

**REPLY BY THE BRAZILIAN MARITIME LAW ASSOCIATION
("ABDM") TO THE CMI QUESTIONNAIRE OF MARCH 2017 ON
THE STUDY RELATING TO UNMANNED SHIPS**

1 - National law

1.1 - Would a "cargo ship" in excess of 500 grt, without a master or crew onboard, which is either controlled remotely by radio communication? controlled autonomously by, inter alia, a computerised collision avoidance system, without any human supervision constitute a "ship" under your national merchant shipping law?

ABDM Comments:

Law 9.537 / 97, which deals with the safety of waterway traffic in waters under national jurisdiction, says: "ship is" any construction, including floating platforms and, when towed, fixed, subject to registration in the maritime authority and susceptible of Moving in water, by their own means or not, carrying people or cargo"(article 2, V).

Decree no. 15,788 of 08/11/1922, referring to the naval mortgage, in its art. 3º considers "a ship as any nautical construction intended for high sea navigation, large or small cabotage, appropriate to maritime and inland waterway transport".

Therefore, the national law does not define a ship taking into account the fact of having it crew or not. The definition refers to the thing. It does not take into account the question of whether or not Master and crew aboard.

It should be noted, however, that the ship must be adequately manned (Law 9,537 / 97, articles II (Crew) and IV (Master) for navigation, transportation of persons or cargo.

1.2 - Would an unmanned "ship" face difficulty under your national law in registering as such on account of its unmanned orientation?

ABDM Comments:

Law 9774 of 12/21/98, which amends Law No. 7,652 of February 3, 1988, which provides for the Registry of Maritime Property, provides in its Article 1:

Article 1 - The following provisions of Law No. 7,652 of February 3, 1988, which provides for the Registration of Maritime Property, shall be in force with the following wording:

"Article 3. Brazilian vessels, except those of the Navy, shall be registered with the Captaincy of the Ports or subordinate body, in whose jurisdiction the owner or shipowner is or where the vessel is to be operated.

Single paragraph. Registration of the property in the Maritime Court shall be compulsory if the vessel has a gross tonnage greater than one hundred tons for any type of navigation. "

The NORMAM (Maritime Authority Standard) 01, chapter 2, section I, item 205, states:

0205 - INSCRIPTION AND REGISTRATION PROCEDURES

The registration procedures will depend on the size of the vessel, considering for this purpose the respective gross tonnage (AB).

B) Vessels with GT greater than 100

Vessels of this size are required to register with the Maritime Court (MC). In order to register, the interested party must present the documents listed on the website of the MC.

In order for the vessel to be registered, it is necessary to comply with what is established in NORMAM (Maritime Authority Standard) 01, which in its chapter I, Section I deals with the Safe

Manning of vessels or platforms, providing that:

"0101- APPLICATION

Every vessel or platform for its safe operation shall be provided by a minimum number of crewmembers, associated with a qualitative distribution, referred to as the safety crew whose model is set out in Annex 1a.

The safety crew differs from the Maximum crew. Capacity is the maximum number of persons authorized to embark, including crew members, crew members, passengers and non-crew members. "

In accordance with our legislation, the Brazilian Maritime Authority shall regulate the absence of crew on ships as provided in art. 3 of NORMAN 01:

"Art. 3 ° The Maritime Authority shall promote the implementation and enforcement of this Law, with the purpose of ensuring the safeguarding of human life and the safety of navigation, in the open sea and inland waterways, and the prevention of environmental pollution by vessels, platforms Or their support facilities;

It is the responsibility, in our assessment and in the wake of the security required by law, to carry out the analyzes and changes necessary to bring the NORMAMs into line with the specific situation of unmanned ships, with or without remote shore-based equipment, if applicable, to effect of vessel registration.

1.3 - Under your national law, is there a mechanism through which, e.g. a Government Secretary may declare a "structure" to be a "ship" when otherwise it would not constitute such under the ordinary rules?

ABDM Comments:

We understand that the question is whether there is a mechanism in our legislation that allows a body of the Executive Branch (Ministry, Regulatory Agency, Secretariat, etc.), at its discretion, to declare that a structure is considered / classified as " Ship, "even when it is not so considered by the ordinary law.

In response, we inform you that in a first examination, we do not think that there is a legal mechanism in Brazil that allows Brazilian authorities, at their discretion and according to their criteria of convenience and opportunity, to consider "structures" as "ships" for legal purposes.

1.4 - Under your national merchant shipping law, could either of the following constitute the unmanned ship's "master"?

- **The chief on-shore remote-controller**
- **The chief pre-programmer of an autonomous ship**
- **Another `designated' person who is responsible on paper, but is not immediately involved with the operation of the ship**

ABDM Comments:

Law 9,537 / 97, which deals with the safety of waterway traffic in waters under national jurisdiction, establishes, in article 2 § IV - *Master - crewmember responsible for the safe operation and maintenance of vessel, Cargo, crew and other persons on board;*

Therefore, it is necessary to change Law 9537/97 to accommodate a new concept of Master of unmanned ships, and consequently the revision of NORMAM (Maritime Authority Standard) that deals with the issue.

1.5 - Could other remote-controllers constitute the "crew" for the purposes of your national merchant shipping laws?

ABDM Comments:

Law 9,537 / 97, which deals with the Safety of Waterway Traffic in waters under national jurisdiction, establishes, *Article 2 § II - Seafarer - anyone with a certificate issued by the maritime authority to operate vessels in a professional capacity;*

NORMAM 13 (Maritime Authority Standard) has the purpose of "Establishing norms of procedures related to the entry, registration and career of seafarers belonging to the 1st, 2nd, 3rd, 4th, 5th and 6th Seafarers Groups".

Therefore, a change in Law 9537/97 is required to accommodate a possible new concept of crew of unmanned ships, on shore or not, and consequently the revision of relevant NORMAM (Maritime Authority Standard).

2 - United Nations Convention on the Law of the Sea, 1982 (UNCLOS)

2.1 - Do you foresee any problems in treating unmanned ships as "vessels" or "ships" under the Law of the Sea in your jurisdiction (i.e. that such. ships would be subject to the same rights and duties such as freedom of navigation, rights of passage, rights of coastal and port states to intervene and duties of flag states) in the same way as corresponding manned ships are treated?

ABDM Comments:

Brazilian law does not make difference between vessel or ship. Normally vessel is defined as any construction, including floating platforms and, when towed, fixed, subject to registration in Maritime Authority and susceptible to move in water, by own means or not, carrying persons or cargoes as statued in NORMANS (Maritime Authority rules) and LESTA (safety law in aquatic transportation n 9537/1997) and Brazilian Commercial code

Ship is a term normally used in shipping industry. This lack of definition is seen in many convention for instance the 1910 Collision Convention, the 1910 Salvage Convention, the 1952 Ship Arrest Convention, the 1999 Ship Arrest Convention, the 1926 Convention on Maritime Liens and Mortgages, the 1993 Convention on Maritime Liens and Mortgages and the LLMC Convention

Other convention as MARPOL Convention defines a 'ship' as 'a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms'.

In the 2005 SUA Convention (Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation) the ship is defined as 'a vessel of any type whatsoever not permanently attached to the sea-bed, including dynamically supported craft, submersibles, or any other floating craft'.

The question here is to study if an unmanned (without captain and crew) ship or vessel would be still considered a ship by Brazilian law

In Maritime law one of the most important principles is the link to a flag state to define its nationality and jurisdiction on board. If it is an unmanned ship, it is not yet defined how this link will occur and how state will be able when the vessel is navigating to exercise his power.

In Brazilian commercial code the figure of captain is very present in commercial maritime code, and according to it the captain is responsible for all that happens in his ship -seaworthiness - cargoes, - crew - discipline (art 501) and for registration of the vessel it is mandatory to give the name of the captain and crew (art 467)

In our point of view the issue will be, as already mentioned, about the link with the flag state.

STCW rules, as well crew certification must be applied to on shore controller. In Brazil the responsible for STCW maritime training and Certification is Brazilian Navy. Brazilian Navy is also responsible for Maritime Safety including port states control ruled by LESTA and NORMAMS.

In innocent passage according to Brazilian law and Normam 4 item 0127, vessels don't need transit authorization but still can be asked to present Conventions certificates. This rule certainly will

have to be changed in case of unmanned ships That rule can be difficult to attend by operators on shore, as well as Port State Control Rules, because no one will be on board to present them to maritime authority.

No one will be on board to receive Port State controllers, neither to provide the attendance of eventual demands of issues of vessel found in inspection. Therefore, all the issues will have to be transmitted to controller on shore to be addressed.

Unmanned ships will clearly change all the rules concerning safety of navigation and the role of man in shipping industry.

2.2 - Paragraphs (3) and (4) of UNCCOS Article 94 include a number of obligations on flag states with respect to the manning of such ships. Do you think that it is possible to resolve potential inconsistencies between these provisions and the operation of unmanned ships without a crew on board through measures at IMO (under paragraph (5) of the same Article) or do you think other measures are necessary to ensure consistency with UNCLOS. If so, what measures?

ABDM Comments:

Unclos art 94.3 establishes some items to ensure maritime safety as follow:

Article94 Duties of the flag State

3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, *inter alia*, to:

(a) the construction, equipment and seaworthiness of ships;

(b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;

(c) the use of signals, the maintenance of communications and the prevention of collisions.

4. Such measures shall include those necessary to ensure:

(a) that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;

(b) that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship

We understand that this article expresses a contradiction between unmanned ship and vessel, particularly item 3 b) and 4 b) when refers about manning of ship and training of crew and that each ship needs a master and officers who possess appropriate qualification.

One more time the question is to know who will be the master of the vessel. Unless we consider that the Master and crew does not have to be on board. Anyway the controller on shore will need the same certification that requires a Captain nowadays in STCW, including sea time on board of a ship.

This time on board (12 months for a Marine pilot for example) could be replaced by an aptitude test, but, many adaptation must be addressed.

Unmanned ship represent a disruption of all traditional Maritime and Marine knowledge and safety and must be considered all the consequences of this transformation in maritime shipping socially, economically and humanously speaking.

3 - IMO Conventions —The International Convention for the Safety of Life at Sea (SOLAS) 1974 (as amended) -

3.1 - Does your national law implementing the safe manning requirement in Regulation 14 of Chapter V of SOLAS require at least a small number of on board personnel or does the relevant authority have the discretion to allow unmanned operation if satisfied as to its safety?

ABDM Comments:

In the scope of Brazilian Administrative Law, which enshrines all the norms related to maritime administration and authority, naval inspection, functions and activities of the administrative organs, created in the public interest, it Complementary Law 97/99, which in its article 17, sole paragraph, defines the Navy Commander as the Brazilian Maritime Authority.

The competence of the Maritime Authority is defined in the Law on Safety of Waterway Traffic (Law 9537/97-Lesta), regulated by Decree 2596/98 (RLesta), which gives it competence to issue the so-called NORMAMs, which are the instrument through of which the Maritime Authority exercises its normative competence envisaged in Lesta.

Among these standards, we have the NORMAM (Maritime Authority Standard) 01 that establishes rules for navigation in the open sea.

In its Chapter I, Section I, the NORMAN 01 deals with Minimum Safe Crew of the vessels or platforms, which reads:

"0101- APPLICATION

Every vessel or platform for its safe operation shall be provided by a minimum number of crewmembers, associated with a qualitative distribution, referred to as the safety crew whose model is set out in Annex 1a ".

Accordingly, and in accordance with our legislation, the Brazilian Maritime Authority shall regulate the absence of crew on ships as provided in art. 3 of NORMAN 01:

"Art. 3 ° The Maritime Authority shall promote the implementation and enforcement of this Law, with the purpose of ensuring the safeguarding of human life and the safety of navigation, in the open sea and inland waterways, and the prevention of environmental pollution by vessels, platforms Or their support facilities;

It is the responsibility, in our assessment and in the wake of the security required by law, to carry out the necessary analyzes and changes to adapt the NORMAMs to the specific situation of unmanned ships, with or without remote shore-based control teams, if applicable.

3.2 - Regulation 15 of SOLAS Chapter V concerns principles relating to bridge design. It requires decisions on bridge design to be taken with the aim of, inter alia, "facilitating the tasks to be performed by the bridge team and the pilot in making full appraisal of the situation...". In the contest of a remote controlled unmanned ship, could this requirement be

satisfied by an equivalent shore-based facility with a visual and aural stream of the ship's vicinity?

ABDM Comments:

As stated in CMI International Working Group position paper on unmanned ships, item 6, "The absolute priority in the regulation of unmanned ships is safety ... It is not realistic to expect regulators or the broader shipping community to tolerate a lower standard.

Therefore, replacing a bridge of a modern ship of today with hundreds of advanced technology equipment such as ECDIS, Conning Displays, thrusters, etc., all operated and monitored by the intellectual and cognitive ability of humans, by an equivalent remote ground station, must, at least, have the same level of safety as exists.

In particular, there must be the ability to simultaneously monitor various data, such as ship's position, speed, environmental conditions, dynamics of ship movement, etc. This is even more important in scenarios of entry and exit of ports, berthing and unberthing.

It is not yet clear whether these situations will be followed with pilot or not. If they are, it is necessary to further evaluate the issue of ergonomics and the interaction between pilot and master of the unmanned ship.

Currently, ships with dynamic positioning systems already offer an initial environment in which analyzes of this type of situation can occur especially for aspects of interaction and monitoring of maneuvers with pilot and its dynamics, by the superior amount of resources available when compared DP ships to conventional ships, in the same situation. Therefore, based on studies already

carried out such as the Maritime Unmanned Navigation Through Intelligence in Networks (MUNIM) Project, conceptually speaking it is possible that, in the context of an uncontrolled remote ship, the requirement of Regulation 15 of Solas, chapter V, can be fulfilled By an equivalent ship remote ground station with a set of visual and aural sensors of the vicinity of the ship.

3.3 - As interpreted under national law, could an unmanned ship, failing to proceed with all speed to the assistance of persons in distress at sea as required by Regulation 33 of SOLAS Chapter V, successfully invoke the lack of an on-board crew as the reason for omitting to do so (provided that the ship undertook other measures such as relaying distress signals etc.)?

ABDM Comments:

The Solas Convention (International Convention for the Safeguarding of Human Life at Sea) was promulgated in Brazil through Presidential Decree of May 18, 1982, by Presidential Decree No. 87186 (DOI of 2005/1982). Its 1978 protocol was promulgated by Decree No. 92,610 of May 2, 1986.

Law no. 7,273 of December 10, 1984 regulates the search and rescue of human life in Brazilian waterways, with the purpose of safeguarding human life in the sea, ports and inland waterways. Article 2 specifies that it is for the Brazilian Navy to take measures to provide adequate search and rescue services for human life in danger at sea, ports and inland waterways. For the purposes of this law, the term "search and rescue" means any act or activity performed to assist human life on navigable waterways, and the word rescue has the same meaning. The purposes of search and

rescue operations are: to locate, rescue and return to the occupant safety of aircraft or vessels in distress in Brazilian waters. To that end, the Maritime Authority (MA), which is exercised by the Navy Commander (CM), is responsible for administering the resources that belong to the Brazilian Navy (MB), as is the case with the SAR; Which is a subsidiary assignment with effects on civilian life, with the important function of taking measures to provide adequate search and rescue services for human life in danger at sea, ports and inland waterways [Annex B (7), Of Ordinance no. 156 / MB / 2004].

Law no. 7,273 of December 10, 1984, establishes in its articles 5 and 6, the following text:

Article 5 Every Master is obliged, provided that he can do so without serious danger to his vessel, crew, passenger or other person, to use his vessel and means under his responsibility to render assistance to anyone in danger of life at sea, Ports or inland waterways.

Article 6 The Master of a vessel shall adopt the following procedure in taking cognizance of human life in danger at sea, in ports or in inland waterways:

I - drive your boat at the highest possible speed to the place where people are in danger;

II - to inform the persons in danger and to the ships near the estimated time of arrival in the area and the means available to him for the provision of the services of search and rescue; and

III - after a collision, remain at the scene of the accident, until he is satisfied that there is no need to render assistance, or until he is released from such an obligation by the master of the other vessel.

That being so, and, observing the existing legislation that remits to the Master the obligation to adopt the actions and not having the legal definition of the figure of the Master in the case of unmanned ships, we have the understanding that there is need of law to regulate the subject.

4 - The International Regulations for Preventing of Collisions at Sea, 1972 (COLREGS)

ABDM Comments:

The COLREG/72 is known in Brazil as the Convention to International Regulations for Preventing Collisions at Sea, 1972 - RIPEAM, that establishes rules to prevent collisions at sea, rights of way, procedures in channels and traffic separation schemes, and its text, internalizing the COLREG, was approved by Brazil, through Legislative Decree nº 77/74, which has been in force since July 15th, 1977, and has been updated by amendments originating from IMO.

It should be noted that the rules contained in COLREG/RIPEAM - not including yet the unmanned vessels - are related to the security of navigation, in order to keep safe waterway traffic, which in Brazil is regulated by Law 5.597/97 (LESTA - Water Traffic Safety Law) and by RLESTA (Decree 2.596/98 - regulates LESTA), including its internal waters, considering in this way that the Brazilian Maritime Authority - DPC, in addition to and reflecting RIPEAM, published the Rules for Preventing Collisions in Paraguay-Paraná Waterway (international waters) and the

Directorate of Hydrography Navigation (DHN) edited the NORMAM 28/DHN (MARITIME AUTHORITY STANDARDS FOR NAVIGATION AND NAUTICAL CHARTS).

These diplomas, in accordance with LC 97/99, assign to the Brazilian Navy (MB), in the person of the Maritime Authority (Navy Commander/DPC/DGN), responsibility for the implementation and supervision of navigation safety, being, in this way, the legitimate one to make internal orders – Normas da Autoridade Marítima - NORMAM and give the official technical opinion about COLREG/RIPEAM, and so must be heard about the complex insertion of unmanned ships in the context of navigation safety, especially in AJB (coastal/inland) and in national and international waterways.

After these preliminary statements, we turn to the questionnaire replies of MCI letter to ABDM, as seen:

4.1 - WOULD THE OPERATION OF UNMANNED SHIP, WITHOUT ANY ON BOARD PERSONNEL, PER SER, BE CONTRARY TO THE DUTY/PRINCIPLE OF “GOOD SEAMANSHIP” UNDER THE COLREGS, AS INTERPRETED, NATIONALLY, REGARDLESS OF THE SAFE CREDENTIALS OF THE REMOTE CONTROL SYSTEM?

Unmanned vessels do not fall under the Brazilian legal system and its resulting legislation and regulations, especially with regard

to security of navigation, such as RIPEAM, LESTA, RLESTA and NORMAM, must be passed by on due process of internalization and hearing the Brazilian Navy, in order to adapt themselves to the future amendments to COLREG for inclusion of the operation of unmanned ships, especially in the autonomous mode that causes the greatest difficulties.

Thus, not so modest changes in Brazilian legislation and regulations will be required to become legal the unmanned ship operations in Brazil, as well as a significant change of maritime mentality to accept it as a legal and safe operation of ships - remotely controlled from shore installations with no Officials and Commander -, being also a great challenge to form and training personnel and development of practices in remote operations.

4.2 - WOULD THE OPERATION OF UNMANNED SHIP, WITHOUT ANY ON BOARD PERSONNEL OR ANY HUMAN SUPERVISION, BE CONTRARY TO THE DUTY/PRINCIPLE OF "GOOD SEAMANSHIP" UNDER THE COLREGS, AS INTERPRETED, NATIONALLY, REGARDLESS OF THE SAFE CREDENTIALS OF THE REMOTE CONTROL SYSTEM?

It was understood that this situation is seemed as described on previous answer, including only the autonomous mode to control the unmanned ships without human supervision. So, the same opinion is valid to this, adding only that this kind of operations is under greater risks, making so necessary special rules and

change the maritime mentality in same way.

4.3 - As interpreted under national law, could the COLREG number 5 requirement to maintain a proper lookout be satisfied by camera and aural sensory equipment, fixed to the ship, transmitting the ship vicinity to those navigating the ship from the shore?

Considering that RIPEAM rule 5, based on COLREG, refers to maneuvers at sea under any conditions of visibility, the greatest concern is on navigations under low visibility, since the cameras may be operating with reduced performance and the possible of bad weather conditions that can disrupt transmissions for ground control in terms of sounds sensitivity.

Perhaps, this is the only situation that improper surveillance for remote control of unmanned ships can do.

4.4 - Would a ship navigating without an on-board crew constitute a vessel “not under command” for purpose of COLREG rule 3(f), read together rule 18, as interpreted with your national law?

Based on COLREG, the RIPEAM rule 3 (f) refers to vessels without ability to maintain course and speed (without government), but it's not the same as "without command" – no captain neither crew on board.

Obviously, an unmanned ship that receives correct government orders from a ground control station and a suitable remote control system, and also observes the Brazilian laws, may be a ship without a captain on board, but not disabled to receive remote commands for purposes of Rule 3 (f) and 18 of RIPEAM.

5 - The International Convention on Standards of Training Certification and Watchkeeping 1978 (STCW Convention)

5.1 - The STCW Convention purports to apply to "seafarers serving on board seagoing ships". Would it therefore find no application to a remotely controlled unmanned ship?

ABDM Comments:

“To our knowledge The STCW Convention as it is now find no application to a remotely controlled unmanned ship.

Taking into account that the remotely controlled unmanned ship interacts with the maritime traffic we do understand that the remote control operators must have a proper training that must be customized by IMO standards of training, therefore this leaves us with two options:

- Include remote control operator in the scope of STCW; or
- Develop a new convention on the remote control operators standards of training.”

5.2 - As interpreted under national law, can the STCW requirement that the watchkeeping officers are physically present on the bridge and engine room control room according to Part 4 of Section A-VIII/2 be satisfied where the ship is remotely controlled? Is the situation different with respect to ships with a significantly reduced manning

(bearing in mind that the scope of the convention only applies to seafarers on board seagoing ships)?

ABDM Comments:

To our knowledge the STCW requirement that the watch keeping officers are physically present on the bridge and engine room control room according to Part 4 of Section A-VIII/2 can't be satisfied if the ship is remotely controlled and is totally unmanned. Otherwise if the ship is remotely controlled and has a significantly reduced manning the STCW requirements could be satisfied, at least partially.

6 - LIABILITY

6.1 - Suppose a "ship" was navigating autonomously i.e. through an entirely ~ computerised navigation /collision avoidance system and the system malfunctions and this malfunction is the sole cause of collision damage —broadly, how might liability be apportioned between shipowner and the manufacturers of the autonomous system under your national law?

ABDM Comments:

Brazilian law classifies collision as a simple average, and therefore is subject to the rules of civil liability, governed by Law 10,406/2002 (named as "Brazilian Civil Code") and by Law 556/1850 (named as "Brazilian Commercial Code").

According to Brazilian laws, as described above, the collision damages shall be bear by the ship which caused the accident. So, answering the question, the ship with the malfunctions in the system shall bear the damages, specifically the shipowner.

The rule of Brazilian civil liability provides that the ship-owner is the solely responsible before the third party by the damages

caused by his activity, once the specific case is about unmanned ship and there is no captain or crew to be jointly responsible.

The system was provided by a company hired by the ship-owner, being a contractual relationship, and any malfunction of this system should be resolved within the contract scope, as any damage that this system may cause to a third party. Thus, the company which provides the system has no relation with the rammed ship, not being a legitimate part for the damages' lawsuit.

However, the Brazilian laws ensures to the ship-owner the right of recourse against the company responsible for the system, but it is necessary to prove that the malfunction of the system is a technical problem only, since the shipowner has practice and observed all technical standards rules necessities to assure a safety, performing the maintenance, and not modifying the original system.

6.2 - Arts. 3 and 4 of the 1910 Collision Convention provide for liability in cases of fault. As interpreted under your national law, does the fact that the non-liability situations listed in Art. 2 are not conversely linked to no-fault, leave room for the introduction of a no-fault (i.e. strict) liability (for e.g. unmanned ships) at a national level?

ABDM Comments:

Coexisting in Brazil two regulations for collision, being the rules of the Brazilian Civil and Commercial Codes, and the Brussels Convention (also known as Collision Convention).

The Brussels Convention in Article 2 provides that if the collision is accidental, due to force majeure, or if there is doubt about the ship responsible for the accident, each part involved in the collision shall hold its losses.

Additionally, the Brazilian Civil Code adopted the “Theory of Causality” with some adjustments. For this Theory, to be accountable, it is necessary to verify the existence of three elements: cause, nexus and damage. If any of these elements is missing, there is no responsibility. Moreover, the Brazilian Civil Code provides the hypotheses of responsibility’s exclusion, which may resemble with Article 2 of the Brussels Convention.

It remains clear, thus, that the Brazilian laws does not accept responsibility without fault, except in the specifics cases that the law allows the right of recourse to the person required to respond by the law even without fault. Therefore, it is not possible any judge regulates this gap in the laws.