associated expenses borrowed money to cover the costs. The record does not definitively reflect whether Frescati or a P&I Club paid for the cleanup and associated costs beyond the amount that the Government reimbursed Frescati from the Fund. Furthermore, "the measure of interest rates prescribed for

post-judgment interest in 28 U.S.C. § 1961(a) is also appropriate for fixing the rate for prejudgment interest." *Price v. Stevedoring Servs. of Am., Inc.*, 697 F.3d 820, 836 (9th Cir. 2012) (quoting *W. Pac. Fisheries, Inc. v. SS President Grant*, 730 F.2d 1280, 1289 (9th Cir. 1984)).

The interest rate specified in 28 U.S.C. § 1961(a) may be awarded as prejudgment interest in cases where the court does not find, "on substantial evidence, that the equities of a particular case require a different rate." *W. Pac. Fisheries, Inc.*, 730 F.2d at 1289; *see also Sun Ship, Inc. v. Matson Nav. Co.*, 785 F.2d 59, 63 (3d Cir. 1986) (stating that the prejudgment interest rate is within the discretion of the court, remanding for finding of prejudgment interest, and stating that on remand, the trial court may be guided by 28 U.S.C. § 1961). Here, the evidence has failed to show that the equities require a different prejudgment interest rate, because, as noted, neither Frescati nor CARCO offered firm evidence of who ultimately paid for the expenses and whether funds had to be borrowed to do so.

Accordingly, the interest rate specified in 28 U.S.C. § 1961(a) is a reasonable guidepost and a more appropriate rate than any other rate advocated by the parties. Based on the foregoing, Frescati is entitled to prejudgment interest, which will be awarded at the United States one-year Treasury Rate set in 28 U.S.C. § 1961(a).

ii. Prejudgment Interest on the Government's Subrogation Claim Is Awarded at the Stipulated Rate Set in 33 U.S.C. § 2705(b)(4).

The Government is entitled to prejudgment interest on its limited subrogation damages at the rate specified in OPA, 33 U.S.C. § 2705(b)(4), because this is the rate to which the Government and CARCO have stipulated. (Doc. No. 492.) As such, CARCO will owe the Government prejudgment interest on $43,994,578.66. Section 2705(b)(4) provides that interest "shall be calculated at the average of the highest rate for commercial and finance company paper of maturities of 180 days or less obtaining on each of the days included within the period for which interest must be paid to the claimant, as published in the Federal Reserve Bulletin." 33 U.S.C. § 2705(b)(4). Because the parties have stipulated to this interest rate, prejudgment interest will be awarded to the Government at this rate.

iii. Period of Accrual for Prejudgment Interest

The appropriate period of accrual for prejudgment interest is from April 1, 2005 to the date of judgment on the monies awarded by the Court. "Prejudgment interest begins to run from the date the damaged party loses the use of its funds, *e.g.*, from the time expenditures were actually made." *BP Exploration & Oil, Inc.*, 147 F. Supp. 2d at 346. Frescati proposed April 1, 2005 as the appropriate start date for the computation of prejudgment interest, and CARCO's expert, Dr. Boudreaux, accepted this date as the approximate start date. (Boudreaux Tr., 26:21, Apr. 9, 2015.) This period of accrual also includes three principal adjustments: (1) from August 23, 2006 on $77,181,859.54,

when the Fund reimbursed Frescati; (2) from June 17, 2008 on $10,807,297.77, when the Fund reimbursed Frescati a second time; and (3) from September 6, 2005 on $156,489, when Frescati finalized the post-incident sale of equipment. (Boudreaux Tr., 55:9-19, Apr. 9, 2015; Ex. D-2400.)

CARCO argues that Frescati is not entitled to prejudgment interest because it delayed the litigation three years by moving to stay the case in 2005 to assert a claim for limitation and recovery from the NPFC. (Doc. No. 858 ¶ 33.) The Court has already found this argument to be without merit. Thus, with the exceptions noted, the appropriate period of accrual for prejudgment interest is from April 1, 2005 to the date of this judgment.

iv. Annual Compounding of Interest

Annual compounding is a reasonable and appropriate computation factor for Frescati's prejudgment interest. 28 U.S.C. § 1961(b) provides, "Interest shall be computed daily to the date of payment . . . and shall be compounded annually." 28 U.S.C. § 1961(b). *See also Pillsbury*, 715 F. Supp. at 771 (compounding prejudgment interest at the rate provided for in 28 U.S.C. § 1961 annually); *Adriatic Ship Supply Co. v. M/V Shaula*, 632 F. Supp. 1573, 1576 n.4 (E.D. Pa. 1986) (awarding prejudgment interest at the 28 U.S.C. § 1961 rate and compounding interest annually). Accordingly, annual compounding will be used to determine Frescati's prejudgment interest.[123]

[123] Since the Government and CARCO have agreed that prejudgment interest on the subrogation claim will be calculated based on the rate specified in 33 U.S.C. § 2705(b)(4), there is no need for the Court to decide if the interest should be compounded.

VI. CONCLUSION

This litigation involves an attempt by three parties to apportion monetary liability for the Athos I casualty. The first party includes the owner of the Athos I, Frescati Shipping Company, Ltd., and its vessel manager, Tsakos Shipping & Trading, S.A. ("Frescati"). Frescati alleges that it incurred more than $143 million in expenses from oil spill cleanup efforts and in damages. The second party is the United States Government, which reimbursed Frescati $87,989,157.31 pursuant to the provisions of OPA. Both Frescati and the Government seek reimbursement for their costs from the third party to this litigation—entities known as CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (together referred to as "CARCO"). CARCO contracted to have the Athos I deliver crude oil to its refinery in Paulsboro, New Jersey.

Frescati brought a contract action against CARCO for breaching the safe berth warranty included in the contract that CARCO made with Star Tankers, Inc., the intermediary that chartered to CARCO the Athos I for delivery of oil to its Paulsboro berth. Frescati is covered by the safe berth warranty as a third-party beneficiary. The safe berth warranty was an express assurance that the Athos I would reach the Paulsboro berth safely, provided that it maintained a draft of 37 feet or less. The record demonstrates that the Athos I was drawing less than 37 feet at the time of the casualty. This Court finds that CARCO breached the safe berth warranty. This Court also finds that Frescati did not negate the safe berth warranty through poor navigation or seamanship. As a result, CARCO is liable to Frescati on the breach of contract claim in the amount of $55,497,375.95 for cleanup

costs and damages, plus prejudgment interest. Prejudgment interest will be calculated at the rate set in 28 U.S.C. § 1961(a) and compounded annually.

The Government, as a statutory subrogee, has entered into a partial settlement agreement with CARCO, limiting its claim for reimbursement from CARCO to Frescati's contractual claim under the safe berth warranty. The Government does not have a negligence claim against CARCO. As a statutory subrogee, the Government stands in the shoes of Frescati on the breach of contract claim. The evidence warrants, however, an equitable finding that CARCO is not fully liable to the Government on the $87,989,157.31 subrogation claim. The Government may only recover on this claim 50% of the $87,989,157.31, or $43,994,578.66, plus prejudgment interest. Prejudgment interest will be awarded at the rate set in 33 U.S.C. § 2705(b)(4).

In addition to the breach of contract claim, Frescati brought a negligence claim against CARCO. The Third Circuit has held that CARCO had a duty to exercise reasonable diligence in maintaining a safe approach to its Paulsboro berth for the Athos I. To fulfill this duty, the standard of care required CARCO under the facts of this case to periodically scan the approach to its dock to search for hazards to navigation. In addition, if CARCO found a hazard, CARCO was required to either remove it, mark it, or warn incoming ships of its presence. CARCO breached this duty by failing to conduct side-scan sonar surveys of the approach. This failure to search for underwater hazards within the approach proximately caused the casualty. Had CARCO searched for underwater obstructions within the approach, the anchor would have been discovered and the oil spill would not have occurred. Therefore, CARCO was negligent and is liable to Frescati on this

claim in the amount of $55,497,375.95 for cleanup costs and damages, plus prejudgment interest compounded annually.

CARCO contends that Frescati's conduct contributed to the casualty because the Athos I crew negligently navigated the vessel and the vessel was unseaworthy. No credible evidence shows that any poor navigation or seamanship proximately caused or contributed to the casualty, or that the Athos I was unseaworthy. Moreover, the Pennsylvania Rule does not limit Frescati's recovery.

The amount of $55,497,375.95 is being awarded to Frescati on both the breach of warranty and negligence claims. Frescati is being awarded the $55,497,375.95 independently on each count, but is entitled to a total award only in this amount.

Over the past twelve years, this litigation has generated about seventy (70) days of testimony plus numerous days of other proceedings and appeals; the devoted commitment of an army of lawyers and experts from the Government and the private sector; and the study of vast amounts of information to uncover the cause of, and culpability for, the allision. At some point, the Athos I was scrapped. Its only remnant, a cut-out section of the hull displaying two unique holes with jagged edges, remains in a shed in Baltimore, Maryland, near a rusted anchor with a fluke that has an evenly curled bent tip. The story of the final voyage of the Athos I and the reasons why it came to rest prematurely may be in the minds of the maritime community for years to come. But in this Court, for now, its legal journey will conclude here.

Appropriate Orders follow.

Exhibit A

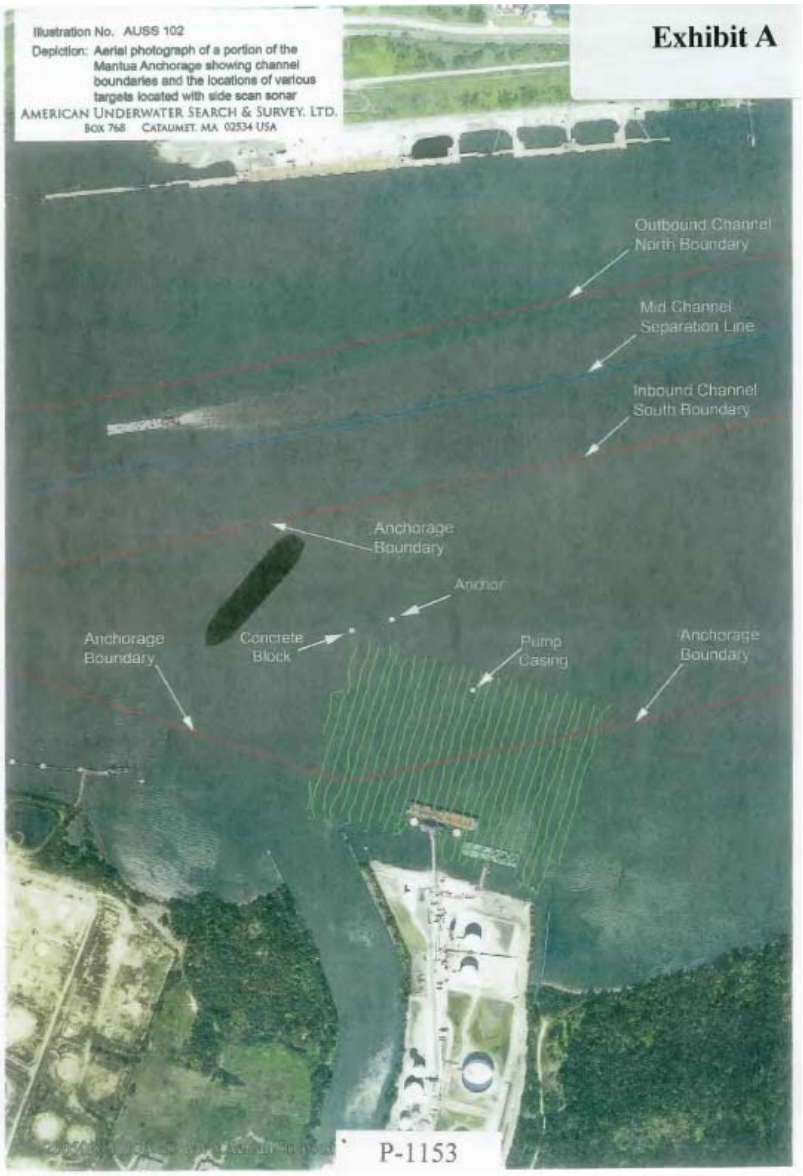


Illustration No. AUSS 102
Depiction: Aerial photograph of a portion of the Mantua Anchorage showing channel boundaries and the locations of various targets located with side scan sonar
AMERICAN UNDERWATER SEARCH & SURVEY, LTD.
BOX 768 CATAUMET, MA 02534 USA
Exhibit A
Outbound Channel North Boundary
Mid Channel Separation Line
Inbound Channel South Boundary
Anchorage Boundary
Anchor
Anchorage Boundary
Concrete Block
Pump Casing
Anchorage Boundary
P-1153

Exhibit B

Exhibit B-1

Exhibit B-2

Exhibit B-3

AUSS 108

Exhibit B-4

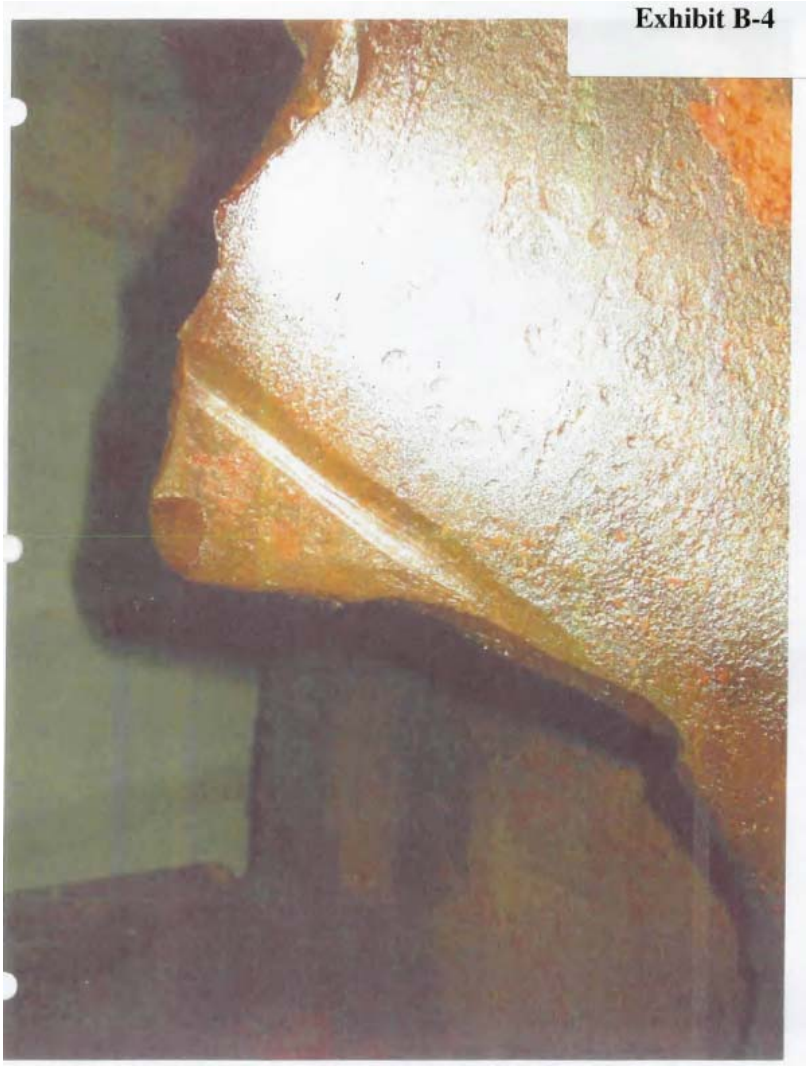


Exhibit C

Exhibit C-1

Exhibit C-2

Exhibit D

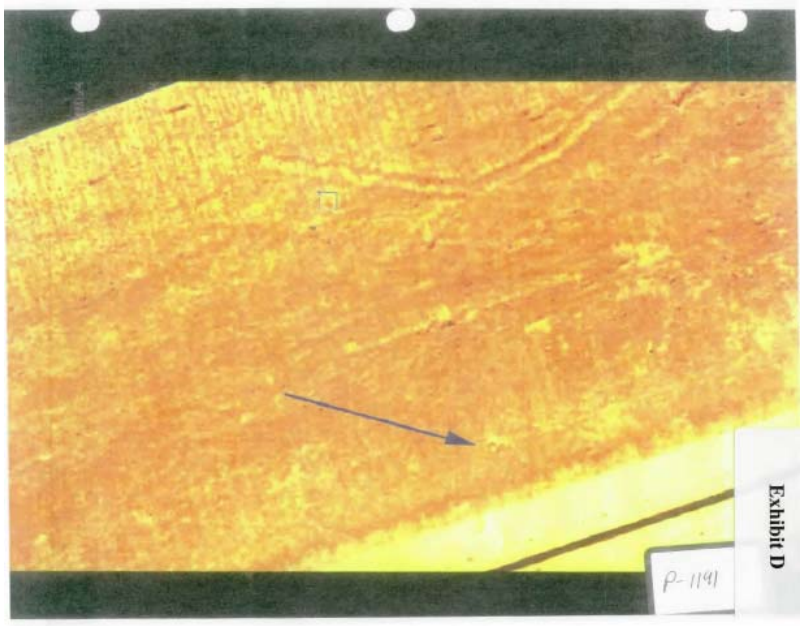
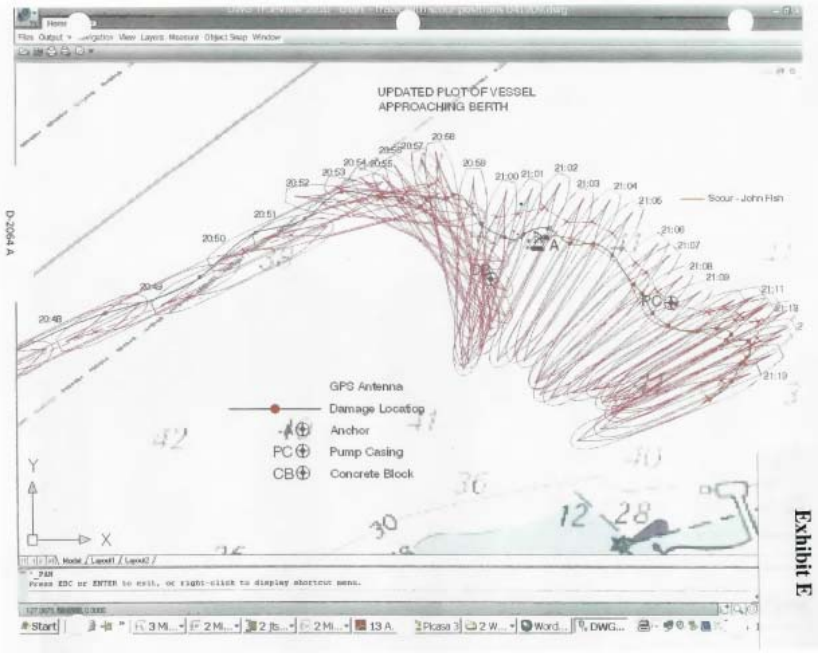


Exhibit E


UPDATED PLOT OF VESSEL
APPROACHING BERTH
Scour - John Fish
GPS Antenna
Damage Location
Anchor
PC Pump Casing
CB Concrete Block
Y
X
Exhibit E

APPENDIX C

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

No. 16-3470
No. 16-3552
No. 16-3867
No. 16-3868

IN RE: PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS OWNER OF THE M/T ATHOS I AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE ATHOS I FOR EXONERATION FROM OR LIMITATION OF LIABILITY
(E.D. Pa. No. 2-05-cv-00305)

UNITED STATES OF AMERICA

v.

CITGO ASPHALT REFINING COMPANY;
CITGO PETROLEUM CORPORATION;
CITGO EAST COAST CORPORATION
(E.D. Pa. No. 2-08-cv-02898)

CITGO ASPHALT REFINING COMPANY;
CITGO PETROLEUM CORPORATION;
CITGO EAST COAST OIL CORPORATION,
Appellants

SUR PETITION FOR REHEARING

Present: SMITH, *Chief Judge*, McKEE, AMBRO, CHAGARES, JORDAN, HARDIMAN, GREENAWAY,

JR., VANASKIE, SHWARTZ, KRAUSE, RESTREPO, and BIBAS, *Circuit Judges* and BRANN, *District Judge*[*]

The petition for rehearing filed by appellants in the above-entitled case having been submitted to the judges who participated in the decision of this Court and to all the other available circuit judges of the circuit in regular active service, and no judge who concurred in the decision having asked for rehearing, and a majority of the judges of the circuit in regular service not having voted for rehearing, the petition for rehearing by the panel and the Court en banc, is denied.

BY THE COURT,

/s/ D. Brooks Smith
Chief Circuit Judge

Dated: May 30, 2018

CJG/cc: Timothy J. Bergere, Esq.
Jack A. Greenbaum, Esq.
Alfred J. Kuffler, Esq.
John J. Levy, Esq.
Eugene J. O'Connor, Esq.
Matthew M. Collette, Esq.
Anne Murphy, Esq.
Benjamin Beaton, Esq.
Jacqueline G. Cooper, Esq.
Carter G. Phillips, Esq.
Richard E. Young, Esq.
George R. Zacharkow, Esq.

[*] The vote of the Honorable Matthew W. Brann, District Judge for the United States District Court for the Middle District of Pennsylvania, who sat by designation, is limited to panel rehearing.

APPENDIX D

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

Nos. 11–2576, 11–2577

IN RE PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS OWNER OF THE M/T ATHOS I AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE ATHOS I FOR EXONERATION FROM OR LIMITATION OF LIABILITY

FRESCATI SHIPPING COMPANY, LTD. AND TSAKOS SHIPPING AND TRADING, S.A.,
Appellants.

UNITED STATES OF AMERICA,
Appellant

v.

CITGO ASPHALT REFINING COMPANY; CITGO PETROLEUM CORPORATION; CITGO EAST COAST OIL CORPORATION.

Appeal from the United States District Court
for the Eastern District of Pennsylvania

D.C. Civil Action Nos. 2-05-cv-00305/2-08-cv-02898

Trial District Judge: Honorable John P. Fullam
District Judge: Honorable Joel H. Slomsky*

---

* Judge Slomsky was assigned to this matter following the retirement of Judge Fullam, who presided at trial and ruled on the merits.

Argued Sept. 20, 2012.
Opinion Filed May 16, 2013.
As Amended June 6, 2013.
As Amended June 28, 2013.
As Amended on Denial of Rehearing and Rehearing
En Banc July 12, 2013.

Before: AMBRO, GREENAWAY, Jr., and O'MALLEY,[**] Circuit Judges.

OPINION OF THE COURT

AMBRO, Circuit Judge.

[**] Honorable Kathleen M. O'Malley, United States Court of Appeals for the Federal Circuit, sitting by designation.

Table of Contents

As the oil tanker *M/T Athos I* neared Paulsboro, New Jersey, after a journey from Venezuela, an abandoned ship anchor lay hidden on the bottom of the Delaware River squarely within the *Athos I's* path and only 900 feet away from its berth. Although dozens of ships had docked since the anchor was deposited in the River, none had reported encountering it. The *Athos I* struck the anchor, which punctured the ship's hull and caused approximately 263,000 gallons of crude oil to spill into the River. The cleanup following the casualty was successful, but expensive.

This appeal is the result of three interested parties attempting to apportion the monetary liability. The first party (actually two entities consolidated as one for our purposes) includes the *Athos I's* owner, Frescati Shipping Company, Ltd., and its manager, Tsakos Shipping & Trading, S.A. (jointly and severally, "Frescati"). Although Frescati states that the spill caused it to pay out $180 million in cleanup costs and ship damages, it was reimbursed for nearly $88 million of that amount by the United States (the "Government")—the second interested party—pursuant to the Oil Pollution Act of 1990, 33 U.S.C. § 2701 *et seq*. In order to recoup the unreimbursed losses, Frescati made claims in contract and tort against the third interested party—a set of affiliates known as CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (jointly and severally, "CARCO")—which requested the oil shipped on the *Athos I* and owned the marine terminal where it was to dock to unload its oil. Specifically, Frescati brought a contract claim for CARCO's alleged breach of the safe port/safe berth warranty (jointly and severally, "safe berth warranty") it made to an intermediary—Star Tankers, Inc.—responsible for chartering the *Athos I* to CARCO's

port, and alleged negligence and negligent misrepresentation against CARCO as the owner of the wharf the *Athos I* was nearing when it was holed. The Government, as a statutory subrogee that stepped into Frescati's position for the $88 million it reimbursed to Frescati under the Oil Pollution Act, has limited its claim for reimbursement from CARCO to Frescati's contractual claim pursuant to a limited settlement agreement.

Following a 41-day bench trial, the District Court for the Eastern District of Pennsylvania held that CARCO was not liable for the accident under any of these theories. The Court, however, made no separate findings of fact and conclusions of law as required by Federal Rule of Civil Procedure 52(a)(1). That calls for a remand to set out these mandated matters. However, for the sake of efficiency, we discuss—and, to the extent necessary, make holdings on—the legal issues appealed.

In regard to the contractual safe berth warranty, the Court determined that Frescati (and the Government as a subrogee) could not recover on their contractual claims. First, Frescati was not a party to the agreement that contained the warranty between CARCO and Star Tankers, and was not an intended beneficiary of that agreement. Furthermore, even if Frescati could claim the protection of the warranty, it was only a promise by CARCO to exercise due diligence and not an unconditional guarantee; moreover, sufficient diligence existed here. In any event, the warranty was excused because CARCO specified the port ahead of the *Athos I's* arrival, placing the burden on the *Athos I's* captain to accept it as safe or reject it under what is called the "named port exception."

For reasons elaborated below, we disagree with all three of these rulings. Instead, we hold that the *Athos I*—and by extension, its owner, Frescati—was an implied beneficiary of CARCO's safe berth warranty. We conclude as well that the safe berth warranty is an express assurance of safety, and that the named port exception to that warranty does not apply to hazards that are unknown to the parties and not reasonably foreseeable. We cannot be sure, however, that this warranty was actually breached, as the District Court made no finding as to the *Athos I's* actual draft nor the amount of clearance actually provided.

If on remand the District Court rules in favor of Frescati on its contractual warranty claim, its negligence claim becomes unnecessary. If this issue is reached, we do not agree with the District Court's conclusion that CARCO cannot be liable in negligence because the anchor lay outside the approach to CARCO's terminal—the area in which CARCO had a duty to exercise reasonable care in proving a safe approach. As such, the District Court would need to resolve the appropriate standard of care required, whether CARCO breached that standard, and if so, whether any such breach caused the accident. Conversely, we find no error with the Court's holding that CARCO's alleged misrepresentation as to the depth of its berth was geographically (and hence factually) irrelevant to the ultimate accident. In addition, we conclude that the Government has waived reliance on a partial settlement agreement with CARCO that, the Government contends, precludes CARCO from making certain equitable defenses to the Government's subrogation claims. In this context, we affirm in part, and vacate and remand in part for additional factfinding on the contractual (and possibly negligence) claims.

I. Factual and Procedural Background

A. The Tanker and Its Charters

At the heart of this dispute is the *Athos I*, a single-hulled oil tanker measuring 748 feet long and more than 105 feet wide. It was owned by Frescati at all relevant times. At the time of the accident, however, the *Athos I* had been chartered into a tanker pool assembled by Star Tankers, who is not a party to this consolidated action. In order to transport a load of heavy crude oil from Venezuela to its asphalt refinery in Paulsboro, New Jersey, CARCO sub-chartered the *Athos I* from the Star Tankers pool.

In admiralty, these contracts for service are known as "charter parties."[1] In specific regard to Star Tankers, the *Athos I* was enlisted into the tanker pool in October of 2001 pursuant to a "*time* charter party." "Under a time charter, the owner [Frescati] remains responsible for the navigation and operation of the vessel and the charterer [Star Tankers] assumes responsibility for arranging for the employment of the vessel, providing fuel and paying for certain cargo-related expenses." Terence Coghlin *et al., Time Charters* ¶ 1.59 (6th ed.2008). The time charter party gave Star Tankers, an intermediary or "middleman," the right to sub-charter the *Athos I* although Frescati

---

[1] The term "charter party" may be confusing in that it does not refer to an entity, but a document. This is due to its historical genesis, deriving from the phrase "*charta partita, i.e.*, a deed of writing divided." *Black's Law Dictionary* 268 (9th ed.2009) (quoting Frank L. Maraist, *Admiralty in a Nutshell* 44-45 (3d ed.1996)). The *charta partita* was literally a divided document, the owner and the charterer each retaining one half of the agreement. *Id*.

remained responsible for keeping the vessel staffed and serviceable.

In contrast, CARCO's employment of the *Athos I* for the specific voyage was pursuant to a "*voyage* charter party" with Star Tankers. Unlike a time charter party in which a "vessel's employment is put under the orders of . . . charterers" for a period of time, under a voyage charter party the ship is hired "to perform one or more designated voyages in return for the payment of freight."[2] Julian Cooke *et al*., *Voyage Charters* ¶ 1.1 (3d ed.2007). CARCO's particular voyage charter party, based on a standard industry ASBATANKVOY form, contained what are customarily known as "safe port" and "safe berth" warranties (already defined, for convenience, as a "safe berth warranty"). It provided that

> [t]he vessel . . . shall, with all convenient dispatch, proceed as ordered to Loading Port(s) named . . ., or so near thereunto as she may safely get (always afloat), . . . and being so loaded shall forthwith proceed, as ordered on signing Bills of Lading, direct to the Discharging Port(s), or so near thereunto as she may safely get (always afloat), and deliver said cargo.

---

[2] It has been observed that

> [t]he fundamental difference between voyage and time charters is how the freight or "charter hire" is calculated. A voyage charterparty specifies the amount due for carrying a specified cargo on a specified voyage (or series of voyages), regardless of how long a particular voyage takes. A time charterparty specifies the amount due for each day that the vessel is "on hire," regardless of how many voyages are completed.

David W. Robertson *et al*., *Admiralty and Maritime Law in the United States* 335 (2d ed.2008).

J.A. at 1222 (Tanker Voyage Charter Party, Part II, ¶ 1). It further directed that "[t]he vessel shall load and discharge at any safe place or wharf, . . . which shall be designated and procured by the Charterer [CARCO], provided the Vessel can proceed thereto, lie at, and depart therefrom always safely afloat. . . ." *Id*. at 1222 (Tanker Voyage Charter Party, Part II, ¶ 9). We note that, in the time charter party between Frescati and Star Tankers, the latter contracted to provide a similar safe berth warranty, but this warranty was qualified whereby Star Tankers obligated itself to exercise "due diligence to ensure that the vessel is only employed between and at safe places. . . ." *Id*. at 1157 (Time Charter Party ¶ 4). Following the accident, Frescati began arbitration with Star Tankers regarding its claims for damage of the *Athos I*, but that proceeding has been stayed pending the outcome of this case. Oral Arg. Tr. 4:8-15, Sept. 20, 2012.

In preparation for the arrival in Paulsboro of the *Athos I*, its master[3] was provided with a copy of CARCO's Port Manual. This Manual indicated that the allowable maximum draft at the Paulsboro facility was 38 feet, but that this "may change from time to time and should be verified prior to the vessel's arrival." J.A. at 1095 (CITGO Terminal Regulations for Vessels ¶ 2). On November 22, 2004, four days before the *Athos I* arrived, CARCO reduced this maximum draft to 36 feet. The *Athos I* was not informed of this modification.

---

[3] A ship's master is its commander and captain. *Black's Law Dictionary*, *supra*, at 1065.

B. The Accident

On November 26, 2004, the *Athos I* was nearing its ultimate destination, CARCO's asphalt refinery in Paulsboro, New Jersey. When the *Athos I* reached the mouth of the Delaware River, only 80 miles remained of its 1,900-mile journey. Although Captain Iosif Markoutsis was the ship's master, the seven-hour upriver transit was aided by Delaware River Pilot Captain Howard Teal. At approximately 8:30 p.m., while the *Athos I* was still navigating up the River channel, Docking Pilot Captain Joseph Bethel boarded the vessel (Captain Bethel was employed by non-party Moran Towing of Pennsylvania). The Docking Pilot relieved the River Pilot at about 8:40 p.m.

CARCO's Paulsboro facility sits on a jetty on the New Jersey side of the Delaware River. Federal Anchorage Number Nine ("the Anchorage" or "Anchorage Number Nine") separates the River channel from CARCO's port waters. As pictured in Appendix A to this opinion, the Anchorage's border runs diagonally to CARCO's waterfront, ranging between 130 and 670 feet from the face of its ship dock. Across the Anchorage, the River Channel begins less than 2,000 feet from CARCO's berth, a little more than two-and-a-half lengths of the *Athos I*. Customarily, a tanker of the *Athos I's* size would come up the River, make a starboard (right) 180° turn into the Anchorage, and would then be pushed sideways by tugs (i.e., parallel parked) into CARCO's pier. The *Athos I* was following this procedure when, at 9:02 p.m., it suddenly listed to the port (left) side, and oil became visible in the water. It was later determined that an abandoned anchor had punched two holes in the *Athos I's* hull, causing (as already noted) roughly 263,000 gallons of crude oil to spill into the River. At the time

of the allision,[4] the *Athos I* was only 900 feet from CARCO's berth, approximately halfway through the Anchorage. The tide was relatively low at the time of the accident after having reached its lowest point only 50 minutes prior. J.A. at 2102.

The anchor was eventually exhumed. Inspection revealed that it weighed roughly nine tons and measured 6'8" long, 7'3" wide, and 4'6" high. J.A. at 2192 (United States Coast Guard Marine Casualty Investigation Report). The Coast Guard further reported that the anchor was ultimately found lying prone with its blade reaching 54 inches above the floor of the River. *Id*. at 2196. Although the District Court made no finding of fact as to the exact position of the anchor at the time of the allision, it found persuasive the testimony of oceanographer and ocean engineer Dr. Peter Traykovski, who opined that the anchor was lying horizontal at the time of the accident with a height of only 41 inches above the bottom of the River. Traykovski Test., 24:25-25:13, Nov. 4, 2010. The Court also did not make any finding as to the depth of the Anchorage where the anchor lay, though the record before us seems to indicate that the depth was between 40.3 and 41.45 feet deep at low tide. *Id*. at 49:12-25; J.A. at 2196.

The District Court also did not make any finding as to the draft of the *Athos I*—that is, the distance between the lowest point of the ship and the waterline—but assumed, for purposes of analysis, that it was drawing 36'7" as represented by Frescati at the time of the accident. The Court also failed to resolve

---

[4] An allision is "[t]he contact of a vessel with a stationary object such as an anchored vessel or a pier." *Black's Law Dictionary*, *supra*, at 88.

the anchor's depth or position, although it noted that there was "persuasive evidence" that the anchor was lying down at the time of the accident. *In re Frescati Shipping Co., Ltd*., Nos. 05-CV-00305-JF, 08-cv-02898-JF, 2011 WL 1436878, at *7 (E.D.Pa. Apr. 12, 2011). The parties, however, stipulated that the anchor had been in the same approximate location for at least three years because it was detectable from a sonar scan performed by the University of Delaware in 2001 as part of an independent geophysical study.[5] The owner of the anchor has never been determined, but the Court speculated that the anchor likely was used for dredging operations at the time it was lost.

C. The Cost of the Accident

Frescati claims that the accident cost it, as the "responsible party" under the Oil Pollution Act, approximately $180 million in clean-up costs and damages to the ship. (The Act was passed in the wake of the Exxon Valdez accident in 1989, and was designed to facilitate oil spill cleanups by requiring "responsible parties" to pay initially for removal costs and damages. *See* 33 U.S.C. § 2702(a).) Because the Act sets liability limits for cooperative responsible parties, *see id*. at § 2704(a), an incentive exists for responsible parties to respond quickly and competently in order to limit the extent of their financial exposure. *See Unocal Corp. v. United States*, 222 F.3d 528, 535 (9th Cir.2000) (""The purpose of [the

[5] The stipulation suggests that the anchor was not mentioned in the report ultimately issued by the University of Delaware professors. *See* J.A. at 1310-12. Instead, it seems that it was not until after this litigation began that the parties obtained the 2001 side scan sonar data and agreed that it revealed the anchor's presence.

Oil Pollution Act] . . . was to encourage rapid private party responses.'" (quoting *In re Metlife Capital Corp*., 132 F.3d 818, 822 (1st Cir.1997))). Responsible parties in compliance with the Act may file a claim with the Oil Spill Liability Trust Fund, controlled by the United States Government, for reimbursement of costs beyond the liability limit. 33 U.S.C. § 2708(a)(2). Specifically, Frescati was able to limit its liability for cleanup to $45,474,000, thus allowing it to recover cleanup costs exceeding that amount from the Fund.[6] It was ultimately reimbursed for approximately $88,000,000 of its cleanup costs, and the Fund became subrogated as to that amount under 33 U.S.C. §§ 2712(f) and 2715(a).

D. Control of the Waters

The casualty here occurred squarely within Anchorage Number Nine. As the term implies, an anchorage ground is "a place where vessels anchor or a place suitable for anchoring." *Webster's Third New Int'l Dictionary* 79 (1971). Section 7 of the Rivers and Harbors Act of 1915 authorizes the establishment of "anchorage grounds for vessels in all harbors, rivers, bays, and other navigable waters of the United States whenever it is manifest . . . that the maritime or commercial interests of the United States require such anchorage grounds for safe navigation. . . ." 33 U.S.C. § 471. By 1930, a "lack of adequate anchorage room" was creating a hazard on the Delaware River between

[6] In February 2007, Frescati applied to have its liability exonerated pursuant to 33 U.S.C. § 2703(a)(3). That subsection directs that a responsible party is not liable for the acts or omissions of a third party. In this case, that third party would have been the unknown anchor-dropper. It is unclear why Frescati withdrew this claim in 2008.

navigating vessels and those "awaiting accommodation at the wharves, or awaiting cargo or orders." H. Doc. No. 71-304, 24 (1930). Anchorage Number Nine, also known as the Mantua Creek Anchorage, was established in 1930. Pub.L. No. 71-520, 46 Stat. 918, 921 (1930). Today it runs for approximately 2.2 miles along the Delaware River channel (*see* Appendix A) and provides a place for ships to anchor so long as they do not "interfere unreasonably with the passage of other vessels to and from Mantua Creek." 33 C.F.R. § 110.157(a)(10).

Anchorage Number Nine, though only a few hundred feet from CARCO's pier, is neither controlled nor maintained by CARCO. Instead, the federal Government's Army Corps of Engineers (the "Corps") conducts hydrographic surveys and dredges as necessary in an attempt to maintain the Anchorage's depth at 40 feet. The Corps also regulates any construction or excavation within the navigable waters, including the issuance of dredging permits, 33 U.S.C. § 403, and its regulatory jurisdiction "extend[s] laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark," 33 C.F.R. § 329.11. The National Oceanic and Atmospheric Administration conducts surveys on occasion for various federal projects. No Government entity, however, is responsible for preemptively searching all federal waters for obstructions, and the District Court found that the Government does not actually survey the Anchorage for hazards. If, however, the Government is alerted to the presence of a threat, the Corps will remove the obstruction if it is a hazard to navigation and, if not removable, the Coast Guard will chart it. Ultimately, the "[p]rimary responsibility for removal of wrecks or other obstructions lies with the

[obstruction's] owner, lessee, or operator." 33 C.F.R. § 245.10(b).

CARCO maintains a self-described "area of responsibility" directly abutting its Paulsboro terminal, "a roughly triangular-shaped area . . . comprising the waters of the berth footprint and the immediate access area next to it where vessels enter and exit the footprint." CARCO's Br. at 19. This area, also set out in Appendix A to this opinion, runs essentially the length of CARCO's facility and extends offshore to the border of the Anchorage. It is based on a permit to dredge for maintenance purposes that was issued by the Corps to CARCO's predecessor in 1991. The scope of such a permit is derived from the initial request; put another way, it is self-defined subject to approval by the Corps. This area of responsibility is not large enough to rotate the 748 foot-long *Athos I*.

In maintaining its area of responsibility, CARCO retained a consulting engineering firm, S.T. Hudson Engineers, Inc., to perform hydrographic surveys. While CARCO had inspected that area for depth, it never specifically searched for debris or other hazards. Hudson interpolated the area's depth from a grid of pinpointed, single-beam sonar depth soundings at 50-foot intervals. This particular procedure is poor at detecting sunken objects because it is unlikely that any given hazard would fall within the exact spot measured, and if it did, it would not necessarily indicate that there was an object but only the depth of that object as indistinguishable from the bottom of the waterway. Long Test., 78:8-79:5, Nov. 17, 2010; Fish Test, 59:11-18, Sept. 29, 2010.

CARCO's Port Captain William Rankine estimated that approximately 250 ships with a draft of 36'6" or greater either entered or departed CARCO's port

between 1997 and 2005. Rankine Test., 22:25-23:15, Nov. 22, 2010. In specific regard to arriving vessels, from the time the anchor was spotted by the University of Delaware in August 2001 until the *Athos I* casualty, the record reflects that 61 ships with a draft of 36'6" or greater arrived at CARCO's facility. J.A. at 1788-94. The record does not reflect at what time these ships docked, and high tide adds approximately six feet of depth to the River. Moreover, Frescati points out that—unlike the *Athos I*—21 of these ships would have been required to dock within three hours prior to high-water due to their excessive drafts.[7] *Id*. at 1622-24.

E. The District Court Proceedings

In January 2005, Frescati filed in the District Court a Complaint for Exoneration From or Limitation of Liability pursuant to the Shipowner's Limitation of Liability Act, 46 U.S.C. § 30501 *et seq*. (formerly 46 App. U.S.C. § 181 *et seq*.). In that Complaint, Frescati sought a declaration that it was not liable for any losses stemming from the accident or, in the alternative, a limitation of liability to the value of the *Athos I* and its pending freight. CARCO was among the parties who asserted claims in that action, seeking recovery against Frescati for its lost oil in an amount

[7] The Docking Pilot Association ("DPA") Guidelines provide directives for the appropriate docking times for vessels of different sizes. The DPA Guidelines were developed after discussion with CARCO's previous Port Captain and were based in part on CARCO's desire to maximize the number of vessels that could dock at its berth. J.A. at 1104; Quillen Dep. 11:12-20, Sept. 2, 2010.

in excess of $259,217. Frescati then filed a counterclaim against CARCO for all costs incurred beyond those reimbursed by the Fund.

In June 2008, the Government filed a separate suit against CARCO seeking compensation on its subrogated right, pursuant to 33 U.S.C. §§ 2712(f) and 2715(a), to the approximately $88 million disbursed by the Fund. In a partial settlement agreement, the Government waived its negligence claims against CARCO in return for the latter's agreement not to pursue negligence claims against the United States. The Government, believing that CARCO was advancing against it negligence theories in violation of the settlement agreement, moved for partial summary judgment against CARCO's counterclaim for equitable recoupment. That motion was denied.

As noted, these two actions were consolidated, and they were tried over 41 days before Judge Fullam. After trial, the Court issued an 18-page opinion holding that CARCO could not be held responsible under contract or tort for any of the losses stemming from the accident. *See In re Frescati*, 2011 WL 1436878.

On the contractual safe berth warranty, the Court determined that Frescati had no standing for relief, as it was not a third-party beneficiary to the voyage charter party between CARCO and Star Tankers, and that, in any event, CARCO did not breach those warranties because they are not unconditional guarantees but instead "'impose[ ] upon the charterer a duty of due diligence to select a safe berth,'" a duty satisfied here. *Id*. at *6 (quoting *Orduna S.A. v. Zen-Noh Grain Corp*., 913 F.2d 1149, 1157 (5th Cir.1990)). The Court further ruled that, even if a stricter warranty applied, the naming of the port in advance

precluded recovery under the named port exception, which, as a general matter, protects a charterer when the port is named ahead of arrival and the master proceeds there without protest.

The Court also held that CARCO was not negligent in failing to search for or detect the abandoned anchor that lay within the Anchorage. As the Court deemed it outside the approach to CARCO's berth, detection and notification to others of its presence thus fell beyond CARCO's obligation to provide a safe entry to that berth. The Court also held that there was no negligent misrepresentation in CARCO's failure to alert the *Athos I* that—only four days prior to its arrival—the allowable maximum draft at CARCO's facility had been reduced from 38 feet to 36 feet. It reasoned that this was an internal determination pertaining to the area at the berth and outside the Anchorage, and therefore was "factually irrelevant to the casualty." *Id*. at *5.

In sum, the District Court concluded that the anchor-dropper rather than any of the named parties was at fault, and rejected all of Frescati's and the Government's arguments as to CARCO's liability.

II. Jurisdiction and Standard of Review

The District Court had admiralty jurisdiction pursuant to 28 U.S.C. § 1333(1). We have jurisdiction over this appeal under 28 U.S.C. § 1291.

Findings of fact made during a bench trial are reviewed for clear error, and will stand unless "'completely devoid of minimum evidentiary support displaying some hue of credibility, or . . . bear no rational relationship to the supportive evidentiary data.'" *In re Nautilus Motor Tanker Co*., 85 F.3d 105, 115 (3d Cir.1996) (alteration in original) (quoting *Haines v.*

Liggett Grp. Inc., 975 F.2d 81, 92 (3d Cir.1992)). Following a bench trial, we review *de novo* a district court's conclusions of law. *McCutcheon v. Am.'s Servicing Co.*, 560 F.3d 143, 147 (3d Cir.2009) (citation omitted). "[C]onstruction of an unambiguous contract is a matter of law and subject to plenary review." *Colliers Lanard & Axilbund v. Lloyds of London*, 458 F.3d 231, 236 (3d Cir.2006) (citing *U & W Indus. Supply, Inc. v. Martin Marietta Alumina, Inc.*, 34 F.3d 180, 185 (3d Cir.1994)). Similarly, we exercise "plenary review over the legal question of 'the nature and extent of the duty of due care. . . .'" *Andrews v. United States*, 801 F.2d 644, 646 (3d Cir.1986) (quoting *Redhead v. United States*, 686 F.2d 178, 182 (3d Cir.1982)).

III. Rule 52

Federal Rule of Civil Procedure 52(a)(1) provides that "[i]n an action tried on the facts without a jury or with an advisory jury, the court must find the facts specially and state its conclusions of law separately." Fed.R.Civ.P. 52(a)(1). This is a mandatory requirement. *H. Prang Trucking Co., Inc. v. Local Union No. 469*, 613 F.2d 1235, 1238 (3d Cir.1980) (citing 9 Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 2574, at 690 (1st ed.1971)); *Scalea v. Scalea's Airport Serv., Inc.*, 833 F.2d 500, 502 (3d Cir.1987) (*per curiam*). Typically, a Rule 52 violation occurs when a district court's inadequate findings render impossible "'a clear understanding of the basis of the decision,'" *H. Prang Trucking*, 613 F.2d at 1238 (quoting Wright & Miller, *supra*, § 2577, at 697), and those "'findings are obviously necessary to the intelligent and orderly presentation and proper disposition of an appeal,'" *Bradley v. Pittsburgh Bd. of Educ.*, 910 F.2d 1172,

1178 (3d Cir.1990) (quoting *Mayo v. Lakeland Highlands Canning Co*., 309 U.S. 310, 317, 60 S.Ct. 517, 84 L.Ed. 774 (1940)). *See also Berguido v. E. Air Lines, Inc*., 369 F.2d 874, 877 (3d Cir.1966) ("If a full understanding of the factual issues cannot be gleaned from the District Court's opinion, we would be obliged to remand for compliance with Rule 52(a)."). Although Rule 52 does not require hyper-literal adherence, *see Hazeltine Corp. v. Gen. Motors Corp*., 131 F.2d 34, 37 (3d Cir.1942), "an appellate court may vacate the judgment and remand the case for findings if the trial court has failed to make findings when they are required," *Giles v. Kearney*, 571 F.3d 318, 328 (3d Cir.2009) (citing *H. Prang Trucking*, 613 F.2d at 1238-39).

Instead of presenting his findings in accord with Rule 52, the trial judge here elected to "set forth in narrative fashion [his] findings of fact . . . and conclusions of law." *In re Frescati*, 2011 WL 1436878, at *1. Unfortunately, what followed leaves us unable to discern what were his intended factual findings. Moreover, in arriving at his particular legal conclusions, the trial judge held back making many of the factual findings that would support those conclusions, in effect going from first base to third across the pitcher's mound. While we do not endorse or require a panoply of extraneous factual findings, the overall dearth of clear factual findings, much less those pertaining to the heart of this matter—such as the draft of the *Athos I*—falls below what is required by Rule 52.

Because we cannot derive a full understanding of the core facts from the District Court's opinion, this was a violation of Rule 52 and itself a basis for remand. *Giles*, 571 F.3d at 328. In light of the legal

determinations set out below, factual clarification is required in any event.

IV. The Contractual Safe Berth Warranty

CARCO's promise to Star Tankers that the *Athos I* would be directed to a location that "she may safely get (always afloat)" is a provision known in context as either a safe port or safe berth warranty (to repeat again, we use for shorthand "safe berth warranty"). *See* Cooke *et al*., *supra*, ¶ 5.121 (citation omitted). This language triggers two separate protections: a contractual excuse for a master who elects not to venture into an unsafe port, and protection against damages to a ship incurred in an unsafe port to which the warranty applies. *See* 2 Thomas J. Schoenbaum, *Admiralty and Maritime Law* § 11-10, at 32-33 (5th ed.2011). In this case, only the second benefit of the safe berth warranty is at issue, as the *Athos I* was damaged in an allegedly unsafe port. Specifically at issue are the scope and applicability of this warranty, topics we explore below.

A. Was Frescati a Third-Party Beneficiary of the Safe Berth Warranty?

"'Before a stranger can avail himself of the exceptional privilege of suing for a breach of an agreement, to which he is not a party, he must at least show that it was intended for his direct benefit.'" *Robins Dry Dock & Repair Co. v. Flint*, 275 U.S. 303, 307, 48 S.Ct. 134, 72 L.Ed. 290 (1927) (quoting *German Alliance Ins. Co. v. Home Water Supply Co*., 226 U.S. 220, 230, 33 S.Ct. 32, 57 L.Ed. 195 (1912)). As Frescati is not a party to CARCO's promise to Star Tankers to provide a safe berth, there must be a compelling showing that it was nonetheless an intended beneficiary. The District Court held that this

was not the case because the testimony at trial failed to reveal any intent by CARCO to benefit Frescati. The Court, however, failed to inquire whether the contract itself established a third-party beneficiary relationship, a question of law. *See Pierce Assocs. v. Nemours Found.*, 865 F.2d 530, 535 (3d Cir.1988). We conclude that, although Frescati is not a named beneficiary to the safe berth warranty within the charter party between Star Tankers and CARCO, the *Athos I* benefits from this warranty, and Frescati, as the vessel's owner, is thus a third-party beneficiary.

Maritime contracts "must be construed like any other contracts: by their terms and consistent with the intent of the parties." *Norfolk S. Ry. Co. v. Kirby*, 543 U.S. 14, 31, 125 S.Ct. 385, 160 L.Ed.2d 283 (2004). "When a contract is a maritime one, and the dispute is not inherently local, federal law controls the contract interpretation." *Id.* at 22-23, 125 S.Ct. 385 (citing *Kossick v. United Fruit Co.*, 365 U.S. 731, 735, 81 S.Ct. 886, 6 L.Ed.2d 56 (1961)). We typically look to the Restatement of Contracts for the federal law on third-party beneficiaries. *Doe v. Pennsylvania Bd. of Prob. & Parole*, 513 F.3d 95, 106 (3d Cir.2008); *see* Restatement (Second) of Contracts § 302 (1981). A third-party may be a beneficiary to a contract of others where it is "appropriate to effect[ ] the intention of the parties," and "the circumstances indicate that the promisee intends to give the beneficiary the benefit of the promised performance." Restatement, *supra*, § 302(1)(b); *see also Cargill Int'l S.A. v. M/T Pavel Dybenko*, 991 F.2d 1012, 1019 (2d Cir.1993) (holding that a third-party beneficiary to a charter party "must show that 'the parties to that contract intended to confer a benefit on [it] when contracting; it is not enough that some benefit incidental to the performance of the contract may accrue to [it]'" (alterations in

original) (quoting *McPheeters v. McGinn, Smith & Co*., 953 F.2d 771, 773 (2d Cir.1992))).

In 1959, the Supreme Court held that vessels are automatic third-party beneficiaries of warranties of workmanlike service made to their charterers by stevedores who unload vessels at docks. *Crumady v. The Joachim Hendrik Fisser*, 358 U.S. 423, 428, 79 S.Ct. 445, 3 L.Ed.2d 413 (1959). This is because "[t]he warranty which a stevedore owes when he goes aboard a vessel to perform services is plainly for the benefit of the vessel whether the vessel's owners are parties to the contract or not." *Id*. This natural relationship between the entities was "enough to bring the vessel into the zone of modern law that recognizes rights in third-party beneficiaries." *Id*. (citation omitted). A year later, the Supreme Court extended this rule a logical step further in holding that "[t]he owner, no less than the ship, is the beneficiary of the stevedore's warranty of workmanlike service." *Waterman S.S. Corp. v. Dugan & McNamara, Inc*., 364 U.S. 421, 425, 81 S.Ct. 200, 5 L.Ed.2d 169 (1960).

Although these two Supreme Court cases aid Frescati's position, they do so only by analogy. As CARCO points out, the matter before us does not involve an implied warranty for workmanlike service, but an explicit assurance of safety in a document to which Frescati is not a party. The Court of Appeals for the Second Circuit, however, has applied *Crumady* and *Waterman* to a set of facts similar to the one before us. In *Paragon Oil Co. v. Republic Tankers, S.A*., 310 F.2d 169, 171 (2d Cir.1962) (Friendly, J.), a vessel owner (Paragon Oil Co., Inc.) and voyage charterer (Republic Tankers, S.A.) entered into a voyage charter with a safe berth warranty. Republic had executed a contract of affreightment (essentially a sub-voyage

charter) with a third-party that contained a safe berth warranty identical to the one it promised in the voyage charter. *Id*. From this, the Second Circuit concluded that Paragon (the owner) was "the true party in interest" to the safe berth assurance in the contract of affreightment even though it was not explicitly named in the contract between Republic (the voyage charterer) and the third-party. *Id*. at 175.

We agree with the Second Circuit's reasoning that *Crumady* and *Waterman* counsel in favor of Frescati's third-party beneficiary status.[8] Specifically, we are convinced that a safe berth warranty necessarily benefits the vessel, and thus benefits its owner as a corollary beneficiary.[9] "[T]he circumstances indicate"

---

[8] CARCO makes a belated argument that *Crumady* and *Waterman* are of dubious precedential value in light of the 1972 amendments to the Longshore[] and Harbor Workers' Compensation Act. These amendments required negligence (as opposed to an unsafe condition) for a longshoreman to recover against a ship owner, and abolished the ship owner's right of indemnity against the stevedore. *See* 33 U.S.C. § 905(b); *Scindia Steam Nav. Co., Ltd. v. De Los Santos*, 451 U.S. 156, 164-65, 101 S.Ct. 1614, 68 L.Ed.2d 1 (1981). This legislative exclusion, however, does not undermine the fundamental premise that a ship owner may benefit from an arrangement between third parties. As such, Judge Posner has noted that, following this amendment, "indemnity has continued to be sought in cases not involving longshoremen and hence not within the scope of the Longshore and Harbor Workers' Compensation Act." *Hillier v. S. Towing Co*., 714 F.2d 714, 718-19 (7th Cir. 1983) (Posner, J.).

[9] Insofar as CARCO cites to *Bunge Corp. v. MV Furness Bridge*, 390 F.Supp. 603, 604 (E.D.La.1974), it is unpersuasive, as its conclusion that the owner was not a third-party beneficiary of the sub-charterer's safe berth warranty is unsupported by any reasoning. Further, this issue was abandoned when the Court later resolved the merits of the claim and held that the sub-charterer had "violated a legal duty [in tort] whether or not it also had a contractual one." *Bunge Corp. v. MV Furness Bridge*, 396

that the warranty is intended to endow the vessel with "the benefit of the promised performance." Restatement, *supra*, § 302(1)(b). Because the warranty explicitly covers the safety of the vessel, it would be nonsensical to deprive the vessel's owner the benefits of this promise, as the owner is ultimately the one most interested in the vessel's status and is obligated to maintain its condition.[10]

Moreover, it would work an odd windfall if Star Tankers were allowed to collect on CARCO's safe berth warranty but not be required to pass on those remedial dollars to the ship's ultimate owner. That illogical result could occur where the owner (Frescati) received no safe berth warranty from the time charterer (Star Tankers), or where—as in the case before us—Frescati received a less comprehensive warranty from Star Tankers than Star Tankers received from the voyage charterer (CARCO).[11] This would theoretically allow Star Tankers to collect for damages to the ship that were actually paid by Frescati. While we are mindful of the parties' ability to contract differently, there is no indication that Star Tankers bargained for the

---

F.Supp. 852, 858 (E.D.La.1975), *rev'd*, 558 F.2d 790 (5th Cir.1977). On appeal, the Court of Appeals for the Fifth Circuit agreed that the issue of contractual liability was "irrelevant" because none of the parties could have intended to warrant complete safety of an inadequately small wharf. 558 F.2d at 801-02.

[10] Under the time charter, Frescati remained responsible for insuring, maintaining, and restoring the *Athos I* throughout the term of the charter. J.A. at 1447-48 (Time Charter Party ¶¶ 3, 6).

[11] Although we ultimately conclude that the full safe berth warranty from CARCO to Star Tankers is an express assurance made without regard to the amount of diligence taken by the charterer, *see infra* Part IV.B, Star Tankers only promised due diligence to Frescati, J.A. at 1448 (Time Charter Party 14).

potential of such an unearned windfall—profiting from the mishaps of the vessels within its tanker pool when it did not pay for the repair of those mishaps. Instead, requiring warranties from voyage charterers like CARCO is a way to insure against claims asserted by vessel owners. Per this path, the promise made to protect a vessel flows through the intermediary party(ies) to the ultimate party who bore the pain of an unsafe port, here the vessel's owner.

We discount CARCO's suggestion that it was unaware of Frescati's status as the true owner of the *Athos I*. CARCO had completed an internal vetting of the *Athos I* in October of 2004 that identified Frescati as its owner. J.A. at 1318 (Citgo Vetting Report). Regardless, even if the ultimate owner had been undisclosed, CARCO expressly warranted to provide a safe berth, which is a promise made "plainly for the benefit of the vessel." *Crumady*, 358 U.S. at 428, 79 S.Ct. 445. Thus we see no reason why the *Athos I's* owner would be any less entitled to rely on this warranty, whether it was identified or not. Frescati, as the owner of the *Athos I*, may therefore rely on CARCO's safe berth warranty as a third-party beneficiary.

B. The Scope of the Safe Berth Warranty

That Frescati may benefit from CARCO's safe port/safe berth warranty requires that we delineate its comprehensiveness, a question of first impression in our Circuit. Though the District Court did not need to reach this legal issue after determining that Frescati was not a third-party beneficiary, it nonetheless concluded—as an alternate holding—that the safe berth warranty was not breached because "CARCO fulfilled its duty of due diligence. . . ." *In re Frescati*, 2011 WL 1436878, at *6. We part from this holding, as

we believe the Court incorrectly relied on *Orduna S.A. v. Zen-Noh Grain Corp*., 913 F.2d 1149, 1157 (5th Cir.1990), which held that the safe berth provision was not a full warranty but required only due diligence.

A port is deemed safe where "the particular chartered vessel can proceed to it, use it, and depart from it without, in the absence of abnormal weather or other occurrences, being exposed to dangers which cannot be avoided by good navigation and seamanship." Cooke *et al., supra*, ¶ 5.137; *Leeds Shipping v. Societe Francaise Bunge* (*The Eastern City*), [1958] 2 Lloyd's Rep. 127, 131 (same). Whether a port is safe refers to the particular ship at issue, Cooke *et al*., *supra*, ¶ 5.68, and goes beyond "the immediate area of the port itself" to the "adjacent areas the vessel must traverse to either enter or leave," Coghlin *et al., supra*, ¶ 10.124. In other words, a port is unsafe—and in violation of the safe berth warranty—where the named ship cannot reach it without harm (absent abnormal conditions or those not avoidable by adequate navigation and seamanship).[12]

This formulation is deeply rooted. In 1888, the Supreme Court held charterers liable for breach of a safe berth warranty in insisting that a ship sail to Aalborg, Denmark, a port that was impossible for the particular ship to reach due to a sand bar and the absence of any reasonably safe place to anchor or discharge. *The Gazelle*, 128 U.S. 474, 485–86, 9 S.Ct. 139, 32 L.Ed. 496 (1888). In a similar fashion, the

[12] On the facts before us, we need not define the outer geographical bounds of the safe berth/safe port warranty. At oral argument CARCO conceded that the warranty—if applicable—"would include the area in and around Paulsboro," including the Anchorage. Oral Arg. Tr. 62:18-64:3, Sept. 20, 2012.

Supreme Court held in 1902 that charterers failed to provide a safe dock where the ship in question could not reach it without damage. *Mencke v. Cargo of Java Sugar*, 187 U.S. 248, 253, 23 S.Ct. 86, 47 L.Ed. 163 (1902). Specifically, the charterers were aware that the ship's mast was too tall to clear the Brooklyn Bridge when they designated a discharge dock upriver from the Bridge. *Id*. at 250, 23 S.Ct. 86. The Court concluded that this was a warranty violation by analogizing the overhead obstacle to a submerged one: "A ship could not be said to be afloat, whether the obstacle encountered was a shoal or bar in the port over which she could not proceed, or a bridge under or through which she could not pass, nor could she be said to have safely reached a dock if required to mutilate her hull or her permanent masts." *Id*. at 253, 23 S.Ct. 86; *see also Carbon Slate Co. v. Ennis*, 114 F. 260, 261 (3d Cir.1902) (concluding that safe berth warranty was violated where the ship "was directed to load at a berth where a full cargo, if taken aboard, would have made it impossible for her, at any stage of water or at any time, to pass out over the harbor bar").

The Court of Appeals for the Second Circuit has long held that promising a safe berth effects an "express assurance" that the berth will be as represented. *Cities Serv. Transp. Co. v. Gulf Ref. Co*., 79 F.2d 521, 521 (2d Cir.1935) (*per curiam*), recognized this principle in holding that a master was not liable for damages incurred in reliance on a charter party's safe berth warranty at a particular dock. In *Park S.S. Co. v. Cities Serv. Oil Co*., 188 F.2d 804, 806 (2d Cir.1951) (Swan, J.), the same Court elaborated that the purpose of the warranty was to memorialize the relationship between the contracting entities: "the charterer bargains for the privilege of selecting the precise place for discharge and the ship surrenders that privilege

in return for the charterer's acceptance of the risk of its choice." *Paragon* continued this tradition in contrasting the duty of a wharfinger (an admiralty term for an "owner or occupier of a wharf," *Black's Law Dictionary* 1733 (9th ed.2009))—to exercise reasonable diligence in keeping its berth safe for incoming vessels—with that of a charterer who is contractually bound to provide "not only a place which he believes to be safe, but a place where the chartered vessel can discharge 'always afloat.'" 310 F.2d at 173 (citation and internal quotation marks omitted). *See also Venore Transp. Co. v. Oswego Shipping Corp*. 498 F.2d 469, 472 (2d Cir.1974) (citing *Park S.S. Co*., 188 F.2d at 804) (sub-charterer had a non-delegable "obligation to provide a completely safe berth," which was breached when it permitted the ship to dock at a berth that it knew was unsafe).

Thus, prior to the Fifth Circuit's decision in *Orduna*, "the law concerning safe ports had a rather secure berth in maritime law and it was well settled that a safe port clause in a charter constituted a warranty given by a charterer to an owner." Cooke *et al*., *supra*, ¶ 5.124. *Orduna* created quite a splash in veering from the view that a charterer warrants a ship's safety, and established instead for the Fifth Circuit that a safe berth warranty merely "imposes upon the charterer a duty of due diligence to select a safe berth." 913 F.2d at 1157. While *Orduna* acknowledged the Second Circuit's contrary perspective, it dismissed that interpretation in deference to critical commentators, namely Professors Grant Gilmore and Charles L. Black. *Id*. at 1156 (citing Grant Gilmore & Charles L. Black, *The Law of Admiralty* § 4-4, at 204-06

(2d ed.1975)). We do not find their criticism so compelling.[13]

Orduna concluded that "no legitimate legal or social policy is furthered by making the charterer warrant the safety of the berth it selects." *Id*. at 1157. Primarily, the Court reasoned that it is more sensible to impose fault on the "master on the scene" rather than a far away merchant charterer.[14] *Id*. at 1156

---

[13] Gilmore's book has been described as being

> more adapted for the teacher than for the active lawyer or judge. As teachers, the authors are interested in controversy. Wherever they can find it, in the long past or in the nearer present, they stir it up, and frequently label it 'confusion.' . . . It is all very interesting; but in the various admiralty fields—except personal injury and death—most of the old controversies have long been settled. Therefore, our authors tend to give a picture which does not resemble the daily grist of today. Sometimes indeed, straining to keep old battle-fires ablaze, they sprinkle harsh words on the judges who settled the old disputes. . . . On the whole, this is a teaching book rather than an office and courtroom work of reference; and it must be read as such.

Arnold W. Knauth, Book Review, 58 Colum. L.Rev. 425, 426-28 (1958) (reviewing Grant Gilmore & Charles L. Black, Jr., *The Law of Admiralty* (1957)).

[14] *Orduna* also noted that a due diligence standard would not upset a master's ability to rely on a safe berth warranty in rejecting an unsafe port. 913 F.2d at 1156. This goes only so far, as it addresses but half of the safe berth warranty's protection, which is both to provide a master with a contractual excuse for avoiding an unsafe port and to protect for damages actually sustained in unsafe ports. Additionally, to the extent *Orduna* relied on *Atkins v. Fibre Disintegrating Co*., 2 F.Cas. 78 (E.D.N.Y.1868), *aff'd sub nom. Atkins v. The Disintegrating Co*., 85 U.S. 272, 299, 18 Wall. 272, 21 L.Ed. 841 (1873), we are similarly unpersuaded. While *Atkins* featured a safe berth warranty, *id*. at 79, it was essentially an application of the named port exception. *See infra* Part IV.D. As the ship's master made

(citing Gilmore & Black, *supra*, § 4-4, at 204-06). The appeal of this construction here is illusory. While an owner is liable for its master's superseding negligence, *see* Cooke et al., *supra*, ¶ 5.151, we see no policy reason why a master on board a ship would normally be in any better position to appraise a port's more subtle dangers than the party who actually selected that port. The "commercial reality [is] that it is the charterer rather than the owner who is selecting the port or berth," *id*. ¶ 5.126, and the charterer is more likely to have at least some familiarity with the port it selected. After all, charterers do not select ports without good reason (and, in the case before us, CARCO was directly on the scene, *as it had selected its own berth*). Messrs. Gilmore and Black (famous in other areas of law-Gilmore on commercial law, including secured transactions, and Black on constitutional law) acknowledged that their rationale is undermined in those instances where a charterer has more knowledge of a danger than the master (although they explain that these situations could be remedied through tort liability[15]). We disagree. To any extent a charterer, however distant, bargains to send a ship to a particular port and warrants that it shall be safe there, we see no basis to upset this contractual arrangement.

---

outside inquiries and was fully aware of the port's dangers and yet did not object, he waived his right to complain later for damage. *Id*. at 79-80.

[15] Specifically, Gilmore & Black would find an actionable wrong for charterers directing ships to ports with known dangers, and suggest that a charterer may sometimes be "so situated as reasonably to be charged with a duty of inquiry, particularly as to berth." Gilmore & Black, *supra*, § 4-4, at 205.

We are persuaded that the Second Circuit's longstanding formulation of the safe berth clause is the one we should follow.[16] *See* 2 Schoenbaum, *supra*, § 11-10, at 32-33 (citing *The Gazelle*, 128 U.S. 474, 9 S.Ct. 139, 32 L.Ed. 496 (1888)) ("[I]f the ship reasonably complies with the order and proceeds to port, the charterer is liable for any damage sustained."); Stewart C. Boyd *et al., Scrutton on Charter Parties and Bills of Lading*, Section IX, art. 69, at 127 (20th ed.1996) (same); 2A Michael F. Sturley, *Benedict on Admiralty* § 175, at 17-25 (7th ed.2012) (same); Coghlin *et al*., *supra*, ¶ 10.110 (same). *But see* Gilmore & Black, *supra*, § 4-4, at 204-06.

Beyond the near consensus of these authorities, we are also convinced that an "express assurance" warranty is most consistent with industry custom. *See Park S.S*., 188 F.2d at 806; *Cities Serv*., 79 F.2d at 521. Vessel charters are formalized via "highly standardized forms," 2 Schoenbaum, *supra*, § 11-1, at 4-5 (citation omitted). That some forms explicitly adopt a due diligence standard[17] suggests that the understood default is to impose liability on the charterer without regard to the care taken. *See* Coghlin *et al*., *supra*, ¶¶ 10.52, 10.54. Reading these warranties as dappled

---

[16] Though not dispositive, we also note that adhering to the Second Circuit's view on this issue promotes uniformity of maritime law along the mid-Atlantic seaboard. *See Sea-Land Serv., Inc. v. Dir., Office of Workers' Comp. Programs*, 552 F.2d 985, 995–96 n. 18a (3d Cir.1977) (noting deference pursuant to federal comity and uniformity in maritime law to the Second Circuit, "since [the Third Circuit] shares appellate review with the Second Circuit over the geographical area comprising one of the country's major east coast harbor complexes").

[17] As already mentioned, the time charter party between Star Tankers and Frescati contains such a standard, as it is predicated on a Shelltime 4 form. *See* Coghlin *et al*., *supra*, ¶ 10.54.

with due diligence would make contractual language explicitly adopting a due diligence metric pointless, and we disfavor contract interpretation "that 'render[s] at least one clause superfluous or meaningless.'" *Sloan & Co. v. Liberty Mut. Ins. Co.*, 653 F.3d 175, 181 (3d Cir.2011) (alteration in original) (quoting *Garza v. Marine Transp. Lines, Inc.*, 861 F.2d 23, 27 (2d Cir.1988)). Moreover, the "always afloat" language plainly suggests an express assurance. To the extent the Fifth Circuit in *Orduna* deviated from this well-established standard, we are not persuaded by its reasoning and decline to follow the course it charted.[18] Hence we conclude that the safe berth warranty is an express assurance made without regard to the amount of diligence taken by the charterer.

C. Was the Safe Berth Warranty Breached ?

As explained, a berth is deemed safe when a ship may "proceed to it, use it, and depart from it without . . . being exposed to dangers." Coghlin *et al.*, *supra*, ¶ 10.123. As noted above, *see supra* note 12, CARCO conceded at oral argument that the safe berth warranty—if applicable—"would include the area in and around Paulsboro," including the Anchorage, and we therefore need not delineate the geographic sweep of this warranty. Thus having determined that Frescati was a beneficiary of CARCO's safe berth warranty and that this warranty applies irrespective of a charterer's diligence, we proceed to whether the warranty was actually breached by the anchor's presence. Specifically, we need to determine whether

[18] We are also unpersuaded that this warranty applies only to known hazards. This would effectively undermine the more strict nature of the warranty by requiring some level of due diligence, which, for the reasons above, we do not believe is the case.

the anchor rendered CARCO's port unsafe for a ship of the *Athos I's* agreed-upon dimensions and draft.

That the *Athos I* was injured by the anchor does not automatically indicate that the warranty was breached. CARCO's safe berth warranty was not a blank check; it did not warrant that any ship would be safe at its port, but instead assured that the port would be safe for the *Athos I*. Boyd *et al*., *supra*, Section IX, art. 69, at 129-30 (citations omitted) ("Whether a port is a 'safe port' is in each case a question of fact and degree and must be determined with reference to the particular ship concerned. . . ."); *In re Lloyd's Leasing Ltd*., 764 F.Supp. 1114, 1135 (S.D.Tex.1990) ("The safety of a port is to be determined with reference to the vessel and the circumstances surrounding that vessel's use of the port."). In this regard, the District Court correctly framed the ultimate issue as whether it was possible for a ship of the *Athos I's* purported dimensions to reach CARCO's berth safely. *In re Frescati*, 2011 WL 1436878, at *6.

The Court, however, neglected to make the necessary factual findings to resolve whether the warranty was actually breached. Instead, it concluded "that the port and berth were generally safe" due to "the volume of commercial traffic that passed without incident," notwithstanding that it was impossible to know how many of those ships had actually passed over the anchor. *Id*. That similar ships had successfully berthed at the port is irrelevant to whether the warranty was actually breached in this case, as "[a] dangerous place may often be stopped at or passed over in safety." *The Gazelle*, 128 U.S. at 485, 9 S.Ct. 139. Instead, the Court should have evaluated

whether the port was safe based on the facts particular to the *Athos I* and its arrival.

From what we can glean from the record, it appears that CARCO warranted a safe berth with the understanding that the *Athos I* would be drawing as much as 37 feet of water upon its arrival. The Voyage Instructions indicate that the vessel would be filled with a quantity of crude oil "always . . . consistent with a 37 [foot] or less [fresh water] sailing draft at loadport," J.A. at 1242, and Captain Markoutsis confirmed this directive, Markoutsis Test. 199:5-9, Oct. 13, 2010. He testified, moreover, that he was "afraid of that draft," and opted to load the ship to only 36'6".[19] *Id*. at 200:7-25. This latter figure was confirmed by CARCO Port Captain William Rankine, who testified that the *Athos I* reported that it was drawing 36'6", Rankine Test. 41:5-12, Nov. 22, 2010, and also by Steamship Agent Stephen Carroll, Carroll Test. 63:2-4, Oct. 7, 2010. In any event, the warranty made by CARCO appears to have covered the *Athos I* up to a draft of 37 feet.[20] Yet, as noted throughout this

---

[19] We note there is minor disagreement as to this particular figure. While the record suggests that the *Athos I* was represented as drawing 36'6", Frescati explains that it was actually 367"[sic]. This one-inch difference is on its face irrelevant to our analysis, as both drafts are less than 37 feet.

[20] Of course, this is ultimately a factual matter for remand. As such, we also note that the Voyage Charter between CARCO and Star Tankers indicates that the "[l]oaded draft of Vessel on assigned summer freeboard [is] 12.423 meters [40.76 feet] . . . in salt water." J.A. at 1220 (Tanker Voyage Charter Party, Part I.A). While we understand this to mean that the *Athos I* could draw over 40 feet in salt water if filled to its summer capacity, the facts before us appear to indicate that it was directed to arrive at CARCO's port drawing 37 feet or less, and that this was the understood basis for the safe berth warranty.

opinion, the District Court made no finding on the vessel's actual draft at the time of the accident. This needs to be corrected on remand.[21]

If it is found that the *Athos I* was drawing 37 feet or less and absent a determination of bad navigation or seamanship,[22] that finding would indicate that the warranty had been breached because the ship sustained damage. What, if anything, under the water may have caused that margin to be diminished is therefore immaterial. It could have been the remnants of a shipwreck, a range of rocks, a jutting reef, or a shoal. In this case, it happened to be an abandoned anchor that protruded into the *Athos I's* hull. And by

---

[21] We note that there is record evidence suggesting that the promised 37 feet of clearance was indeed afforded, namely that Dr. Traykovski opined that there was—in his most conservative estimate—between 37.2 and 37.8 feet of water not only above the riverbed but the anchor itself (presumably at low tide). Traykovski Test. 49:12-50:24, Nov. 4, 2010.

[22] Although the warranty exception for abnormal weather conditions is not at issue here, CARCO argues that the exceptions for bad navigation and seamanship apply. CARCO's Br. at 77, 80; *see also* Coghlin *et al*., *supra*, ¶¶ 10.148, 10.166 (citations omitted); Cooke *et al*., *supra*, ¶ 5.151 (citation omitted); *Paragon*, 310 F.2d at 173-74 (quoting *Constantine & Pickering S.S. Co. v. W. India S.S. Co*., 199 F. 964, 967-68 (S.D.N.Y.1912)) ("It is true that one liable for violating a safe berth clause 'may lessen the amount of damages for which he is responsible by showing negligence, or even lack of diligence, on the part of the person wronged, in failing to take steps to lessen certain or even probable damages.'").

CARCO argues that the vessel's master and the navigation officer believed they were docking at high tide, and in fact were not (as the tide at the time of the accident was rising but an hour removed from low tide). However, we find no indication in the record that the *Athos I* was attempting to dock at an inappropriate time.

its safe berth warranty, CARCO assumes liability for that damage.

If the draft at the time of the accident cannot be determined, or if the *Athos I* is found to have been drawing more than 37 feet, it will be necessary to ascertain the amount of clearance that existed above the anchor to conclude whether the promised 37 feet of water depth was actually provided.[23] Because it appears that CARCO assured a safe berth for a ship drawing 37 feet or less, our concern is whether 37 feet of clearance existed at the time of the accident.

D. The Named Port Exception

CARCO exposes one additional limitation to the broad protection generally afforded by the safe berth warranty—the named port exception. In essence, "[w]hen a charter names a port and the master proceeds there without protest, the owner accepts the port as a safe port, and is bound to the conditions that exist there." *Bunge Corp. v. M/V Furness Bridge*, 558 F.2d 790, 802 (5th Cir.1977) (internal quotation marks omitted) (quoting *Pan Cargo Shipping Corp. v. United*

[23] If the vessel is found to have been drawing more than 37 feet, this could potentially reduce CARCO's liability even if it were determined that a safe berth was not provided. In this circumstance, the commentators note a trend in which damages resulting from both a breach of a safe berth warranty and the master's negligence may appropriately be split between the parties. Cooke *et al*., *supra*, ¶ 5.152; 2A Sturley, *supra*, § 175, at 17-26; *see also Ore Carriers of Liber., Inc. v. Navigen Co*., 435 F.2d 549, 550-51 (2d Cir.1970) (affirming an order dividing a ship's damages between the owner and charterer where the charterer had warranted a safe port, but the owner nonetheless proceeded "with full knowledge of the probable unavailability of tug assistance," which was hazardous). In any event, these issues can also be resolved on remand.

States, 234 F.Supp. 623, 638 (S.D.N.Y.1964), *aff'd*, 373 F.2d 525 (2d Cir.1967)). The purpose of the exception is to shift liability to the owner once a ship's master has had ample opportunity to discover a port's hazards.[24] As such, the exception may apply in instances in which a master—without lodging any objection—is charged "with full knowledge of local conditions which make it unsafe for that particular voyage." Coghlin *et al*., *supra*, ¶ 10.158; *see also* Cooke *et al*., *supra*, ¶ 5.130 ("[T]he master's conduct in entering a port he considers unsafe without raising a protest may result in a waiver of the safe port warranty.").

This formulation is essentially an application of the above-mentioned rule that negligent seamanship will nullify the safe port warranty: once a particular risk becomes known, it is then the master's responsibility to avoid it through competent seamanship or to declare the port unsafe. This application of the exception does not apply to the case before us, however, as there is no suggestion that anyone—much

---

[24] Although it never uses the term "named port exception," *Atkins v. Fibre Disintegrating Co*., 2 F.Cas. 78 (E.D.N.Y.1868), *aff'd sub nom. Atkins v. The Disintegrating Co*., 85 U.S. 272, 299, 18 Wall. 272, 21 L.Ed. 841 (1873), is a paradigm for the exception. There, "the peril of the port was such that no vessel of [the ship's] size could get out without making her safety from the reefs dependent entirely upon the continuance of the breeze." *Id*. at 79. Predictably, the breeze failed, and the ship was damaged on the reef. *Id*. at 78. The trial court concluded, however, that the master could not rely on the agent's representation that the port was safe because he failed to object to the port after having "made inquiries . . . as to the character of the port, which was, moreover, fully described in the Coast Pilot [the official publication describing the coast]." *Id*. at 79-80.

less the master of the *Athos I*—had any inkling as to the anchor's existence in the River.

Instead, and more pertinent to the *Athos I*, the exception is also triggered when a particular port is named in the charter party. *See* Cooke *et al*., *supra*, ¶ 5.130 ("If the charter names the ports or berths the vessel will call at, the general rule is that the ports or berths will have been accepted by the owner as safe, such that the safe port/safe berth warranty is deemed to have been waived."); Coghlin *et al*., *supra*, ¶ 10.164 (same) (citations omitted). This particular application of the exception is very broad and would seem poised to swallow the rule, but frequently the voyage charter will specify a range of ports, and thus the "safe [berth] warranty continues to play a role in voyage charters." Cooke *et al*., *supra*, ¶ 5.123. In fact, this is such a case; the voyage charterer (CARCO) did not specifically name the discharge port in the voyage charter party, but instead directed that the *Athos I* would transit to one or two safe ports located somewhere on the United States Atlantic Coast, Gulf Coast, or the Caribbean Sea. J.A. at 1225 (Tanker Voyage Charter Party, Special Provision 2). CARCO nonetheless maintains that this exception applies even where the port location is not specifically named in the charter so long as some advance notice of the designated port is given. It is unclear how much notice would be required under CARCO's theory of the exception, although CARCO argues that it applies here because there is evidence that the master knew approximately two weeks before the accident that the *Athos I* would be headed to Paulsboro, New Jersey.

We need not address this issue of advance notice because we conclude that the hazard of the submerged anchor was not the sort contemplated by the

exception. As explained above, the purpose of the named port exception is to "relieve[ ] the charterer of liability for damage arising from conditions at that port so long as those conditions were *reasonably foreseeable*." *Duferco Int'l Steel Trading v. T. Klaveness Shipping A/S*, 333 F.3d 383, 387 (2d Cir.2003) (emphasis added) (citations omitted). Without at least an opportunity to discover a particular port's specific pitfalls, the identity of the port would be irrelevant. This would defeat the purpose of naming the port, which is to excuse charterers for the results of hazardous conditions known to the master, not to exonerate them completely from all resulting liability.

In sum, here the particular hazard—the submerged anchor—was unknown to the parties. As the naming of CARCO's port ahead of time did not provide the *Athos I* with an opportunity to accept this unknown hazard, the exception does not come into play.[25]

V. The Tort Claims

Should its claim regarding CARCO's contractual liability not succeed, Frescati argues in the alternative that CARCO is liable as the owner of the terminal receiving the *Athos I* under two tort theories: negligence and negligent misrepresentation. The

---

[25] The District Court determined that although underwater hazards are a well-known threat, none of the parties had any reason to believe that Anchorage Number Nine was likely to conceal such a menace. *In re Frescati*, 2011 WL 1436878, at *2. To the extent the Court later determined that knowledge "in general of lost or abandoned objects in the river" was sufficient to trigger this exception, *id*. at *7, that amounted to an error of law. This sort of general knowledge cannot be used to impute knowledge of a specific condition, and we see no evidence that the Delaware River was known to be particularly treacherous in this regard.

District Court held both theories inapplicable. Although we agree that the negligent misrepresentation claim fails on these facts, we disagree with the Court's conclusion that Frescati's negligence claim is necessarily precluded.

A. Negligence

Negligence in admiralty law is essentially coextensive with its common law counterpart, requiring: (1) "[t]he existence of a duty required by law which obliges the person to conform to a certain standard of conduct"; (2) "[a] breach of that duty by engaging in conduct that falls below the applicable standard or norm"; (3) a resulting loss or injury to the plaintiff; and (4) "[a] reasonably close causal connection between the offending conduct and the resulting injury." 1 Schoenbaum, *supra*, §§ 5-2, at 252; *Pearce v. United States*, 261 F.3d 643, 647 (6th Cir.2001) (citation omitted) (same).

Because this accident resulted in a clear loss, we address the existence of a duty, the potential breach of that duty, and causation. As discussed above, the wharfinger in this case—CARCO—contracted to provide the *Athos I* a safe berth. In the tort context, however, a wharfinger is not a guarantor of a visiting ship's safety, but is "'bound to use reasonable diligence in ascertaining whether the berths themselves and the approaches to them are in an ordinary condition of safety for vessels coming to and lying at the wharf.'" *Smith v. Burnett*, 173 U.S. 430, 436, 19 S.Ct. 442, 43 L.Ed. 756 (1899) (quoting, with approval, *The Calliope*, [1891] A.C. 11 (H.L.) 23 (appeal taken from Eng.)). This is not an unconstrained mandate to "ensure safe surroundings or warn of hazards merely in the vicinity." *In re Nautilus*, 85 F.3d at 116 (citing *Trade Banner Line, Inc. v. Caribbean S.S. Co., S.A.*,

521 F.2d 229, 230 (5th Cir.1975)). Instead, a visiting ship may only expect that the owner of a wharf has afforded it a safe approach. *Id*. (citations omitted). In being invited to dock at a particular port, "a vessel should be able to enter, use and exit a wharfinger's dock facilities without being exposed to dangers that cannot be avoided by reasonably prudent navigation and seamanship." *Id*.

While CARCO has a duty to maintain a safe approach to its terminal, we must determine the geographic scope of that duty.

i. The Scope of the Approach

The geographic scope of a safe approach has been largely unaddressed by the courts. Frescati argues that the scope should be inferred as a matter of custom and practice, and CARCO counters that the approach should be a function of the wharfinger's exertion of control. The District Court, in attempting to adopt a workable method of analysis, was chiefly concerned about CARCO's lack of control in the Anchorage and the absence of a limiting principle if it were to define the approach as the waters that a ship "naturally would traverse." *In re Frescati*, 2011 WL 1436878, at *4. Accordingly, it opted to limit the approach to "the area 'immediately adjacent' to the berth or within 'immediate access' to the berth." *Id*. (quoting *Western Bulk Carriers v. United States*, No. S-97-2423, 1999 WL 1427719, 1999 U.S. Dist. LEXIS 22371, at *20-21 (E.D.Cal. Sept. 14, 1999)). Such immediacy, we believe, sets too constricted a path to the berth. Instead, we hold that an approach should be understood by its ordinary terms, and that its scope is derived from custom and practice at the particular port in question.

Bouchard Transportation Co. v. Tug Gillen Brothers, 389 F.Supp. 77 (S.D.N.Y.1975), is helpful in defining the geographic scope of an approach. It partially concerned a claim by a barge owner against the terminal owner for negligence in failing to maintain a safe approach and to warn of an unsafe condition. *Id*. at 79. The District Court there found that the approach began when the barge—traveling mid-channel up the Hudson River—altered its heading such that it was on a straight course to the terminal, which was the normal practice for ships docking there. *Id*. at 80. While executing this procedure, the barge grounded, its hull was punctured, and oil was lost.[26] *Id*. at 80-81. *Bouchard* concluded that the terminal owner "was negligent in failing to maintain the approach to its terminal, in particular that area outside the river channel and within its dominion and control, normally utilized as the southerly approach to its ship dock, free of obstruction and safe for vessels approaching said terminal."[27] *Id*. at 81.

---

[26] The grounding in *Bouchard* occurred "immediately adjacent to the ballast dock," approximately 50 feet away. 389 F.Supp. at 81. This "immediately adjacent" language, however, does not refer to the beginning of the approach, but the location of the hazard within the approach. The District Court in our case adopted this language—citing *Western Bulk Carriers*, 1999 WL 1427719, 1999 U.S. Dist. LEXIS 22371, at *20—as a "reasonable definition of 'approach.'" *In re Frescati*, 2011 WL 1436878, at *4. We believe this interpreted *Bouchard* incorrectly.

[27] CARCO argues that this reference to "dominion and control" is a prerequisite to *Bouchard*'s holding. We do not view control as a requirement, but as a fact of that case where the port was also deemed negligent for failing to warn of shallow waters in an area directly off its dock where it had previously dredged. 389 F.Supp. at 80, 83. Instead, in relying primarily on *Smith v. Burnett*, *Bouchard* held that the terminal owner simply "had a duty to ascertain any imminent dangers to [the ship] as it approached."

Less instructive, but still worth exploring, is *P. Dougherty Co. v. Bader Coal Co*., 244 F. 267 (D.Mass.1917). There, an invitation to use a particular dock in a charter party was construed to "extend[ ] to the approaches to the dock, and to the water which would naturally be traversed or used by a vessel discharging there." *Id*. at 270 (citing *Hartford & N.Y. Transp. Co. v. Hughes*, 125 F. 981 (S.D.N.Y.1903)). Although *P. Dougherty* is of limited usefulness on its facts (the Court was interpreting the parties' express agreement to use the dock), its conclusion that the wharfinger's obligation covered "individual approaches," distinguished from "the common channel," is nonetheless helpful. *Id*. More recently, *MS Tabea Schiffahrtsgesellschaft mbH & Co. KG v. Bd. of Com'rs of the Port of New Orleans*, No. 08-3909, 2010 WL 3923168, at *2 (E.D.La. Sept. 29, 2010), *aff'd*, 434 Fed.Appx. 337 (5th Cir.2011), similarly defined the approach as "the area through which vessels travel in order to move from the main channel of the river to the berth." *See also McCaldin v. Parke*, 142 N.Y. 564, 37 N.E. 622, 624 (1894) (determining that a cluster of rocks "not in any channel which had to be used to approach the wharf," but potentially "in that part of the river used for general navigation," was not within the approach).

In light of these cases, we are persuaded by the suggestion in the maritime industry associations' *amici* brief that an approach should be afforded its plain meaning. *See* Mar. Indus. Ass'ns *Amici* Br. at 20. As a noun, "approach" is defined as "a drawing near in space or time," and "a way, passage, or avenue by which a place or a building can be approached."

Id. at 83. Further, to any extent *Bouchard* does suggest that control is required, we disagree for the reasons explained below.

Webster's Third New Int'l Dictionary 106 (1971). This suggestion is persuasively illustrated by *amici's* reference to an airplane on final approach or a golf ball approaching the green. Both examples capture the intuitive meaning of the term as the beginning of a final, linear path to a fixed point. In fact, *Webster's* specifically incorporates those examples into its definition, listing "a golfing stroke from the fairway for the green," "the steps and motion of a bowler before he delivers the ball," and the "descent of an airplane toward a landing strip." *Id*.

What is an approach should be given its same plain meaning in the maritime context; when a ship transitions from its general voyage to a final, direct path to its destination, it is on an approach. This is the most logical construction, and it comports with those cases suggesting that an approach should be gleaned from actual practice. *See, e.g., Bouchard*, 389 F.Supp. at 80-81 (concluding that the approach began where vessels departed the channel on a direct course to the receiving dock and defined it pursuant to the area "normally utilized"). It also reflects the definition used in the maritime industry. For example, *The Mariner's Handbook* defines "approaches" as "[t]he waterways that give access or passage to harbours, channels, and similar areas." J.A. Petty, *The Mariner's Handbook* 226 (8th ed.2004). Further, in most cases it will not result in a line-drawing problem, a concern raised by CARCO and shared by the District Court. Entire rivers, bays, and oceans will not be transformed into approaches. Instead, in most instances the approach will begin where the ship makes its last significant turn from the channel toward its appointed destination following the usual path of ships docking at that terminal. This analysis will necessarily vary on the characteristics of a particular port, and there will

be close and difficult cases. Accordingly, we believe it may be useful to analogize the final approach of a vessel to a port to that of a driveway leading to a home from the public road.[28] It is the last segment of the voyage leading directly to the host's door. Marine navigation is further complicated in that ships sometimes have the luxury of approaching through a variety of different courses across open water. Yet, so long as a ship is not approaching in an illogical, unreasonable, or disallowed manner, it will be deemed within its approach when it is within this final phase of its journey.

ii. Was the *Athos I* Within the Approach to CARCO's Terminal When the Accident Occurred ?

Fortunately, the case before us is not one of the difficult ones, for the facts indicate that the *Athos I* was within the approach when it struck the anchor. First, the vessel was following the usual path for ships of its size docking at CARCO's terminal, having turned

---

[28] In *Smith v. Burnett*, the United States Supreme Court quoted a Massachusetts Supreme Court case making a similar comparison where a defendant failed to warn a schooner of a rock it knew of adjacent to its wharf.

> This case cannot be distinguished in principle from that of the owner of land adjoining a highway, who, knowing that there was a large rock or a deep pit between the traveled part of the highway and his own gate, should tell a carrier, bringing goods to his house at night, to drive in, without warning him of the defect, and who would be equally liable for an injury sustained in acting upon his invitation, whether he did or did not own the soil under the highway.

173 U.S. at 434, 19 S.Ct. 442 (quoting *Carleton v. Franconia Iron & Steel Co*., 99 Mass. 216, 219 (1868) (internal quotation marks omitted)).

away from the channel at the usual point and was being pushed by two tugboats in a straight path toward CARCO's pier. Moreover, there were other indicators that the *Athos I* had ceased navigating generally and was within the final phase of its travel, namely that it was rotated sideways and, as noted, assisted by tugs. While not dispositive factors, these trappings indicate that the *Athos I* was no longer voyaging, but was configured solely for docking.

To the extent CARCO argues that the sphere of control exercised by it should be used to limit the scope of its duty,[29] we hold that a failure to exercise control over an area is not conclusive in this analysis. The appeal of *The Moorcock* long-ago dispatched this argument.[30] [1889] 14 P.D. 64 (Eng.). The steamship *Moorcock* was invited to be discharged and loaded at a

---

[29] In further support of this position, CARCO cites to *Sonat Marine Inc. v. Belcher Oil Co*., 629 F.Supp. 1319 (D.N.J.1985), *aff'd*, 787 F.2d 583 (3d Cir.1986) (table). That case, however, does not apply on its facts, and uses a wharfinger's assumption of control to *expand*, rather than *limit*, the scope of its liability. Specifically, that wharfinger took the initiative secretly to widen its approach because "it recognized that larger vessels had problems entering the barge berth and required a greater margin of safety." *Id*. at 1322. Insofar as the terminal operator had "assumed sufficient control over that area to attempt to ensure a proper approach to the ship and barge terminal," *id*. at 1327, it was deemed negligent for "fail[ing] to use means adequate[, such as side scans or wire drags,] to ensure that the new area where it thought larger barges could safely go was free of obstructions," *id*. at 1325. Control aside, the District of New Jersey Court also noted that a "safe approach to the berth had to include the additional . . . area." *Id*. at 1326.

[30] That the appeal of *The Moorcock* was operating under a theory of an implied contractual warranty does not reduce its import for purposes of this analysis. [1889] 14 P.D. 64 at 68 (Eng.).

particular wharf where it would be moored alongside the wharfingers' jetty. *Id*. at 64. Although the ship was expected to rest on the bottom of the River Thames at low tide, the particular section of riverbed was not actually under the wharfingers' control. *Id*. at 69. Even so, the Court explained that it "d[id] not follow that [the wharfingers] are relieved from all responsibility. They are on the spot." *Id*. at 70. It continued:

> No one can tell whether reasonable safety has been secured except themselves, and I think if they let out their jetty for use they at all events imply that they have taken reasonable care to see whether the berth, which is the essential part of the use of the jetty, is safe, and if it is not safe, and if they have not taken such reasonable care, it is their duty to warn persons with whom they have dealings that they have not done so.

Id.; see also The Cornell No. 20, 8 F.Supp. 431, 433 (S.D.N.Y.1934) ("However, it is clear that the obligation of the wharfinger is not limited to the area of the land under water actually owned by it. . . . It impliededly [sic] represents to the master of a vessel who is induced to bring his vessel to its wharf that the berth and immediate access to it are reasonably safe for the vessel.").

In addition, insofar as the sphere of responsibility exercised by CARCO is a voluntary assumption of duty, it cannot be relied on to restrict the scope of a port owner's duty as a matter of law. Limiting a wharfinger's responsibility to areas in which it has affirmatively assumed responsibility would allow it to define the scope of its own liability regardless of the port's actual approach. Such a construction plays poorly against a policy that places logic and common

sense over self-serving limitations of liability in the tort context. Moreover, we are not convinced that CARCO was actually precluded from extending its area of responsibility into the Anchorage. The record reflects that permission to it was not required for sonar scans, for example, and the record lacks an indication that CARCO could not have obtained a dredging permit for the Anchorage if it desired to do so.

We conclude that the *Athos I* was well within the approach to CARCO's terminal when the casualty occurred, and that it therefore had a duty to exercise reasonable diligence in providing the *Athos I* with a safe approach.

iii. Potential Breach of Duty to Maintain a Safe Approach

Having determined that the *Athos I* was within its approach when it was damaged and that CARCO therefore owed it a safe approach, did CARCO satisfy that duty by exercising the standard of care required of a reasonable wharfinger under the circumstances? Although "the nature and extent of the duty of due care is a question of law," factual issues predominate here as they do in most negligence litigation. *Redhead v. United States*, 686 F.2d 178, 182 (3d Cir.1982). Thus, we review findings of negligence as factual findings for clear error. *See In re Moran Towing Corp*., 497 F.3d 375, 377-78 (3d Cir.2007); *Andrews v. United States*, 801 F.2d 644, 646 (3d Cir.1986). As noted, there were no findings.

Negligence exists where there was a "fail[ure] to exercise that caution and diligence which the circumstances demanded, and which prudent men ordinarily exercise." *Grand Trunk R.R. v. Richardson*, 91 U.S. 454, 469, 23 L.Ed. 356 (1875). The admiralty

context is no different, requiring "reasonable care under the particular circumstances." 1 Schoenbaum, *supra*, § 5-2, at 253 (citation omitted); *see also Smith*, 173 U.S. at 436, 19 S.Ct. 442 (remarking that wharfingers are "bound to use reasonable diligence" (citation and quotation marks omitted)). In admiralty, the particular duty required under any given circumstance can be gleaned from statute, custom, or "the demands of reasonableness and prudence." 1 Schoenbaum, *supra*, § 5-2, at 253 (citing *Pennsylvania R.R. v. S.S. Marie Leonhardt*, 202 F.Supp. 368, 375 (E.D.Pa.1962), *aff'd*, 320 F.2d 262 (3d Cir.1963)). Of course, "the degree of care which the law requires in order to guard against injury to others varies greatly according to the circumstances of the case." *Richardson*, 91 U.S. at 469-70.

On the facts before us, we are insufficiently informed to delineate the exact standard of care required by CARCO,[31] let alone whether there was a

---

[31] In evaluating the specific nature of this duty, the parties point to no statute on point and our research reveals none. As to custom, it "is only evidence of a standard of care[,] and violation of custom or adherence to it does not necessarily constitute negligence or lack of negligence." *In re J.E. Brenneman Co.*, 322 F.2d 846, 855 (3d Cir.1963) (citations omitted); *Norton v. Ry. Express Agency, Inc.*, 412 F.2d 112, 114 (3d Cir.1969) ("Although not controlling, custom and practice may be shown to establish the standard of care to which the party charged with the wrongful act may be required to conform.").

The District Court also determined that no industry custom would have "put CARCO on notice that it should scan into the Anchorage." *In re Frescati*, 2011 WL 1436878, at *4. It is unclear if this apparent factual finding refers to other River terminals not searching their full approaches, federal waters generally, or Anchorage Number Nine specifically. Unfortunately, a review of the record leaves us similarly adrift. While several trial witnesses testified that they did not know of any Delaware River terminal

breach of that standard (a.k.a. duty). That task rests with the District Court on remand should it need to reach the negligence claim.

iv. Causation

On remand, the District Court will also need to determine whether the failure, if any, to meet the standard of care proximately caused the accident. "Questions of causation in admiralty are questions of fact." *Stolt Achievement, Ltd. v. Dredge B.E. LINDHOLM*, 447 F.3d 360, 367 (5th Cir.2006); *see also In re Nautilus*, 85 F.3d at 116 (reviewing, in admiralty, a district court's determination as to causation for clear error).

The purpose of requiring proximate cause is "to limit the defendant's liability to the kinds of harms he risked by his negligent conduct." 1 Dan B. Dobbs *et al*., *The Law of Torts* § 198, at 681 (2d ed.2011) (citations omitted). Proximate cause is something of a misnomer in that it "is not about causation at all but about the appropriate scope of legal responsibility." *Id*. at 682. Instead, "proximate cause holds that a negligent defendant is liable for all the general kinds of harms he foreseeably risked by his negligent conduct and to the class of persons he put at risk by that conduct." *Id*. at 682-83; 1 Schoenbaum, *supra*, § 5-3, at 260-61

---

taking precautionary action within federal waters, the Chief of Operations Division for the U.S. Army Corps of Engineers suggested that at least one terminal had surveyed the federal waters preceding its berth. *See* DePasquale Test. 104:20-105:13, Oct. 6, 2010. Ultimately, the record is unhelpful on this point because we do not know if any of the terminals on the River had an approach that also traversed federal waters like CARCO's did. Of course, the only relevant consideration for custom would be similarly situated terminals, and we are unable to make any meaningful assessment of industry custom on these facts.

("[T]he injury or damage must be a reasonably probable consequence of the defendant's act or omission.").

CARCO argues that proximate cause is lacking on these facts because the presence of an anchor in the anchorage was not foreseeable, especially by virtue of other ships arriving unharmed in the past. Once again, we decline to resolve this issue on the record before us. CARCO further argues that proximate cause is lacking on the basis that the anchor-dropper was the actual cause of the accident. It is clear, however, "'that there may be more than one proximate cause of an injury.'" *Serbin v. Bora Corp.*, 96 F.3d 66, 75 (3d Cir.1996) (quoting *Davis v. Portline Transportes Mar. Internacional*, 16 F.3d 532, 544 (3d Cir.1994)).

More crucially, the issue is whether the accident would have been prevented had CARCO exercised its duty to act as a prudent wharfinger within the approach. At a minimum, this requires "that the injury would not have occurred without the defendant's negligent act." 1 Schoenbaum, *supra*, § 5-3, at 259. Here, the causation inquiry turns on whether prudent behavior—had it been exercised, a factual inquiry—would have prevented the injury. *See* Dobbs *et al.*, *supra*, § 184, at 620. In light of CARCO's invitation that the *Athos I* arrive drawing 37 feet or less, *see supra* Part IV.C, it may be that the anchor lay sufficiently deep such that it would not have been detected even if CARCO had acted as a prudent wharfinger. Conversely, it could be the case that—even if the 37 feet of contractual clearance were provided—CARCO's duty as a wharfinger required something more. Should this be put in issue, further inquiry must occur as to what diligence was required of a prudent wharfinger, and only then can the District

Court determine whether a failure to implement those procedures proximately caused the accident.[32]

Therefore, because factual issues remain to be resolved if Frescati's negligence claim becomes relevant, we also remand for further proceedings, as necessary, on this claim.

B. Negligent Misrepresentation

Frescati argues that CARCO's failure to inform the *Athos I* of the reduction in maximum draft at its facility's ship dock prior to the vessel's arrival was a negligent misrepresentation. The District Court held otherwise, reasoning that "the area of concern was not the area where the casualty occurred and the draft at the berth was factually irrelevant to the casualty." *In re Frescati*, 2011 WL 1436878, at *5. We reach essentially the same result.

Negligent misrepresentation stems from a failure to exercise reasonable care in supplying incorrect information during the course of a business transaction. *Coastal (Berm.) Ltd. v. E.W. Saybolt & Co., Inc.*, 826 F.2d 424, 428 (5th Cir.1987) (citing *Grass v. Credito Mexicano, S.A.*, 797 F.2d 220, 223 (5th Cir.1986)). The receiving party must rely on that false information and thereby suffer injury. *Id.* at 428-29 (citing same). This formulation, set out by § 552 of the Restatement (Second) of Torts, implicitly incorporates the standard elements of negligence: duty of care, a breach of that duty, injury, and causation. *See J.E.*

[32] We note that the District Court was "not convinced that had the area been scanned the anchor would perforce have been detected. . . ." *In re Frescati*, 2011 WL 1436878, at *4. We interpret the Court's remark as contemplating the effort required to detect the anchor absent an incident, as the anchor was in fact discovered with the use of side-scan technology.

Mamiye & Sons, Inc. v. Fid. Bank, 813 F.2d 610, 615 (3d Cir.1987); 1 Schoenbaum, *supra*, § 5-2, at 252.

CARCO initially explained in its Port Manual that the allowable maximum draft at its Paulsboro facility was 38 feet, but this "may change from time to time and should be verified prior to the vessel's arrival." J.A. at 1095 (CITGO Terminal Regulations for Vessels ¶ 2). On November 22, 2004, four days before the *Athos I* arrived, CARCO's Port Captain Rankine announced internally that "the maximum draft at Paulsboro berth # 1 (ship dock) has been reduced to 36-00 feet." J.A. at 1702. No one informed the *Athos I* of the change (and apparently its personnel did not inquire). This meant that the *Athos I* would have to enter CARCO's port under an exception to the maximum draft, and in any event Port Captain Rankine was comfortable with this because the *Athos I* would not be lying in the shallower area next to its dock that motivated the draft reduction.[33] Rankine Test. 41:22-42:3, Nov. 22, 2010.

On its terms, the reduction was limited to CARCO's ship dock. Although Frescati argues that the *Athos I* would not have berthed at CARCO's facility (its actual ship dock, but not the approach to it through the Anchorage) so early in the rising tide if its crew had known of the reduction in maximum allowable draft,

---

[33] Rankine testified that such exceptions are common in the industry, and that he was not concerned for the *Athos I* because a ship drawing 37'3" had sat through low water just ten days before without harm. Rankine Test. 38:22-23, 41:22-42:9, Nov. 22, 2010. When the trial judge inquired about the rationale for making regular exceptions, Rankine replied that he was required by the guidelines to make the reduction, but that he did not "have any worries about the depth of water in the area where the ship was going to sit." *Id*. at 45:18-25.

this is irrelevant to its decision to enter Anchorage Number Nine—the site of the submerged anchor.

In this context, any misrepresentation about the ship dock is factually irrelevant to the accident because it did not occur at the dock, but rather 900 feet out in the Anchorage. There was no injury sustained that resulted from the failure to note the draft reduction at or immediately adjacent to CARCO's dock. Frescati's negligent misrepresentation claim thus fails on its merits as a matter of law.

VI. Effect of the Government's Settlement With CARCO

In its limited settlement agreement with the Government, CARCO promised not to

> demand that the court reduce or offset the damages awarded to the United States against [CARCO] in the Lawsuit based on evidence that the negligence or fault of the United States in failing to detect, mark and/or remove underwater obstructions to navigation in the navigable waters of the Delaware River caused or contributed to the ATHOS I Incident.

J.A. at 95 (Release ¶ 3.1(b)). It thus asks us to preclude CARCO on remand from raising any equitable defense premised on the Government's regulation of the Anchorage. CARCO responds that it retained unspecified equitable defenses relevant to defending against, *inter alia*, the contractual claims, and that the Government conflates defenses to these claims with violations of CARCO's promise to forbear making

claims against the Government sounding in tort to reduce or offset damages awarded to it.[34]

The Government also argues that the District Court mistakenly denied its earlier motion for summary judgment on CARCO's defense of equitable recoupment,[35] as that defense was really just a disguised attempt for indemnity or contribution payments. After hearing oral argument, the District Court denied the Government's pretrial motion on the ground "that the question of subrogation defenses [by CARCO] is better resolved with the benefit of a full trial record." J.A. at 101. CARCO claims that the Government failed to follow up at trial, and thus waived the issue. We agree, as we see no indication that the Government renewed its argument at trial (or argued before us how the issue has not been waived). Thus, we decline to preclude CARCO from revisiting

---

[34] The Government argues that CARCO has attempted to circumvent this partial settlement agreement by presenting against it negligence claims couched as equitable defenses. CARCO explicitly retained "the right to raise affirmative defenses under any theory or doctrine of law or equity, the right to assert setoff or recoupment and the right to assert compulsory or non-compulsory counterclaims other than a Claim for Contribution or Indemnity. . . ." J.A. at 97 (Release ¶ 4.2). It was further agreed that the partial settlement would have no force as to CARCO's suit with Frescati. *Id*. at 97-98 (Release ¶ 4.3).

[35] Equitable recoupment is "[a] principle that diminishes a party's right to recover a debt to the extent that the party holds money or property of the debtor to which the party has no right." *Black's Law Dictionary*, *supra*, at 618. The competing claims must arise from the "same transaction." *Phila. & Reading Corp. v. United States*, 944 F.2d 1063, 1075 (3d Cir.1991) (quoting *United States v. Dalm*, 494 U.S. 596, 608, 110 S.Ct. 1361, 108 L.Ed.2d 548 (1990)).

any previously raised equitable defense to the Government's subrogation claims.

VII. Conclusion

Although remand is appropriate because the District Court failed to set out separate findings of fact and conclusions of law as required by Federal Rule of Civil Procedure 52(a)(1), our legal conclusions also make it necessary to remand for factual findings.

We conclude that the *Athos I*, and Frescati as its owner, are beneficiaries of CARCO's contractual safe berth warranty. This was an express assurance that CARCO's port would be safe for the *Athos I* within the scope of its invitation—that is, drawing 37 feet or less. Therefore, on remand it will need to be determined whether this amount of clearance was actually provided. This analysis may require inquiries into the arriving draft of the *Athos I* and, if the vessel was drawing more than the agreed-upon depth of 37 feet, the depth and positioning of the anchor.

CARCO's assertion of the named port exception is unavailing. Even if it were eligible on the type of notice given to the *Athos I*, its crew did not have an opportunity to accept a hazard (the anchor) that was unknown to the parties prior to the accident, and the exception is inapplicable.

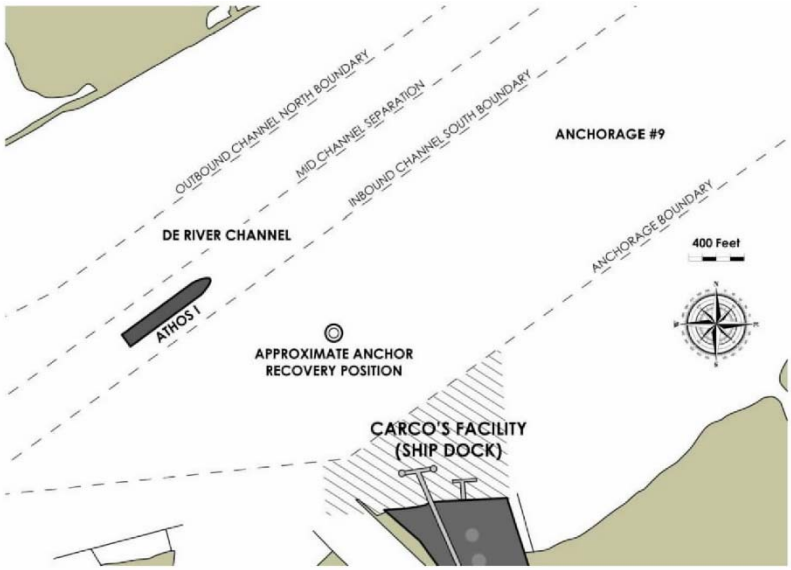
We further conclude that, as this case is primarily a contractual one, analysis of Frescati's negligence claim is required only if the contractual safe berth warranty of CARCO is deemed satisfied. In that event, because we conclude that the accident occurred within the approach to CARCO's terminal, the District Court would need to determine the appropriate standard of care, whether it was breached, and, if so, was that breach a cause of the spill. The negligent

misrepresentation claim, however, fails for lack of factual causation because the alleged misrepresentation applied to an area unrelated to the accident.

Finally, we conclude that the Government has waived its reliance on its partial settlement agreement in challenging CARCO's defenses to liability.

We thus affirm in part, vacate in part the District Court's judgment orders of April 12, 2011 against Frescati and the Government, and remand for further proceedings consistent with this opinion. Further appeals relating to this case will be referred to the current panel.

Appendix A



APPENDIX E

UNITED STATES DISTRICT COURT,
E.D. PENNSYLVANIA

Civil Action Nos. 05-cv-00305-JF, 08-cv-02898-JF

IN RE PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS OWNER OF THE M/T ATHOS I AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE ATHOS I FOR EXONERATION FROM OR LIMITATION OF LIABILITY.

UNITED STATES OF AMERICA

v.

CITGO ASPHALT REFINING COMPANY, CITGO PETROLEUM CORPORATION, AND CITGO EAST COAST OIL CORPORATION.

April 12, 2011

ADJUDICATION

FULLAM, Senior District Judge.

On November 26, 2004, the single-hulled tanker *ATHOS I* was traveling up the Delaware River, nearing the end of a 1900-mile journey from Puerto Miranda, Venezuela to Paulsboro, New Jersey. Approximately 900 feet from the dock of the refinery where it was to discharge its cargo, the tanker struck a submerged nine-ton object that ripped two holes in the hull. Some 200,000 barrels of heavy crude oil spilled into the river, with devastating ecological

results. The United States government launched a multi-agency response to the disaster, at great cost but with marked success. The issue to be decided by this Court, one explored in exhaustive detail during 41 days of a non-jury trial, is whether the companies associated with the refinery, CITGO Asphalt Refining Company, CITGO Petroleum Corporation, and CITGO East Coast Oil Corporation (collectively, "CARCO") may be held responsible for the clean-up costs and the losses associated with the damage to the ship. For the reasons explained below, I conclude that they may not. I have set forth in narrative fashion my findings of fact (as determined by a preponderance of the credible evidence) and conclusions of law.

The Litigation

On January 21, 2005, Frescati Shipping Company, Ltd., as owner of the *M/T ATHOS I*, and Tsakos Shipping & Trading, S.A., as manager of the *ATHOS I* (collectively, "Frescati") filed a "Petition for Exoneration from or Limitation of Liability" pursuant to 46 U.S.C. § 183, in connection with claims by the government or others affected by the spill. In the limitation action, filed at Civil Action No. 05-305, CITGO Asphalt Refining Company filed a claim for damages associated with the spill (as did others), and Frescati filed a counterclaim against all three CARCO entities. The United States government later filed a separate action against CARCO at Civil Action No. 08-2898. Frescati and the government resolved their differences, and many claims were settled through administrative proceedings. The trial before the Court comprised all claims by Frescati and the government against CARCO. As the government's claims are based upon its status as statutory subrogee to the contract-based

claims raised by Frescati, they will not be discussed separately.

The Ship, the Contracts, and the Cargo

The *ATHOS I* was a Panamax-sized tanker[1] with a beam of 105 feet, six inches, and a length of 748 feet. It sailed under the flag of Cyprus and was chartered by Frescati to Star Tankers, Inc., as part of a pooling agreement or time charter. Star Tankers chartered the ship to CARCO with the terms summarized on a "Fixture Recap" dated November 12, 2004. The Fixture Recap incorporated the standard industry form known as "ASBATANKVOY" and included additional terms; it did not specify the port other than as a "safe port" in the United States or the Caribbean. On November 15, 2004, the master of the *ATHOS I*, Captain Iosif Markoutsis, received a "Fixture Note" that confirmed the ship would discharge at a safe port in the United States. The load port was designated as Puerto Miranda, Venezuela.

Star Tankers and CARCO executed a formal "Charter Party," dated November 12, 2004, with an addendum dated December 8, 2004 providing that the laws of the United States govern the contract. The Charter Party (sometimes referred to as a "Voyage Subcharter") was prepared on the standard ASBATANKVOY form and included warranties that the vessel would proceed to the discharging port "or so near thereunto as she may safely get (always afloat) and deliver said cargo," and that the vessel would discharge "at any safe place or wharf" designated by the Charterer, "provided the Vessel can proceed

[1] A Panamax-sized ship is one that is the maximum size able to sail through the Panama Canal.

thereto, lie at, and depart therefrom always safely afloat." Ex. P-357.

Upon arriving at Puerto Miranda, the *ATHOS I* loaded slightly more than 300,000 barrels of heavy crude oil from facilities owned by PDVSA Petroleo, S.A. (the parent company of CARCO). As loading was completed, Captain Markoutsis was presented with the bill of lading for the voyage. The front of the bill of lading form contained spaces for certain information to be filled in for the specific voyage. In the spaces available for the insertion of information concerning the Charter Party, the word "NIL" (meaning "nothing") appeared several times.

The reverse side of the bill of lading included a series of preprinted clauses, one of which specified that English law would govern any disputes. The bill of lading also included language that the cargo was "to be delivered at the Port of Paulsboro, New Jersey, or, so near thereto as the vessel can safely get, always afloat...." Ex. P-375.

Captain Markoutsis signed the bill of lading on November 19, 2004, but also issued two letters of protest dated the same day. One letter noted a discrepancy of 310.53 barrels between the vessel's records and the bill of lading, Ex. P-381, and the other protested that the bill of lading did not record the date of the Voyage Subcharter of November 12, 2004, which the master requested that PDVSA Petroleo record on the original bills of lading, Ex. P-380. The *ATHOS I* left Puerto Miranda on November 20, 2004.

The Site of the Casualty

At approximately 9:02 p.m. on November 26, 2004, the Delaware River docking pilot was on board the *ATHOS I* and tug boats were maneuvering into

position when the ship began to list to the port side and oil was observed in the water. The *ATHOS I*, although damaged, remained afloat; it did not run aground at any point. The cause of the disaster is uncontested to the extent that all parties agree that the *ATHOS I* struck a submerged object. Although the object is always referred to as an anchor, the shank had been removed at some point before the object was deposited in the river, so that it could not be used as a ship's anchor (and, because any identifying marks would have been on the shank, its owner could not be traced). No evidence as to how the anchor came to rest in the river was proffered at trial, but there is supposition that it may have been used as part of dredging operations. There is no evidence that any party to this litigation—Frescati, CARCO, or the government—knew or had reason to believe that the anchor was in the river, although it is well-known that all sorts of objects that present a potential danger to navigation lurk beneath the surface of the waters. The parties stipulated that the anchor had been in the river since at least 2001, as close examination of a sonar scan conducted that year by researchers from the University of Delaware reveals the anchor in approximately the same spot where the *ATHOS I* came to grief, in an area of the Delaware River known as Federal Anchorage No. 9 or the Mantua Creek Anchorage ("the Anchorage").[2]

By federal law, the United States Army Corps of Engineers bears the responsibility of keeping the Anchorage dredged to a depth of 40 feet, lest it become too shallow for commercial navigation. The testimony at trial was to the effect that the government does not

[2] The Anchorage is approximately 2.2 miles long from north to south. N.T. Nov. 10, 2010 at 68 (P. Myhre).

regularly survey the Anchorage for possible hazards to navigation, but that if a hazard is brought to the government's attention it will be removed if feasible, or mariners will be notified of its location.

At trial, each side blamed the other for the casualty. The plaintiffs contend that CARCO is liable in tort under the theories of wharfinger negligence and misrepresentation, because CARCO failed to survey for obstructions into the Anchorage and because CARCO failed to notify the crew of the *ATHOS I* that CARCO recently had determined that the maximum draft (i.e., the distance from the bottom of the ship to the surface of the water) that would be accepted at its berth had been reduced from 38 feet to 36 feet. The *ATHOS I* had a draft of at least 36 feet, six inches, and thus, according to the plaintiffs, had Captain Markoutsis known of the change, the *ATHOS I* either would not have attempted to reach the berth, would have attempted to decrease the ship's draft before moving upriver, or would have scheduled the passage to arrive at high tide. Frescati also argues that CARCO is liable under the Charter Party and the bill of lading on various contract and warranty theories.

The defendants argue that the blame lies with Frescati (because the *ATHOS I* was in poor condition, its draft was significantly more than 36 feet, six inches, and its crew failed to engage in proper voyage planning that would have brought the ship in at the proper stage of the tide); with the government (because the Anchorage is solely its responsibility); or with the unknown former owner of the anchor (because the hazard to navigation was abandoned without notifying anyone).

After carefully considering all of the evidence, I conclude that CARCO is not liable in either tort or contract.

The Tort Claims

Negligence

The government maintains, correctly, that it has no statutory or regulatory duty to scan the Anchorage for hazards to navigation (although it may have assumed a duty through course of conduct, *see Japan Line, Ltd. v. United States*, 1976 AMC 355 (E.D.Pa.1975), *aff'd* 547 F.2d 1161, 1977 AMC 265 (3d Cir.1976)). The absence of a duty on the part of the government, however, does not mean that a duty then falls upon CARCO.

"It is well settled that a terminal operator such as [CARCO] does not guarantee the safety of vessels coming to its docks." *In re Complaint of Nautilus Motor Tanker Co.*, 862 F.Supp. 1260, 1275 (D.N.J.1994) (citation omitted), *aff'd*, 85 F.3d 105 (3d Cir.1996). CARCO does have the duty to furnish a safe berth, including determining whether there are hidden hazards that it could have located with the exercise of reasonable care and inspection. *Id*. CARCO did inspect its berth; beyond that

> "there is no duty on the part of the wharfinger to provide a berth with safe surroundings (other than an entrance and exit) or to warn that hazards exist in its vicinity...." [*Trade Banner Line, Inc. v. Caribbean Steamship Co.*, 521 F.2d 229, 230 (5th Cir.1975)]. The duty to provide a safe berth and approach does not create a duty to make safe "adjacent areas." [*Sonat Marine, Inc. v. Belcher Oil Co.*, 629 F.Supp. 1319, 1327 (D.N.J.1985), *aff'd*, 787 F.2d 583)].

Id. Frescati argues that the location of the casualty was within the approach to the berth because ships berthing at the CARCO terminal naturally would traverse the area where the anchor was found. *See P. Dougherty Co. v. Bader Coal Co*., 244 F. 267, 270 (D.Mass.1917) (a case in which the ship grounded five or six feet from the dock). But the definition of "approach" that Frescati urges the Court to adopt is unreasonably expansive. Although the docking pilot was aboard the *ATHOS I*, the ship was in an area of the Anchorage open for the passage of all ships, not an area used exclusively, or even primarily, by vessels docking at the Paulsboro refinery. From 2000 to 2004, a total of 673 vessels anchored in the Anchorage (including repeat visits from the same vessel), and in 2004 alone, 121 different cargo vessels anchored in the Anchorage. N.T. Nov. 10, 2010 at 47, 53 (P. Myhre). In 2004, 42 vessels docked at CARCO's terminal (including repeat visits from the same vessel). Ex. D-586. Although not all of these ships would have passed through the area that Frescati contends CARCO should have scanned, the volume of traffic illustrates that CARCO had no control over the use of the Anchorage. To accept Frescati's argument would have the effect of potentially expanding the definition of "approach" to the entire Anchorage or to the entire Delaware River. A more reasonable definition of "approach" is the area "immediately adjacent" to the berth or within "immediate access" to the berth. *Western Bulk Carriers, K.S. v. United States*, Civ. S-97-2423, 1999 U.S. Dist. LEXIS 22371, at *19-21, 1999 WL 1427719 (E.D.Cal. Sept. 14, 1999) (citing cases). Under these definitions, the Anchorage was not within the approach to CARCO's berth, and CARCO did not have the legal obligation to survey there.

Frescati also argues that CARCO could have scanned the relevant area of the Anchorage for as little as $10,000, and that such a scan would have detected the presence of the anchor that posed a danger to the *ATHOS I*, a single-hulled tanker that CARCO invited to its berth. Frescati asks the Court to apply the formula first stated by Judge Learned Hand in *United States v. Carroll Towing Co*., 159 F.2d 169, 173 (2d Cir.1947), by weighing whether the burden of adequate precautions is less than the gravity of the injury discounted by the probability that the injury will occur. *See In re City of New York*, 522 F.3d 279, 284 (2d Cir.2008). Judge Hand's formula does not seem to have been accepted in this Circuit, but in any event I do not find it useful here. So far as the evidence at trial shows, neither industry custom nor government regulation would have put CARCO on notice that it should scan into the Anchorage. I am not convinced that had the area been scanned the anchor would perforce have been detected, and although the gravity of the injury is undoubtedly severe, I cannot find that the burden of adequate precautions falls upon CARCO rather than upon the government or upon whoever abandoned the anchor. I thus conclude as a matter of law that CARCO had no duty to scan for hazards within the Anchorage and is not responsible for the harm caused by the anchor.[3]

Misrepresentation

William Rankine, CARCO's Senior Port Captain at Paulsboro in 2004, made the decision to lower the

[3] In so holding, I find unpersuasive Frescati's citation to New Jersey law governing the liability of business owners. This case is governed by maritime principles, and the cases cited are insufficiently analogous.

acceptable draft at the berth from 38 feet to 36 feet on November 22, 2004. Frescati argues that the failure to notify the *ATHOS I* of this change constituted a material misrepresentation upon which the ship's captain relied to the plaintiffs' detriment, because the ship, with a draft of more than 36 feet, six inches, would not have attempted to reach the berth or would have traveled at a different stage of the tide.

The evidence shows that the decisions regarding the timing of the Delaware River passage were made by the *ATHOS I*, not CARCO. The decision to change the draft at the berth was not made in anticipation of the arrival of the *ATHOS I* but because the refinery's "season" was ending (the *ATHOS I* was the last ship scheduled to arrive at Paulsboro until the following spring); the change was an internal one made in expectation of the end of the season, to allow the maintenance crew to perform dredging if necessary. N.T. Nov. 22, 2010 at 16-18, 39, 47 (W.Rankine). The change of the controlling draft did not in any way affect the depth of the water at the berth; nor did it affect the berthing window (the stage of the tide at which ships could berth safely). More important, the decision was based on CARCO's concern over increased silting outside of the area where the ship would float when lying at the berth, an area also outside of the Anchorage. N.T. Nov. 22, 2010 at 42 (W.Rankine). In other words, the area of concern was not the area where the casualty occurred and the draft at the berth was factually irrelevant to the casualty.

Accordingly, even if the change in draft and the noncommunication of it to Frescati constituted a misrepresentation, which I do not find, it would not have been a material misrepresentation and it did not cause the loss. *See Nautilus Motor Tanker Co*., 862

F.Supp. at 1270 ("Since there is no nexus between what did or did not happen in the ship berth and the accident, the shoaling [in the berth] and its cause are irrelevant."). The same is true of any other information that Frescati claims should have been provided by CARCO. To the extent that Frescati attempts to recast these claims as a breach of an express or implied warranty, I find that no warranty was breached, and that the berth was safe for the *ATHOS I*.

The Contract Claims

Frescati (and the government as its subrogee) also claim that CARCO is liable under contract. Both the Charter Party and the bill of lading include what are commonly known as safe port and safe berth warranties, where the designated port or berth is one that the ship can reach, safely afloat. Frescati, which is not a party to the Charter Party, seeks to invoke the safe port and safe berth clauses of that contract as an intended third-party beneficiary. In this case, there was no testimony from representatives of either CARCO or Star Tankers that Frescati was an intended third-party beneficiary of the contract. Star Tankers, not Frescati, assumed the role of owner of the *ATHOS I* for purposes of the voyage. There was also testimony to the effect that Frescati and Star Tankers are engaged in an arbitration in London over Frescati's claims for damage to the *ATHOS I*, persuasive evidence that Frescati has its own contractual remedy, rather than status as a third-party beneficiary. Nor do I find persuasive Frescati's argument that because the Charter Party included a provision that the master would sign bills of lading in the form set forth in the Charter Party (requiring that the shipment would be carried pursuant to the terms of the Charter Party),

Frescati became a beneficiary of the Charter Party or can rely upon the bill of lading.

In maritime cases, a bill of lading may function as a contract or simply as a receipt, depending upon the circumstances. When the bill of lading is negotiated to a third party not subject to the terms of a charter party, the bill of lading may become a contract of carriage. *See Asoma Corp. v. SK Shipping Co*., 467 F.3d 817, 823-24 (2d Cir.2006). Here, the shipper was PDVSA Petroleo, which arguably negotiated the bill of lading to CARCO, but as CARCO was a party to the Charter Party, the bill of lading did not then become a contract. Frescati also argues, however, that Captain Markoutsis signed the bill of lading and endorsed it with the ship's seal, manifesting an intent to sign on behalf the vessel's owners. I do not find that the evidence, including the testimony of Captain Markoutsis, supports this argument.

Moreover, even if Frescati did have the benefit of the safe port and safe berth warranties, I find that CARCO did not breach any contractual warranties.[4] I do not agree with the cases cited by Frescati that would interpret the warranties as an unconditional guarantee, in effect imposing strict liability upon the wharfinger. Instead, I find more persuasive the view of the Court of Appeals for the Fifth Circuit that "a charter party's safe berth clause does not make a charterer the warrantor of the safety of a berth. Instead the safe berth clause imposes upon the charterer a duty of due diligence to select a safe berth."

---

[4] The parties dispute whether English or U.S. law applies. I find that the choice of law does not affect the result, but for purposes of this discussion I have accepted Frescati's position that U.S. law applies.

Orduna S.A. v. Zen-Noh Grain Corp., 913 F.2d 1149, 1156-57 (5th Cir.1990). CARCO fulfilled its duty of due diligence, and I also find that the port and berth were generally safe. Hundreds of vessels anchored in the Anchorage during the time the anchor is known to have been in the river. Although it is not possible to determine exactly how many ships passed over the anchor's location, nonetheless, the volume of commercial traffic that passed without incident through the Anchorage suggests that the port is safe. With regard to the CARCO berth specifically, during 2004, vessels docked at Paulsboro 42 times. Ex. D-586. On 25 occasions, vessels either arrived or departed from the CARCO berth with a draft of at least 36 feet, six inches, without incident. N.T. Nov. 22, 2010 at 16 (W.Rankine). One vessel, the *NEW RIVER*, arrived on November 16, 2004, just days before the *ATHOS I*, with a draft of 36 feet, 11 inches, and departed with a draft of 37 feet, three inches. The *NEW RIVER* completed loading just before low water and sat at the berth through low water without any problem. N.T. Nov. 22, 2010 at 44-45 (W.Rankine). Based on the evidence, I conclude as a matter of law that the port and the berth were safe for commercial tankers with a draft of 36 feet, seven inches, which Frescati maintains was the draft of the *ATHOS I*.

I am also persuaded by CARCO's argument that the named-port exception precludes a finding of liability pursuant to the warranties. Under this doctrine, "[w]hen a charter names a port [or berth] and the master proceeds there without protest, the owner accepts the port [or berth] as a safe port, and is bound to the conditions that exist there." *Bunge Corp. v. M/V FURNESS BRIDGE*, 558 F.2d 790 (5th Cir.1977). Frescati argues that the existence of the anchor was not "reasonably foreseeable" and thus the named port

doctrine does not apply. *See Duferco Int'l Steel Trading v. T. Klaveness Shipping A/S*, 333 F.3d 383, 387 (2d Cir.2003).

I conclude that Frescati was sufficiently familiar with the port. Between April 1, 1998 and December 9, 2004, 14 vessels operated by Tsakos called at the Paulsboro refinery (including the *ARAMIS*, sister ship to the *ATHOS I*)[5] and a total of 70 Tsakos-operated vessels came into the Delaware River. N.T. Nov. 10, 2010 at 45-46 (P. Myhre). Although the anchor itself was not known to Frescati, the existence in general of lost or abandoned objects in the river was well disseminated through notices to mariners. Accordingly, even if Frescati can claim the benefit of the safe port and safe berth warranties, CARCO did not breach the warranties and neither Frescati nor the government can recover in contract.

Notes on Other Evidence

The parties devoted much time at trial to questions that I have found unnecessary to my decision, including the questions of whether the *ATHOS I* violated various laws and regulations such that it was responsible for the casualty; whether the *ATHOS I* had sufficient under-keel clearance (the distance from the bottom of the ship to the riverbed), as determined in part by whether the anchor was in a "flukes up" or "flukes down" position, etc. Because it may be of some use to the parties, I add the following comments. With regard to the position of the anchor, I found most of the expert testimony, particularly the evidence of computer "modeling", unpersuasive. The most useful

[5] Other Tsakos ships referenced during the trial included the *PORTHOS* and the *D'ARTAGNON*.

evidence regarding the anchor's position came from Peter Traykovski, who analyzed sonar scans and concluded that the anchor was lying with its flukes down both in 2001 and after the casualty, which is persuasive evidence that the anchor tended to remain in that position, rather than at a 65° angle with the flukes up. Although it is safe to say that the crew of the *ATHOS I* did not devote the care and attention to preparation of the voyage planning that might have been advisable, I am not persuaded that these errors caused the ship to strike the anchor. After hearing all of the evidence, I am of the opinion that the fault for the casualty lies with the anchor's former owner, who abandoned it in the river without notifying anyone. Finally, although I did not reach the issue of damages, I note that the testimony of the witnesses was compelling with regard to the complexity and difficulty of the oil spill response, and that costs were monitored to the best extent possible under the circumstances.

Conclusion

I have considered all of the arguments in favor of liability against CARCO raised by Frescati and the government, and to the extent that any are not addressed specifically in this adjudication they have been rejected.

Appropriate orders will be entered.

APPENDIX F

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

No. 11-2576

IN RE: PETITION OF FRESCATI SHIPPING COMPANY, LTD., AS OWNER OF THE M/T ATHOS I AND TSAKOS SHIPPING & TRADING, S.A., AS MANAGER OF THE ATHOS I FOR EXONERATION FROM OR LIMITATION OF LIABILITY

No. 11-2577

UNITED STATES OF AMERICA,
Appellant

v.

CITGO ASPHALT REFINING COMPANY; CITGO PETROLEUM CORPORATION; CITGO EAST COAST OIL CORPORATION

Appeal from the United States District Court
for the Eastern District of Pennsylvania

(D.C. Civil Action Nos. 2-05-cv-00305 / 2-08-cv-02898)

Trial District Judge: Honorable John P. Fullam
District Judge: Honorable Joel H. Slomsky*

---

* Judge Slomsky was assigned to this matter following the retirement of Judge Fullam, who presided at trial and ruled on the merits.

Before: McKEE, *Chief Judge*, RENDELL, AMBRO, FUENTES, SMITH, FISHER, CHAGARES, JORDAN, HARDIMAN, GREENAWAY, Jr., VANASKIE, SHWARTZ, and O'MALLEY[**] *Circuit Judges*

PETITION FOR REHEARING *EN BANC*

The petition for rehearing filed by Appellees, having been submitted to the judges who participated in the decision of this Court, and to all the other available circuit judges in active service, and no judge who concurred in the decision having asked for rehearing, and a majority of the circuit judges of the circuit in regular active service not having voted for rehearing by the court *en banc*, the petition for rehearing by the panel and the Court en banc is DENIED.

By the Court,

/s/ Thomas L. Ambro
Circuit Judge

Dated: July 12, 2013

[**] Honorable Kathleen M. O'Malley, United States Court of Appeals for the Federal Circuit, sitting by designation.