
ASYMMETRIC MARITIME COLLISIONS: THE EROSION OF THE COLREGS FAULT DOCTRINE AND THE CASE FOR REGULATORY REFORM

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ABSTRACT

The international collision regulations are founded on equal moral agency, requiring every vessel, regardless of size or technology, to observe identical duties of navigation. This paper argues that the principle of equal moral agency is being systematically displaced by a logic of distributive justice, under which liability increasingly reflects a vessel's technological capacity, economic power, and ability to absorb loss rather than its breach of the rules. Drawing on primary judicial, regulatory, and institutional sources, the paper maps this doctrinal shift in collisions between vessels of starkly unequal size and capability, such as encounters between large merchant ships and small fishing vessels. It advances three contributions. First, it documents a functional convergence between the English causative potency doctrine and Chinese equitable interpretations of fault, both of which fold technological capacity into the apportionment of liability. Second, it introduces the concept of shadow pricing, the adjustment of settlements according to jurisdictional risk and the financial vulnerability of the opposing party, as the mechanism through which distributive justice operates without leaving a judicial trace. Third, it proposes concrete reforms, including international guidance on the special circumstances rule, greater transparency from protection and indemnity insurers regarding settlement ratios, and revised seafarer training in litigation-aware documentation. The paper concludes that technical compliance with the rules of the road is no longer a sufficient condition for legal protection, and that a prudent operator must treat its evidentiary record as the primary instrument of self-protection.

Keywords: asymmetric collisions; collision regulations; distributive justice; shadow pricing; maritime law; causative potency; capacity-based liability.

1. Introduction: The Case for Reform

1.1 The Foundational Premise of the Collision Regulations

The governance of maritime collisions presents one of the most intriguing jurisprudential tensions in contemporary international law. The International Regulations for Preventing Collisions at Sea (“COLREGs”)—a unified code ratified by virtually every flag State—articulate a system of binary fault rooted in the tradition of corrective justice: those who breach the rules bear the loss caused by that breach. COLREGs, Oct.¹ The COLREGs represent the codification of navigational custom stretching back to the Steam Navigation Act 1846, the first legislative instrument to impose penalties on shipmasters who breached collision rules.² The philosophical underpinning of this regime is what Hart and Honoré characterized as corrective justice, under which liability must track wrongdoing rather than the capacity of the defendant to pay.³ Every vessel, whatever its size or technical sophistication, owes identical duties under Rules 5 through 19.

1.2 The Reality of Asymmetric Collisions

The term “asymmetric collision” refers to an incident between vessels with stark disparities in size, technology, or maneuverability, such as an encounter between a merchant ship and a fishing vessel. The realities of such encounters—pitting ultra-large container vessels equipped with voyage data recorders, automatic identification systems, and radar plotting aids against small, unlit fishing skiffs that lack electronic navigation equipment—have made strict rule-symmetry increasingly difficult for courts to sustain. The empirical record reveals a consistent and disturbing pattern. In the South China Sea, the Danish Maritime Accident Investigation Board documented a collision involving a fifteen-hundred-nautical-mile open-water passage through a region densely populated with fishing vessels that do not transmit identification signals.⁴ One dissertation, drawing on data from the Fishery Command Center of the Ministry of Agriculture of China, documents two hundred and sixty-eight recorded collisions between merchant and fishing vessels between 2006 and 2011, resulting in five

¹ COLREGs, Oct. 20, 1972, 1050 U.N.T.S. 16.

² Jiancui Qi, *Ship Collision in Chinese Maritime Law: Legislation and Judicial Practice*, 46 *J. Navigation & Port Rsch.* 99 (2022).

³ H.L.A. Hart & Tony Honoré, *Causation in the Law* (1959).

⁴ Danish Mar. Accident Investigation Bd., *Marine Accident Report on Collision Between Murcia Mærsk and BD-30947-TS on 19 July 2023* (issued Oct. 21, 2025).

hundred and sixty-two deaths or missing persons, with more than ninety-five percent of fishing vessels sinking.⁵ More recent data confirm that the problem has not been abated.⁶

A navigational notice issued by the Panama Maritime Authority underscores this hazard, reporting that a high concentration of fishing vessels in China's coastal waters creates a complex navigational environment and increases the risk of collision.⁷ The notice does not favor fishing vessels; it warns all vessels of the dangers of fishing areas, implicitly acknowledging that the rules alone cannot mitigate these risks.

1.3 The Paper's Objectives

These mortality and economic-loss figures have informed a judicial disposition, most visible in Chinese coastal courts, to protect fishing communities from the full financial consequences of rule violations aboard their vessels, a disposition that operates independently of formal fault analysis. English admiralty law, long considered the paradigm of strict fault-based apportionment, has itself not been immune. In *Bow Spring v. Manzanillo II*, the Court of Appeal upheld a fifty-fifty liability split against a laden chemical tanker that was, by any doctrinal measure, the stand-on vessel entitled to protection.⁸ The reasoning—that the tanker's failure to deploy its superior capacity to reduce speed was as causatively potent as the dredger's failure to keep clear—illustrates the central thesis of this paper: courts increasingly judge a vessel not only by what it did, but by what its superior capacity allowed it to do.

This paper defines capacity-based liability as the allocation of fault according to a vessel's technological, economic, or operational ability to prevent a collision, rather than solely according to its rule violations. The paper proceeds in nine parts.

- Part 2 maps the doctrinal architecture of the collision fault system and identifies the rules most susceptible to asymmetric interpretation.
- Part 3 examines the Chinese maritime law model, drawing on institutional sources and

⁵ Zaicai Yi, Study on Collision Between Fishing Vessels and Merchant Ships Within the China Coastal Waters (2015) (Master's dissertation, World Maritime University (Dalian)).

⁶ Ling Zhu & C. Guedes Soares eds., Trends in Collision and Grounding of Ships and Offshore Structures (2026) (ICCGS 2025 proceedings).

⁷ Panama Mar. Auth., Merchant Marine Notice MMN-09/2026, Navigational Notice for Fishing Areas and China Coastal Waters (Apr. 2026).

⁸ *Bow Spring (Owners) v. Manzanillo II (Owners)* [2004] EWCA Civ 1007, [2005] 1 Lloyd's Rep. 1 (Eng.).

recent case law.

- Part 4 analyzes Bow Spring and the English causative potency doctrine.
- Part 5 surveys the Murcia Mærsk incident as a contemporary operational case study.
- Part 6 addresses comparative jurisprudence and introduces the shadow pricing concept.
- Part 7 proposes operational and institutional reforms.
- Parts 8 and 9 acknowledge the study's limitations and conclude.

2. Doctrinal Architecture: The Erosion of Equal Moral Agency

2.1 The Foundations of Corrective Justice

The philosophical underpinning of the collision regime is corrective justice, under which liability must track wrongdoing rather than the capacity of the defendant to pay.⁹ Every vessel, whatever its size or technical sophistication, owes identical duties under Rule 5 (lookout), Rule 6 (safe speed), Rule 7 (risk of collision), Rule 8 (action to avoid collision), and the situational Rules 9 through 19. This principle of equal moral agency—the notion that a three-hundred-meter container vessel and a ten-meter fishing skiff owe identical duties under the rules—is the architectural foundation of the entire collision liability framework.

2.2 Rules Most Susceptible to Asymmetric Interpretation

2.2.1 Rule 2(b): The Special Circumstances Exception

Rule 2(b) provides that, in construing and complying with the rules, due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved. This provision, originally a narrow safety valve, has been progressively expanded by coastal courts into a general equity clause. The phrase “limitations of the vessels involved” has been read to encompass technological limitations: the inability of an unlit fishing vessel to maintain an electronic watch is increasingly treated as a special circumstance that shifts the burden of avoidance toward the technologically capable merchant

⁹ H.L.A. Hart & Tony Honoré, *supra* note 3.

vessel. The Panama notice, while addressed to seamanship rather than adjudication, reflects the same underlying concern: it directs masters to exercise enhanced vigilance and to treat dense fishing activity as a distinct operational risk, the very factual predicate that courts fold into the special-circumstances analysis.¹⁰ China's own maritime regulator is more explicit still. Its 2021 guidelines on preventing merchant–fishing collisions direct merchant officers to keep clear by a margin of more than one nautical mile from a fishing boat working at low speed, to adhere to a principle of “early, large, wide and clear” avoidance, and they observe that even a slight contact may damage or capsize a fishing boat while the merchant crew remains unaware of it.¹¹ That is a flag- and coastal-State authority openly allocating the heightened burden of avoidance to the larger, more capable vessel—the regulatory analogue of the capacity-based reasoning this paper traces in the courts.

Rule 2(b) is increasingly invoked in asymmetric collisions, not because courts favor one vessel over another, but because operational realities demand it. The notice supports this reading by providing official evidence that flag States recognize the inadequacy of the rules in these scenarios and are issuing supplementary guidance to address the gap. This expansion represents a fundamental shift from the original, narrow safety-valve purpose of Rule 2(b) toward a broader equitable framework that incorporates capacity-based reasoning into collision liability.

2.2.2 Rule 5: Lookout by All Available Means

Rule 5 requires every vessel to maintain a proper lookout at all times by sight and hearing as well as by all available means. The Danish Maritime Accident Investigation Board investigation demonstrates this asymmetric judicial reasoning with exceptional clarity. The investigation found that the fishing vessel did not carry an identification transmitter and was therefore not represented in the traffic picture upon which the container vessel's bridge team relied.¹² Courts confronting such evidence frequently conclude that a merchant vessel's failure to detect a non-transmitting target by radar constitutes a breach of Rule 5, regardless of the equipment's physical limitations in rain clutter. This creates an evidentiary asymmetry: the technologically superior vessel is held to a higher standard of detection precisely because it

¹⁰ MMN-09/2026, *supra* note 7.

¹¹ China MSA, Safety Guidelines for Preventing Collision Between Merchant Ships and Fishing Boats in Chinese Coastal Waters (May 6, 2021), in Oasis P&I Servs., Circular No. 2308.

¹² *Murcia Mærsk*, *supra* note 4.

possesses the means of detection, even when those means are physically incapable of overcoming environmental limitations.

2.2.3 Rule 17: The Stand-On Vessel's Residual Duties

Rule 17(a)(ii) provides that the stand-on vessel may take action to avoid collision by her maneuver alone as soon as it becomes apparent that the give-way vessel is not taking appropriate action. English courts have progressively converted the permissive “may” into a “should” or even a “must.” In *Bow Spring*, the Court of Appeal treated the stand-on vessel's failure to take the obviously appropriate action of reducing speed as a matter attracting a finding of equal causative potency, even though the tanker had committed no rule violation.¹³ This judicial conversion of permissive language into mandatory obligation represents perhaps the most significant doctrinal shift in asymmetric collision law: the stand-on vessel's superior capacity to act, where it fails to deploy that capacity, attracts liability independently of any technical breach by the give-way vessel.

3. The Chinese Maritime Law Model: Distributive Justice in Practice

3.1 Statutory Framework: Article 169 of the Maritime Code

Article 169 of the Maritime Code of the People's Republic of China is China's principal instrument for collision governance.¹⁴ It adopts a proportional fault regime under which, where both vessels are at fault, liability is apportioned in proportion to their respective degrees of fault, and where the degrees cannot be determined, equally. The interpretive flexibility this paper identifies lies in how courts assess the “degree of fault”: in practice they weigh the broader operational context of the encounter, an inquiry capacious enough to absorb the technological and economic disparity between the parties.

Qi observes that the apportionment of collision liability is, in practice, markedly discretionary: the governing provisions are brief while the cases are technically complex, so that judges dividing liability proceed case by case and outcomes can appear arbitrary.¹⁵ The Supreme People's Court has issued judicial interpretations to clarify the application of the

¹³ Maritime Code of the People's Republic of China art. 169 (1992).

¹⁴ Jiancuo Qi, *supra* note 2, at 102–03.

¹⁵ Provisions of the Supreme People's Court on Several Issues Concerning the Trial of Cases of Disputes over Vessel Collision art. 11 (2008); see Qi, *supra* note 2, at 104.

relevant law, and the governing evidentiary provisions have proven significant in cases where a court declined to treat investigation materials as determinative because the relevant witnesses had not appeared in court.¹⁶

3.2 Scale and Trajectory of the Problem

The empirical foundation of this paper's argument is well documented. Drawing on data from the Fishery Command Center of the Ministry of Agriculture of China, one dissertation records two hundred and sixty-eight collisions between merchant and fishing vessels in Chinese coastal waters between 2006 and 2011, with a death toll, including those missing, as high as five hundred and sixty-two—an average of 2.1 deaths per accident—and more than ninety-five percent of the fishing vessels sinking.¹⁷ More recent peer-reviewed analysis confirms that the pattern has continued: one 2025 study drawing on one hundred and nineteen investigation reports of merchant–fishing collisions between 2014 and 2024 identifies the recurring conditions that turn such encounters into casualties.¹⁸ That the problem persists is confirmed by regulators directly. In August 2023, following the lifting of the summer fishing ban, the Shandong Maritime Safety Administration issued a navigation alert identifying nine discrete high-risk areas across the Bohai Sea and Yellow Sea where merchant vessels and fishing boats repeatedly collide, each defined by coordinates and a decade-long incident count.¹⁹ The recurrence of these casualties in fixed, well-mapped locations underscores that they are a structural feature of navigation in Chinese coastal waters rather than a series of isolated accidents.

3.3 Institutional Evidence of Liability Displacement

The most direct institutional evidence of distributive liability outcomes in China comes from a protection and indemnity loss-prevention circular.²⁰ The circular documents a collision off Weihai in 2021 in which the maritime safety investigation found the fishing vessel primarily liable: as the give-way vessel in a crossing situation, it failed to keep a proper lookout and to

¹⁶ Bow Spring, *supra* note 8, at [30].

¹⁷ Yi, *supra* note 5, ch. 2 (citing Fishery Command Center, Ministry of Agriculture of China, and Li, Q.Y., *Collision Liability in Coastal Waters* (2012)).

¹⁸ Liye Zhang et al., *Assessing the Collision Risks of Merchant and Fishing Ships Based on Behavioral Patterns: A Case Study in Qingdao Port*, 329 *Ocean Eng.* 121122 (2025).

¹⁹ Shandong MSA, *Navigation Alert No. SD419/23* (Aug. 29, 2023), in *Oasis P&I Servs.*, Circular No. 2308 (Sept. 5, 2023).

²⁰ China P&I Club, *Loss Prevention Circular LP 21/2022, Claim Handling in Collisions Between Merchant and Fishing Vessels* (2022).

take early and substantial action, instead turning substantially to port and rendering the risk of collision imminent. The merchant vessel, for its part, was on automatic steering making small turns to starboard until it was too late to keep out of the way. Yet the merchant vessel's insurer ultimately bore approximately thirty-nine percent of the settlement, after a tripartite negotiation with fishing-vessel owners and fishery mutual insurance associations under the joint and several liability regime of Article 169. The circular notes explicitly that most fishing-vessel owners are self-employed with inadequate solvency and insurance, making recovery of excess payments practically impossible.²¹

Critically, this outcome was a negotiated settlement, not a court judgment. But settlements occur in the shadow of the law. The circular's own reasoning—that recovery from insolvent fishing-vessel owners is impossible—mirrors the equitable considerations that Chinese courts weigh when assessing degrees of fault under Article 169. The case thus illustrates the mechanism of liability displacement in operation: even where formal fault lies with the fishing vessel, the commercially insured party absorbs loss that it cannot recoup, because the litigation alternative would produce a similar or worse apportionment.

3.4 The Yuan Hang 286 Case

The Guangzhou Maritime Court's decision in *Yuan Hang 286 v. Yue Tai Yu 11838*, affirmed by the Guangdong High People's Court on 28 May 2024, supplies an explicit judicial articulation of capacity as a fault criterion, even though its ultimate economic outcome cuts in a more complicated direction.²² In the early hours of 5 September 2019, the steel dry-cargo vessel collided with the ocean trawling fishing vessel—a vessel of 561 gross tons—in the Taishan waters near Xiachuan Island. The cargo vessel's crew sighted the fishing vessel, sounded an avoiding signal, and trained a searchlight on its bridge, but received no response; unable to avoid, the cargo vessel took the wrong avoiding action of turning to port. The maritime safety investigation concluded that both vessels had failed to keep a proper lookout—the fishing-vessel captain having steered while fatigued—and assessed equal liability.

The court's stated rationale is the doctrinally significant feature. Liability was determined on the basis of the causal force in the formation of the collision, the duty of care,

²¹ China P&I Club, LP 21/2022, *supra* note 20.

²² *Company A v. Company B (the "Yuan Hang 286" / "Yue Tai Yu 11838" collision)* (Guangzhou Mar. Ct. Oct. 28, 2022), *aff'd* (Guangdong High People's Ct. May 28, 2024) (China).

the ability to avoid risks, and the avoiding actions taken.²³ The inclusion of the ability to avoid risks as an enumerated criterion is capacity-based reasoning in explicit judicial language: a vessel's capability to avoid the collision is treated as a distinct component of the fault inquiry, separate from the bare question of which rule was broken. This articulation provides direct evidence that Chinese courts are prepared to fold capacity into their fault-allocation methodology.

The case must, however, be reported in full, because its outcome resists any simple reading that capacity-based reasoning uniformly burdens the larger vessel. Here it was the cargo vessel that sank and became the total-loss claimant. Its loss was gravely aggravated by its own crew's negligence: the watertight doors below deck had been left open and were so poorly maintained that they could not be closed and locked in time, so that water flooded multiple compartments and the vessel capsized. The fishing vessel, for its part, failed to use good seamanship to ease the stricken vessel's flooding and instead disengaged and left the scene, which the court treated as an important cause of the expanded loss. Although collision liability was apportioned equally, the court then applied the limitation of liability for maritime claims available to a small coastal-operations vessel, capping the fishing-vessel owner's liability at approximately 814,563 yuan against a claimed loss of roughly 6.86 million yuan. The larger commercial vessel thus recovered only a fraction of its loss. The case is therefore best cited for the narrow but important proposition that Chinese courts now name the ability to avoid risks as a fault criterion, while candidly acknowledging that statutory limitation of liability can leave the commercial claimant bearing most of its own loss—a result that itself reflects the distributive protection of coastal fishing operators.

3.5 The CMA CGM Florida Case: Distributive Justice in Pollution Liability

Although it arose from a pollution claim rather than a collision-apportionment dispute, the Supreme People's Court's judgments of 20 November 2019 in the litigation following the *CMA CGM Florida* and *Chou Shan* collision illustrate the broader distributive-justice tendency within Chinese maritime adjudication.²⁴ The container vessel and the bulk carrier collided on 19 March 2013 in the East China Sea, rupturing the container vessel's hull and spilling approximately six hundred and ten tonnes of bunker oil; cleanup organizations and the local

²³ Yuan Hang 286, *supra* note 22.

²⁴ Judgments of the Supreme People's Court of the PRC (Nov. 20, 2019), *CMA CGM Florida / Chou Shan* bunker-pollution litigation; see Chen Xiangyong, UK P&I Club (Dec. 20, 2019).

maritime authority then sought to recover their response costs from both vessels.²⁵ Overruling the first- and second-instance courts, the Supreme Court held that, while the leaking vessel remained fully liable for cleanup costs and pollution damage, the non-leaking vessel must also bear liability in proportion to her share of collision fault—fixed here at fifty percent.

The Court's reasoning is what makes the case significant for the present argument. It held that the international bunker-pollution convention addresses only the leaking vessel's liability and does not exclude other liable parties, and that the Maritime Code does not govern a third party's claim against the two colliding vessels; the Court therefore applied the general tort law to impose proportional pollution liability on the non-leaking vessel. (Applying Article 68 of the Tort Law of the PRC rather than the Maritime Code; see SPC Judgments, *supra*) This outcome cannot be explained by corrective justice, under which the vessel that spilled the oil would bear the loss its spill caused. It reflects instead a choice to distribute environmental costs across the parties whose combined fault produced the casualty, a distributive-justice rationale. The case is cited here not as a collision-apportionment precedent but as authoritative evidence of a judicial willingness to depart from strict fault analysis when allocating the costs of maritime risk.

3.6 The Shanghai Maritime Court White Paper

In 2019, the Shanghai Maritime Court published a white paper documenting its handling of two hundred and three collision disputes over the preceding four years, against the backdrop of more than 1.5 million vessel movements annually at the port.²⁶ The white paper confirms that merchant vessels with comprehensive electronic navigation suites are consistently held to a higher evidentiary standard in demonstrating the adequacy of their collision-avoidance measures. This elevated standard is the operational expression of the capacity-based liability model at the level of judicial fact-finding.

4. Bow Spring v. Manzanillo II: The English Pivot

4.1 Facts and the Narrow Channel Encounter

²⁵ Mar. Accident Investigation Branch, Report No. 11/2014, Report on the Investigation of the Collision Between CMA CGM Florida and Chou Shan (2014).

²⁶ Qi, *supra* note 2, at 106 (discussing Shanghai Mar. Ct., Notification of Ship Collision Case Trial and Navigation Safety Status (2019))

The Court of Appeal's decision in *Bow Spring v. Manzanillo II*, handed down by Lord Phillips MR and Lord Justices Clarke and Sedley, assisted by Elder Brother Captain Rodney Chew, represents the most fully reasoned English authority on the distribution of liability in a technologically asymmetric encounter within a restricted waterway.²⁷ The *Bow Spring* was a one-hundred-and-seventy-meter chemical tanker carrying flammable and explosive cargo, fully laden to a draught of approximately eleven meters and physically restricted to the Suez Canal by-pass channel. The *Manzanillo II* was a one-hundred-and-fifteen-meter trailer suction hopper dredger equipped with controllable-pitch propellers and bow thrusters, a vessel of high maneuverability that the laden tanker entirely lacked.

The encounter was governed by Rule 9(d): the *Manzanillo II* was required not to cross the channel if such crossing would impede the tanker's passage. The Elder Brethren advised that even passing half a mile ahead would create a close-quarters situation. The *Manzanillo II* failed to make clear whether she intended to cross, initiating radio contact only after the tanker had already commenced her starboard alteration. The tanker's master, apprehending an imminent crossing, took the vessel hard to starboard and grounded her on the channel margin.

4.2 The Apportionment Decision and the Compliance Paradox

The first-instance judge assessed the contributory fault of the *Manzanillo II* at fifty percent, a finding affirmed by the Court of Appeal. The ratio articulates what this paper terms the compliance paradox: the tanker was the stand-on vessel, her passage was restricted by her draught, and she was entitled under Rule 9(d) to expect clear passage. Yet the court characterized her decision to ground herself as a hurried and ill-considered over-reaction, finding that the obviously appropriate reaction was to take off way rather than to apply hard-to-starboard helm. The court reasoned as follows:

The situation of danger was initially created by the *Manzanillo II* by leaving the *Bow Spring* in doubt about her intentions when the *Bow Spring* could only safely navigate within the channel. However, whilst it was right to have some sympathy with those on the *Bow Spring* when faced with that situation, particularly as a laden tanker, the obviously appropriate reaction was to take off way. The decision to beach the vessel was a hurried and ill-considered over-

²⁷ *Bow Spring*, supra note 8.

reaction. (Bow Spring, *supra*, at [30])

The doctrinal significance is that the tanker's superior size, her loaded condition, and her professional bridge team meant that she possessed the capacity to take a measured response. The failure to deploy that capacity attracted a finding of equal causative potency, not a finding of a rule violation. The case thus establishes in English law the principle that capacity creates duty.

4.3 Evidentiary Architecture: Plots and Their Limits

Lord Justice Clarke reiterated the principle that every plot contains margins of error and that the probative value of a plot lies in its capacity to establish not what happened but what could not possibly have happened.²⁸ This evidential skepticism has significant implications for capacity-based liability claims: the reconstruction of what a merchant vessel could have done with its superior sensor suite is itself subject to epistemic limitations, a qualification that practitioners should deploy defensively in capacity-based litigation.

5. The Murcia Mærsk Collision: A Contemporary Case Study

5.1 The Incident

The collision between the container vessel and the Vietnamese fishing vessel on 19 July 2023, documented in the Danish Maritime Accident Investigation Board final report, constitutes one of the most thoroughly documented contemporary instances of an asymmetric merchant–fishing vessel encounter.²⁹ The container vessel was navigating from Shanghai to Tanjung Pelepas on a fifteen-hundred-nautical-mile open-water crossing of the South China Sea at an optimum speed of 21.4 knots. The fishing vessel carried no identification transmitter and was entirely invisible to the container vessel's traffic picture. The Panama notice, issued in April 2026, addresses precisely this category of hazard, directing masters to exercise enhanced vigilance in fishing-dense waters.³⁰

Between 0600 and 0700 on the day of the accident, heavy tropical rain caused visibility to fluctuate between approximately three nautical miles and 0.05 nautical miles. At the time of

²⁸ *Bow Spring*, *supra* note 8, at [32] (citing *The Pelopidas* [1999] 2 Lloyd's Rep. 675 and *The Statue of Liberty* [1971] 2 Lloyd's Rep. 277).

²⁹ *Murcia Mærsk*, *supra* note 4.

³⁰ Panama MMN-09/2026, *supra* note 7.

collision, the bridge team estimated visibility at 0.25 nautical miles, while the investigators calculated the visual sighting range of the fishing vessel at between 0.6 and 0.7 nautical miles.³¹

5.2 Evidentiary and Operational Asymmetry

The investigation reveals multiple layers of asymmetry that map directly onto the capacity-based liability concerns identified in this paper.³²

Invisibility of non-transmitting vessels. The traffic heatmap generated for the investigation reflected only traffic from vessels actively transmitting identification signals; non-transmitting vessels were not represented. The actual traffic complexity was materially greater than what the bridge team could perceive. The Panama notice explicitly warns masters of this hazard, urging enhanced vigilance in areas with known high concentrations of non-transmitting fishing vessels.

Cognitive load and radar filter suppression. The chief officer, serving as officer of the watch, relied on the S-band radar as the primary anti-collision tool given the limited visibility; his attention was focused on two targets flagged as hazardous by their low closest-point-of-approach and time-to-closest-approach, while the fishing vessel's radar echo never appeared, likely weak and filtered out through a combination of the wooden hull's poor reflectivity, aspect, sea state, and the sea- and rain-clutter filters then in automatic mode. The merchant vessel's superior sensor suite did not guarantee detection; in heavy rain clutter it may have suppressed the weak echo entirely.

Normalized operational trade-offs. The investigators found that maintaining the planned speed—close to the ship's maximum—in high-traffic conditions had become a normalized practice shaped by schedule pressure, and that the radar's collision-alarm threshold had been reduced from the procedurally required one nautical mile to half a nautical mile, most likely to suppress frequent alarms in dense traffic. The master's own threshold for being called in reduced visibility had likewise been set lower than other masters used, the higher limit being regarded as excessively disruptive. This organizational normalization of deviation is precisely the pattern a capacity-based court treats as an elevated failure of the duty of care: the more capable the vessel and the more routine the shortcut, the heavier the causative weight attached

³¹ *Murcia Mærsk*, supra note 4.

³² *Murcia Mærsk*, supra note 4.

to it.

5.3 Collision Regulation Implications

The investigators found that both vessels were navigating in an area of restricted visibility caused by heavy rain showers and that, although the rules prescribed adjusting to a safe speed and sounding the fog signal, both vessels maintained speed and did not sound the signal. (DMAIB Report, *supra*) The apparent symmetry of fault under Rules 6, 19, and 35 is disrupted by the capacity-based analysis: the container vessel's possession of a data recorder, radar plotting aid, and identification system means that her failure to maintain a safe speed in restricted visibility in a fishing-dense area will attract higher causative potency than the same failure by an unequipped fishing vessel.

The author reads the Panama notice as tacit flag-State recognition that the rules alone cannot fully address the risks of modern asymmetric collisions. (Panama Mar. Auth., Merchant Marine Notice MMN-09/2026, Navigational Notice for Fishing Areas and China Coastal Waters (Apr. 2026)) The notice itself confines its terms to seamanship: it urges masters to maintain a proper lookout, to exercise enhanced vigilance in dense fishing areas, to make full use of available navigational equipment, and to consider the limited maneuverability and possible unpredictable behavior of fishing vessels. It makes no statement about liability or fault allocation. Yet its very issuance—a flag State relaying a coastal State's fishing-area warnings and urging that the associated risks be built into safety-management systems—aligns with the paper's distributive-justice argument: liability and risk allocation are already shifting from a purely fault-based model toward one that accounts for operational realities. The notice does not favor fishing vessels; it warns all vessels. That neutrality is itself telling, implicitly acknowledging that the rules alone cannot mitigate these risks and that supplementary guidance is necessary to fill the gap.

No judicial decision has yet been rendered in this case. The analysis is predictive, illustrating how a court applying Bow Spring logic would likely assess liability.

6. Comparative Jurisprudence and the Shadow Pricing Mechanism

6.1 The English Standard: *Evergreen Marine v. Nautical Challenge*

The Supreme Court's decision in *Evergreen Marine v. Nautical Challenge* confirmed

that the crossing rules apply even to a vessel drifting rather than proceeding under power.³³ The vessel was held to be the stand-on vessel by relative bearing, not by propulsive state. The court also confirmed that stand-on status does not immunize a vessel from causative fault findings: the vessel's excessive speed and poor lookout were held independently causatively potent contributions to the collision. Compliance with stand-on status is a necessary but insufficient condition for immunity from liability. This conclusion reinforces the case for the training reforms proposed below, since excessive speed and poor lookout are preventable through better bridge practices.

6.2 The United States: The Pennsylvania Rule

United States admiralty courts do not publish aggregate apportionment statistics by vessel type. The doctrinal architecture of the Pennsylvania rule nonetheless creates a structural framework that functionally disadvantages the technically compliant vessel in a manner analogous to capacity-based reasoning.³⁴ Under that rule, a vessel in violation of a navigational statute intended to prevent collisions bears the burden of proving not only that its transgression was not a contributing cause, but that it could not have been a cause, a burden most vessels fail to discharge. After the Supreme Court adopted proportional comparative fault in place of the old divided-damages rule, the Pennsylvania presumption survived.³⁵ The result is that a merchant vessel with a full sensor suite and a certified crew, if it commits any statutory violation, bears the burden of proving that the violation could not have contributed, an elevated-duty regime.

6.3 The Evidentiary Silence of Settlements: Shadow Pricing

A common objection to the claim of a doctrinal shift is the limited number of published judgments explicitly applying capacity-based reasoning. This objection overlooks the institutional reality that the vast majority of collision claims settle before trial. Under the traditional fault-based model, settlement ratios would track formal apportionment rules. Under the emerging distributive model, settlements are driven by differential bargaining power arising from insurability, solvency, and anticipated judicial sympathy for vulnerable parties.

³³ *Evergreen Marine (UK) Ltd. v. Nautical Challenge Ltd.* [2021] UKSC 6.

³⁴ *The Pennsylvania*, 86 U.S. (19 Wall.) 125 (1873).

³⁵ *United States v. Reliable Transfer Co.*, 421 U.S. 397 (1975).

The loss-prevention circular provides rare documented evidence of what this paper terms shadow pricing: the adjustment of settlement valuations according not only to the merits of a claim but also to jurisdictional risk and the perceived financial vulnerability of the opposing party.³⁶In the Weihai collision, the fishing vessel bore primary fault, yet the merchant vessel's insurer covered approximately thirty-nine percent of the settlement—the insurer's own stated rationale being that most fishing-vessel owners are self-employed and lack the solvency and insurance to satisfy a recourse claim for the excess. The insurer proactively brought fishing-vessel owners and fishery mutual insurance associations into a three-party negotiation, achieving a faster and cheaper resolution than litigation would have produced, and without exposure to non-recoverable payment.

Such settlements leave no judicial trace. They are nonetheless the empirical signature of capacity-based liability in operation. The scarcity of published judgments is therefore not a weakness of the thesis but a predicted consequence of it. Protection and indemnity insurers internalize legal risk into their commercial strategies, and their settlement behavior confirms that the doctrinal shift has been recognized and priced by key stakeholders. The Panama notice is consistent with this analysis at the flag-State level: although it speaks only to seamanship and says nothing of settlement practice, its insistence that operators build dense-fishing-area risk into their safety-management systems reflects an institutional acceptance that these encounters demand treatment beyond bare rule compliance. (Panama Mar. Auth., Merchant Marine Notice MMN-09/2026, Navigational Notice for Fishing Areas and China Coastal Waters (Apr. 2026))

7. Operational Consequences and Reform Proposals

7.1 Documentation Imperatives for Watchkeepers

The displacement of the pure fault doctrine has created a landscape in which compliance with the rules is a necessary but insufficient condition for legal protection. The following documentation practices are essential for capacity-based evidentiary protection: electronic chart playback logs demonstrating safety contours and anti-grounding parameters; radar plotting logs showing continuous target tracking with evidence of active management of clutter filters; data-recorder timestamps demonstrating proactive helm and engine orders before

³⁶ China P&I Club, LP 21/2022, *supra* note 20.

a close-quarters situation develops; radio and signaling records documenting all attempts to establish communication; and safety-management records confirming that restricted-visibility protocols were activated appropriately.

The loss-prevention circular adds that, after a collision with a fishing vessel, the commercial vessel should actively engage with fishery-management authorities from the outset of claim handling, because the absence of such engagement is consistently interpreted by courts as evidence of indifference to the fishing community's interests.³⁷ The Panama notice reinforces this imperative by urging masters to maintain proactive documentation of all navigational decisions in fishing-dense areas.³⁸

7.2 Reform Proposals

1. **Regulatory guidance on Rule 2(b).** The International Maritime Organization should issue a formal circular clarifying the conditions under which the special-circumstances exception may be invoked to justify proactive action by a stand-on vessel in an asymmetric encounter, addressing the level of technological disparity that constitutes a special circumstance, the minimum threshold of perceived risk that justifies deviation from Rule 17, and the documentation a vessel must produce to demonstrate the bona fides of its departure. The Panama notice provides a practical template, demonstrating how flag States can operationalize these principles through navigational warnings.
2. **Insurer transparency.** Protection and indemnity insurers should publish anonymized settlement-ratio data categorized by coastal-State jurisdiction and by the vessel-type asymmetry of the collision. Such data would allow operators to quantify the jurisdictional risk premium and would create market incentives for enhanced collision-avoidance practices.
3. **Educational and training reform.** Seafarer-training conventions should incorporate litigation-aware bridge-logging practices, post-collision inquiry simulations using real data-recorder material, and jurisdictional-risk awareness training. The practical recommendations in the Panama notice should be incorporated into model courses as

³⁷ China P&I Club, LP 21/2022, *supra* note 20.

³⁸ Panama MMN-09/2026, *supra* note 7.

mandatory elements for masters navigating fishing-dense waters.

4. **Reform of the Chinese Maritime Code.** Revision of the Maritime Code is formally on the legislative agenda. The revision process offers an opportunity to introduce a structured proportionality assessment for asymmetric collisions, providing greater predictability for commercial operators while preserving the court's ability to account for genuine capacity and vulnerability factors.

8. Limitations

This paper has several limitations that should be acknowledged. First, aggregate statistical data on liability apportionment broken down by vessel type—such as the proportion of cases in which courts assign majority liability to the merchant vessel in merchant–fishing collisions—is not published in any court white paper or official judicial database accessible to this research. The argument therefore rests on doctrinal analysis, case studies, and institutional evidence rather than on comprehensive statistics.

Second, the cases analyzed may be subject to selection bias, because courts publish notable cases precisely because they are novel or establish new principles. The absence of a systematic census of all collision judgments in any jurisdiction means that the paper demonstrates an emerging trend rather than a universal or complete displacement of corrective justice.

9. Conclusion

This paper has argued that maritime collision law is undergoing a permanent, if largely uncodified, shift from a purely rule-based fault model to a hybrid system in which fault and capacity are jointly determinative of liability apportionment. The equal moral agency of the rules has been progressively displaced by the pragmatic logic of distributive justice.

In Chinese coastal courts, capacity-based reasoning operates through the assessment of degrees of fault under Article 169, through the joint and several liability regime for personal injury, and through the structural impossibility of recovering excess payments from insolvent fishing operators. The mechanism of liability displacement is the insurer's absorption of loss that formal fault analysis would not assign to the commercial vessel, a process of shadow pricing that leaves no judicial trace.

In English admiralty law, *Bow Spring* establishes in binding authority that a stand-on vessel's superior capacity to take a measured response, where it fails to deploy that capacity, attracts equal causative potency to the vessel that initiated the dangerous situation. *Evergreen Marine* confirms that compliance with stand-on status is necessary but insufficient.

In the contemporary operational reality documented by the Danish Maritime Accident Investigation Board and the Panama notice, the structural gap between a vessel's technological capacity and its actual ability to detect non-transmitting targets in restricted visibility creates an evidentiary liability exposure that no amount of formal compliance can fully address. The notice's practical guidance represents a flag-State admission that the rules alone are inadequate.

For the modern commercial mariner and the institutions that govern, insure, and adjudicate maritime commerce, the implication is clear: technical compliance with the rules of the road is no longer a sufficient condition for legal protection. Liability increasingly turns on what a vessel's superior capacity allowed it to do, and the failure to deploy that capacity will attract findings of causative potency that redistribute loss regardless of formal compliance. Until legislative and regulatory reform restores a degree of doctrinal predictability, the prudent operator must treat its evidentiary record as the primary instrument of legal self-protection.

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References

Primary Sources

Convention on the International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 1050 U.N.T.S. 16.

Bow Spring (Owners) v. Manzanillo II (Owners) [2004] EWCA Civ 1007, [2005] 1 Lloyd's Rep. 1 (Eng.).

Evergreen Marine (UK) Ltd. v. Nautical Challenge Ltd. [2021] UKSC 6 (appeal taken from Eng.).

The Pennsylvania, 86 U.S. (19 Wall.) 125 (1873).

United States v. Reliable Transfer Co., 421 U.S. 397 (1975).

Company A v. Company B & XX Insurance Co. (the “Yuan Hang 286” / “Yue Tai Yu 11838” collision) (Guangzhou Mar. Ct. Oct. 28, 2022), aff'd (Guangdong High People's Ct. May 28, 2024) (China).

Judgments of the Supreme People's Court of the PRC (Nov. 20, 2019), CMA CGM Florida / Chou Shan bunker-pollution cost-recovery litigation (China).

Maritime Code of the People's Republic of China art. 169 (1992) (China).

Danish Maritime Accident Investigation Board, Marine Accident Report on Collision Between Murcia Mærsk and BD-30947-TS on 19 July 2023 (issued Oct. 21, 2025).

Marine Accident Investigation Branch, Report No. 11/2014, Report on the Investigation of the Collision Between CMA CGM Florida and Chou Shan (2014).

Shandong MSA, Navigation Alert No. SD419/23 (Aug. 29, 2023), reproduced in Oasis P&I Services, Circular No. 2308 (Sept. 5, 2023).

China MSA, Safety Guidelines for Preventing Collision Between Merchant Ships and Fishing Boats in Chinese Coastal Waters (May 6, 2021), translated in Oasis P&I Services, Circular No. 2308 (Sept. 5, 2023).

Panama Maritime Authority, General Directorate of Merchant Marine, Merchant Marine Notice MMN-09/2026: Navigational Notice for Fishing Areas and China Coastal Waters (Apr. 2026).

Secondary Sources

China P&I Club, Loss Prevention Circular LP 21/2022, Claim Handling in Collisions Between Merchant and Fishing Vessels (2022).

Chen Xiangyong, Collision Between “CMA CGM Florida” and “Chou Shan”: PRC Supreme Court Rules That Non-Spilling Ship Is Liable, UK P&I Club (Dec. 20, 2019).

H.L.A. Hart & Tony Honoré, Causation in the Law (1959).

Jiancuo Qi, Ship Collision in Chinese Maritime Law: Legislation and Judicial Practice, 46 J. Navigation & Port Rsch. 99 (2022).

Zaicai Yi, Study on Collision Between Fishing Vessels and Merchant Ships Within the China Coastal Waters (2015) (Master's dissertation, World Maritime University (Dalian)).

Ling Zhu & C. Guedes Soares eds., Trends in Collision and Grounding of Ships and Offshore Structures (2026) (proceedings of ICCGS 2025, Shanghai).