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WORLD MARITIME UNIVERSITY
Malmö, Sweden

**A SCENARIO-BASED ANALYSIS OF THE
DOMESTIC LAW OF ARGENTINA IN THE
CONTEXT OF THE NAIROBI WRECK
REMOVAL CONVENTION**

By
LAURA NOELIA SÁNCHEZ
ARGENTINA

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirements for the reward of the degree of

MASTER OF SCIENCE
in
MARITIME AFFAIRS

MARITIME SAFETY AND ENVIRONMENTAL ADMINISTRATION

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Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views and are not necessarily endorsed by the University.

(Signature):

(Date): **21/September/2021**

Supervised by: **Dr. Henning Jessen**

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Abstract

Title of Dissertation **The Analysis of the Domestic Law of Argentina and the Provisions of the Nairobi Convention in a Wreck Removal Scenario.**

Degree **Master of Science**

Over the years, historic wrecks and the activity of wreck removal have been a complete challenge for shipowners and the Coastal state due to liability and compensation. The creation of the WRC in 2007 tried to diminish the international legislative gap and to provide to the Coastal State the tools to claim shipowner liability among the WRC insurance and, at the same time, compensation for the wreck removal activities.

After the approval of the WRC in 2015, the gap commenced between the provision of this international law and the domestic law of many States regarding liability and compensation on wreck removal activities. It causes the adaptation and modification of the domestic law to cover the issues provided by wreck removal activities or the decision of the State to be part of the WRC.

In the domestic law of Argentina, it designates the Maritime Administration to face the requirements in case of the necessity of removing a wreck and allocates the main responsibility of the operations on the PNA; however, Argentina is not part of the WRC.

In this regard, the document provides a description of the confirmation of the Maritime Administration of Argentina and it drives the obligations to the final responsible for the operations, the PNA. In the same way, it highlights the action taken by bordering countries and provides an analysis of the results of wreck removal activities in jurisdictional waters just based on the provisions of the domestic law of the State.

The document tries to describe a hypothetical scenario able to link the scope of the Argentine domestic law with the beneficial provision of the WRC and justify if being part of the Convention (Opt-In), will be a significant reduction for the gaps on liability and compensation in wreck removal operations in Argentina.

KEYWORDS: Administration, PNA, Wreck Removal, liability, compensation, jurisdictional waters.

Table of Contents

Declaration	ii
Acknowledgments	iii
Abstract	iv
Table of Contents	v
List of Table and Figures	vii
List of Abbreviations	viii
Chapter 1	1
1 Introduction	1
1.1 Background of International Wreck Removal Activity	1
1.1.2 Background of Argentine Wreck Removal Activity	3
1.2 Research Objectives	3
1.3 Research Questions	4
1.4 Methodology	4
1.5 Scope of Research	5
1.6 Dissertation Structure	5
Chapter 2	6
2 The evolution in the activity of wreck removal	6
2.1 The WRC Convention	6
2.1.1 Definition of wreck	6
2.2 Historical objects under the sea	9
2.3 The removal of wreck	10
2.3.1 Obstacle for Safety of Navigation	10
2.3.2 Environmental Hazard	11
2.3.3 Abandoned ships	12
2.4 Largest wreck removal operation	12
Chapter 3	14
3 The Implementation of International Maritime Instruments under the National Regulations of Argentina	14
3.1 The Maritime Administration of Argentina	14
3.1.1 Prefectura Naval Argentina	15

3.2 The IMO Instruments and the National Legislation of Argentina	16
3.3 National Law 18.398 “General Law of the PNA”	22
3.4 National Law 20.094 “Navigation Law”	23
3.4.1 The Role of the Maritime Authority	24
Chapter 4	26
4 Description of Shipping, Ports and Wreck Removal in Argentina	26
4.1 Shipping activity and Ports in Argentina	26
4.2 The Features of the Jurisdictional Waters	28
4.2.1 Territorial Water, Contiguous Zone and EEZ	30
4.3 Introduction to a Hypothetical Case	31
4.3.1 Responsibilities and Power of the Administration	32
4.3.2 Wreck Removal in Territorial Waters	33
4.4 The Hypothetical Case Based on Real Conditions	34
Chapter 5	37
5 Conclusions and recommendations	37
5.1 Conclusion	37
5.2 Recommendations	39
References	41

List of Tables and Figures

Table 1: IMO Profile Treaties

Figure 1: Map of Argentina and the main Ports.

Figure 2: Comparative Maps of Tratado del Río de la Plata y su Frente Marítimo

Figure 3: Representation of the Area of the hypothetical Incident

List of Abbreviations

ACUMAR	Asociación Cuenca Matanza Riachuelo
ARA	Armada Argentina
ARCG	Argentine Coast Guard
CARP	Comisión Administradora del Río de la Plata
CLC	Civil Liability Convention
EEZ	Exclusive Economic Zone
GT	Gross Tonnage
HNS	Hazardous and Noxious Substances
IMO	International Maritime Organization
ISU	International Salvage Union
LLMC	1976 Limitation of Liability for Marine Claims
MoU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration
PNA	Prefectura Naval Argentina
R.O.U	República Oriental del Uruguay
SAR	Search and Rescue
SERS	Servicio de Salvamento, Incendio y Protección Ambiental
STCW 78/84	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 and amendment
The Administration	The Maritime Administration of Argentina
UNCLOS	United Nations Convention of the Law of the Sea
UNESCO	United Nations Education, Scientific and Cultural Organization
USA	United State of America
USCG	United State of Coast Guard
VTS	Vessel Traffic Service
WRC	Nairobi International Convention of the Removal of Wrecks, 2007

CHAPTER 1

1 Introduction

1.1 Background of International Wreck Removal Activity

The Maritime Administration of Argentina (the Administration) has not ratified the “Nairobi International Convention on the Removal of Wrecks, 2007” (hereinafter WRC), which was adopted by an international conference held in Kenya on 18 May in 2007 and entered into force on 14 April of 2015 with just 15 state parties. The Convention is an international instrument of the International Maritime Administration (the Organization) which provides the legal basis for the States to “remove, or have removed, shipwrecks” that may have the potential to adversely affect the safety of lives, goods and property at sea, as well the marine environment. It provides a set of uniform international rules to ensure the prompt and effective removal of wrecks located beyond the territorial sea (IMO, 2021).

However, the Administration has actively participated in the activity of the removal of wrecks since 1965, with the participation of the Coast Guard (Prefectura Naval Argentina), hereinafter the PNA and the private companies established in the country. Certain provisions of WRC show that it has common points in the structure of the liability regime in comparison with conventions, such as International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969, 1992 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 1992), Convention on Limitation of Liability for Maritime Claims (LLMC), 1976, International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS), 1996 (and its 2010 Protocol) and the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001, all of which sharing common subject, liability and compensation. Historically, prior to the 1980s, no Coastal State purported to exercise regulatory jurisdiction over historic shipwrecks, except for those located within its “territorial waters,” originally set at three nautical miles and later expanded to twelve. The definition of “territorial waters” is described in the United Nations Convention on the Law of the Sea (UNCLOS) that entered into force on 16 November 1994.

During UNCLOS negotiation and between 1973 and 1982, the Coastal State jurisdiction over historic shipwrecks were raised for the first time. It was quickly agreed that the absolute limit of Coastal State authority over “archaeological and historical objects found at sea” was twenty-

four nautical miles, the outer limit of the Contiguous Zone established under Article 33 of UNCLOS. Additionally, the article 303 of the 1982 UNCLOS in paragraph 3 explicitly reserved the rights of salvage or finds under traditional maritime law: "Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty or laws or practices with respect to cultural exchanges" (Historic Salvage, 1998, p 108).

The establishment of the responsibilities in the maritime field was taking part overseas, moving forward the development of different concepts related to salvage and the wreck removal activity. In 1989, the Salvage Convention which entered into force on 14 July 1996, replaced the 1910 Brussels Convention on Salvage. It incorporated the "no cure, no pay" principle under which a salvor is only rewarded for services if the operation is successful, excluding any historic shipwrecks from its application and defining "salvage operations" as "any act or activity to assist a vessel or any other property in danger in navigable waters or in any waters whatsoever." The objective of it was clarified if the shipwrecks are not "in danger", they would not qualify for salvage (IMO, 2021).

Nevertheless, various conventions named before were created by the IMO regarding liability and compensation without establishing a highlighted point on shipwrecks, but all of these contributed to narrowing down the gap of liability in wreck removal scenarios. According to the Insurance Information Institute (2020), during 2010 the total losses of ships were 130, the highest in the period 2010-2014. It increased at the same time the number of abandoned ships that finally will be a potential shipwreck and the costs of the Coastal State for the wreck removal activity. In this regard, the stakeholders and the maritime administrations were analyzing the provision that the WRC was providing, including to the benefits for the Coastal State.

The shipwrecks, implying a navigation risk and/or polluting to the marine environment, were bringing out financial implications for the maritime authorities and disagreement of liability between the states (Tecen, 2019). The WRC Convention meant to fill a gap in international law by providing to the Coastal States with clear mandates of wreck removal if they were situated outside of the territorial sea while, at the same time, it was trying to enable them to claim compensation for incurred costs as a result of the removal (Wreck Removal, 2016). There are a total of 55 states that have ratified the WRC Convention, representing a total of 77,26 % of the total gross tonnage of the world (IMO, 2020).

1.1.2 Background of Argentine Wreck Removal Activity

The analysis of the activity of wreck removal in South American countries is different because of the limitation of the resources and the reduced worldwide fleet flying their flags. The situation in the Republic of Argentina (Argentina), the southernmost country in the continent has been facing the activity of wreck removal since 1965, but until 2021 has not ratified the WRC Convention.

The Administration has been working on removing wrecks since 1965 when the National Law 16.523 about removal of wrecks in jurisdictional water designated the Argentine Coast Guard or Prefectura Naval Argentina (PNA) to solve, with more speediness and efficiency, the technical and legal aspects related to refloating, removal and dispersion of wrecks hindering the navigation routes. The specific area of the PNA in charge of the removal of wrecks is the Salvage, Firefighting and Pollution Control Service (SERS). It was legally created in 1953 by the National Law 10.794 and currently the SERS covers the responsibility in SAR, Marine Pollution, Fire Department, Ship Salvage and Rescue Diving.

In the past, the activity of wreck removal started in Argentina in 1959 with the private sector, regulated under the supervision of the PNA. During 2020, the PNA registered more than 10 companies dedicated to carry on the process of removal of wrecks, covering the requirements to face the activity in national or international waters.

The Administration has not ratified the LLMC Convention, the WRC Convention and the Bunker Convention, all of which deal with liability and compensation, but has ratified the LC Convention, the CLC and 92 Protocol, the FUND Convention including the 92 Protocol. The domestic law of Argentina has strong bases to establish a liability regime, but the scope to international incidents is still weak.

1.2 Research Objectives

The objective of this dissertation is to describe the entire process of wreck removal activity from the international and national perspective and describe how the Argentine Maritime Administration is facing liability and cost with foreign flags without the ratification of the WRC. The document is based on a descriptive and conceptual approach to describe, based on a hypothetical scenario, the capability of Argentina to face the necessity to remove a wreck in jurisdictional waters when it has foreign flag and at the same time, the flag is not part of the

WRC. If the financial resolution of the case is based just on the domestic law, it is beneficial for the State in comparison with States parts of the WRC.

Evaluate the score of the domestic law in wreck removal operations regarding the available cost of the country and compare the final output with the cost of the States parties of the WRC. It is important to analyse if the ratification of the convention possibly allows the State to avoid economic losses and promote an organized process to determine the liability and compensation in case of wreck removal, without the intervention of the resources of the State. Finally, this dissertation will conclude with a strong support to recommend that the Administration should ratify the WRC or maintain the provision of the domestic law and assume the consequences.

1.3 Research Questions

In order to achieve an organized and logical structure in this dissertation, the following questions are the key insight to develop this document:

- Why is a wreck in jurisdictional water important for the Coastal State?
- How is the Domestic Law of Argentina covering the wreck removal activity?
- Is the Domestic Law of Argentina having an international scope in the wreck removal scenario, in jurisdictional waters?
- If the total operation is assumed by the State, in this case Argentina, are the Governmental resources enough to face the activity? How is the role of the Private Sector?
- Will the ratification of the WRC provide the Administration better tools to determine liability and compensation in a wreck removal scenario in Argentine jurisdictional waters?

1.4 Methodology

To achieve the scope of the research, the information collected to develop the topic was gathered mainly from the Argentine legislation and official documents that described domestic law and the implementation of the WRC. The list of references includes official reports from different governmental organizations, books, different book sections, journalist articles and annual reports from technical organizations involved in wreck removal.

The described approach was selected by the author as most suitable for the topic since significant documents have been conducted in the same with very satisfactory results, and clear analysis for students from universities, many of whom with a lawyer background. Specific data from the domestic law of Argentina has been collected and compared with official documents from other States such as ROU and Brazil due to geographical region. Additionally, the provisions of the IMO Conventions and reports from maritime incidents related to wreck removal have been analyzed to accomplish the most accurate and real picture of the topic.

1.5 Scope of Research

Based on the intention to provide a clear picture of the situation of the wreck removal activity in Argentina and compare it with some other countries from Latin America and Europe, the research of this document is seeking the most complete answers to understand the position of the country in case of wreck removal and the ratification of the WRC. The experience of the Administration, most specifically the PNA and the legal bases of the domestic law have been covering many aspects of the activity regarding liability and compensation, but after the creation and approval of the WRC, all the domestic laws of Argentina in relation with the activity of wreck removal are not enough to solve international scenarios in jurisdictional waters. The determination to accept the full participation of the private sector and the high costs of the operation are still representing a gap in domestic law.

1.6 Dissertation Structure

The structure of the dissertation is divided into five chapters with different headings and subheadings, tables, and figures. Chapter 1 is the introduction, and it will provide the basic data to understand the implication of the topic. Chapter 2 will fully introduce the readers to the wreck removal activity and it highlights the importance of taking care of them. Chapter 3 remarks the implementation of the International Maritime Instruments in the domestic law of Argentina and describes how the Administration is composed. Chapter 4 points out the described information based on one hypothetical case of wreck removal in the EEZ of Argentina. Finally, Chapter 5 will provide the conclusion and recommendations obtained from the research, clarifying the position of the author regarding the ratification of WRC.

CHAPTER 2

2 The evolution in the activity of wreck removal

2.1 The WRC Convention

The Nairobi International Convention on the Removal of Wrecks, 2007, was adopted in the same year but it entered into force in 2015. The WRC is the designated convention to provide the legal basis, for the signature States *“to remove, or have removed, shipwrecks that may have the potential to adversely affect the safety of lives, goods and property at sea, as well as the marine environment.”* (IMO, 2019). The provisions of the convention have established since 2007 liability and compensation for the wreck removal operation, making it responsible for the payment to the shipowner and their insurers. In the same way, it extends jurisdiction for wreck removal to 200 nautical miles from the baseline and additionally, the states are able to choose to apply the Convention within their territorial waters, which means within their 12 nautical miles. However, the State will also apply their own domestic law in shore waters. In addition, the WRC allows the shipowner to limit liability for the cost of the operation under any applicable international or national regulation. A good example is the 1976 Limitation of Liability for Marine Claims (LLMC) Convention and amended, the limitation of liability just will be applied to these states which have ratified the LLMC Convention without reservation. This example remarks that while WRC allows limitation of liability in some way, in real scenarios the shipowner is not allowed to do so (Lloyd’s 2013). The owners are not the only ones liable for locating, marking and removing wrecks, also the States must take a certification of insurance or any demonstration of financial security for liability, compulsory for ships of 300 gross tonnage and above and also allow the States parties to take actions against the insurers. (IMO, 2020)

2.1.1 Definition of wreck

The aim of this chapter will be to provide a common point of the definition of wreck in international regulations. Logically, the activity of wreck removal is allocated in the shipping field, but the definition of *“wreck”* could be applied in different areas. In the international maritime domain, the definition of wreck is provided by the Nairobi International Convention on the Removal of Wrecks, 2007 (p2):

- (a) a sunken or stranded ship; or
- (b) any part of a sunken or stranded ship, including any object that is or has been on board such a ship; or
- (c) any object that is lost at sea from a ship and that is stranded, sunken or adrift at sea; or
- (d) a ship that is about, or may reasonably be expected, to sink or to strand, where effective measures to assist the ship or any property in danger are not already being taken.

Different countries have a domestic definition of wreck even though they have ratified the WRC or not.

In the case of the United Kingdom legislation, the statutory instrument with a clear interpretation of wreck is the Merchant Shipping Act 1995. In the Act, Part IX, Chapter III, section 255 includes the definition of wreck as “*jetsam¹, flotsam², lagan and derelict found in or on the shores of the sea or any tidal water*”. Additionally, the Merchant Shipping Act 1995 in its Chapter II delivers a clear explanation of the procedure to deal with wrecks. It includes the duties in case of finding a wreck, the obligations of the receiver, the claim and the immediate sale of the wreck in certain clear explanation of the procedure to deal with wrecks. Further, it includes the duties in case of finding a wreck, the obligations of the receiver, the claim and the immediate sale of the wreck in certain cases.

The national legislation of France considers wrecks “*which are unseaworthy and abandoned*” (Fan, 2006) and makes a clear distinction between floating wrecks and those that are not afloat. It clarifies that the wreck exists when two elements are combined, namely the subjective and the objective element. The first one is the lack of seaworthiness and the second element is the condition of total abandonment by the crew, without surveillance and maneuvering (Gregori, 2016).

In Malaysia, the definition of wreck is provided by the Malaysia Shipping Ordinance 1952 in the Section 366 as “*... to include jetsam, flotsam, lagan and derelict found in or on the shores of the sea or any tidal water ...*” (Saharuddin, 2019) and categorizes shipwrecks in historic, world ships and news.

The national legislation of Argentina through the PNA is issuing different provisions called Maritime Regulation and in 1995, one of these national instruments provided a clear definition of a wreck. The Maritime Regulation 2-95 called Administrative Standards related to the extraction, removal, demolition and refloating of ships aircrafts and wreck (Normas Administrativas relativas a la extracción, remoción, demolición y reflotamiento de buques, aeronaves y sus restos náufragos);

Point 3.14

“Are the partial components of any ship, naval artifact, aircraft, including all the transported elements by them or from another fallen element to the water and due to the potential risk to the navigation or pollution must be extracted, removed, demolished or refloated.”

The definition highlights that for a sunken vessel to be treated as a wreck it has to have the following criteria: 1) It could be the total ship or just parts of it. 2) The ship, her parts or the transported elements have to be fallen into the water and they must be present. 3) The wreck is a potential risk to the navigation or pollution. Additionally, the Maritime Regulation 2-95 provides definitions of extraction³, removal⁴ demolition⁵ and refloating⁶ in order to apply through the Maritime Administration the proper procedure when a wreck removal process is required.

¹ jetsam is a definition provided by the Government of UK and it describes goods cast overboard to lighten a vessel in danger of sinking. The vessel may still perish.

² flotsam describes goods lost from a ship which has sunk or otherwise perished. Goods are recoverable because they remain afloat.

³extraction, refers to any maneuver done to remove the wreck outside the water to drop off on the shore.

⁴removal, is any maneuver able to move from one place to another the wreck, avoiding turning it into a danger to navigation or endanger to any other activity.

⁶refloating, act that provides buoyancy to the wreck able to move it by itself to be allocated in a safe place.

2.2 Historical objects under the sea

The WRC provides a general definition of a wreck and the situations in which a ship must be treated as a wreck. On the other hand, the pushing interest in the removal of wrecks started with the interest in the archaeological and historical objects or shipwrecks during the period 1973 and 1982 with the conclusion of UNCLOS. It mentions in Article 149 "*Archaeological and historical objects*" and "*Archaeological and historical objects found at sea*" in Article 303. The first highlights the right of the State or country of origin and the second that "*Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty or laws or practices with respect to cultural exchanges*". (Historic Salvage, 1998).

Another clear approach was made by the UNESCO Convention on the Protection of the Underwater Cultural Heritage, adopted in 2001 and entered into force in 2009. It enables States to protect their submerged cultural heritage. In this convention, the definition applies to underwater culture and heritage referring to them as "*all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years*" and it mentions vessels and aircraft from a state as "*warships, and other vessels or aircraft that were owned or operated by a State and used, at the time of sinking, only for government non-commercial purposes, that are identified as such and that meet the definition of underwater cultural heritage.*" (UNESCO, 2001). These definitions are allocated in a category of wreck and show a clear position of interest based on the protection of the historical objects and the financial status of them. The UNESCO Convention mentioned before triggering some countries to develop national laws for a basic or even a high standard of protection, while in others no legal protection of underwater cultural heritage exists at all. (UNESCO, 2001).

In the case of Argentina, a member State of the UN, the country has ratified the UNESCO Convention on the Protection of the Underwater Cultural Heritage and it has been applied through Law 26.556 since 2009.

In addition, the domestic Law 25.743 "*National Law to Protect the Archaeological and Palaeontological Heritage*", (Ley Nacional de Protección del Patrimonio Arqueológico y Paleontológico) defines them as any wreck, in land or water able to provide information about the past until recent time (Subacuatico Argentina, 2015).

2.3 The removal of wrecks

Wreck removal could be identified by two different aspects. One aspect is based on the private law which identifies a wreck as a maritime property and the second is the regulatory law, positioning a wreck as an obstacle for safety navigation or a potential environmental hazard (Fan, 2006).

The wreck is a maritime property because by definition it used to be a ship having an owner with financial interests on it, unless the ship were legally abandoned, but this term will be elaborated in the further paragraphs. It is, therefore, the WRC defines ship as “...*a seagoing vessel of any type whatsoever...*” and defines also registered owner as a registered person, persons or company at the moment of a casualty. In this regard, the private law acquires the necessary tools to face the activity of wreck removal on behalf of the protection of the interest on the property.

The public law identifies two possible conditions of the wreck that make the activity of wreck possible. It has to be an obstacle for safety navigation or a potential environmental hazard. The WRC mentions both situations when defines hazard as “...*any condition or threat that:*

(a) poses a danger or impediment to navigation; or

(b) may reasonably be expected to result in major harmful consequences to the marine environment, or damage to the coastline or related interests of one or more States.”

In the case of Argentina, the removal of wrecks attends primarily the provisions of the national law and depending on the conditions of the wreck, it could determine the final intervention of a private company. In the case of national law, it designates the PNA, as a technical entity with the specific training and knowledge to remove the wreck. The mentioned process is described in the Law 20.094 “*Navigation Law*” (Ley N 20.094 “*Ley de Navegación*”) and through the Art. 17 it points out the conditions and steps that have to be followed by the legal responsible of the wreck. It means that both aspects are attached to the domestic law of the country.

2.3.1 Obstacle for Safety of Navigation

When a ship is declared a wreck, it could be a hazard to navigation depending on where it is positioned. An illustrative example would be a wreck positioned in such a way as to obstruct trafficked fairways, channels or passages. In 2002, the *M/V Tricolor* collided with the container

ship *Kariba* about 20 miles north of the French coast in the English Channel. The Norwegian-flagged *MV Tricolor* was a 50,000 tons vehicle carrier and it also took part in two more subsequent collisions. The wreck of the *M/V Tricolor* was positioned inside the French Exclusive Economic Zone situated in a crossing area in the traffic separation scheme of the English Channel where the traffic is dense. France assumed the common practice of marking by buoys but despite this, two nights after the first collision the Dutch coastline ship *Nicola* collided with the *M/V Tricolor*, which was just a few centimeters above the waterline. Additionally, weeks after the second collision, a Turkish oil tanker transporting 66,000 tons of kerosene hit the wreck of the *MV Tricolor* resulting in the total sinking of the ship. The described case of the *M/V Tricolor* demonstrates the importance of prompt action and removal because, despite efforts to mark and spread updated information, the wreck is still an obstacle for free and safe navigation and the main reason for more casualties (Kern, 2016).

2.3.2 Environmental Hazard

The wreck could be posing a hazard to the environment and marine life. At the current time, most of the gross tonnage of international shipping is using fuel to fulfil the transport of passengers or goods. Different research projects have claimed that the demand for marine fuel for 2020 will exceed 500 million tons (Markit, 2019). This means that a marine casualty ending in a wreck could be a potential fouling of the coastline and eliminate marine life. It is clear a wreck, due to its own fuel, propulsion oil or transported dangerous materials is a hazard to the environment and it requires rapid and proper action. Following with the *M/V Tricolor* example, days after the earlier collision mentioned in the previous paragraph, during a pumping operation, the plug of one of the bunkers had been pulled out by one of the tugs chartered of the ship owner and “...propulsion fuel from the TRICOLOR spread over the sea.” (Graham Vickery, 2003). In the same way, in a similar situation under bad weather conditions, two valves of a bunker from the company were damaged and produced a massive heavy fuel spill.

Another scenario is presented with the presence of dangerous substances such as oil, chlorinated hydrocarbons, polychlorinated biphenyls, heavy metals and radioactive waste because these materials are not biodegradable. The result of these spilled dangerous substances affects indeed the normal growth, reproduction, mortality and food chain of marine life due to the absorption of the material by the organisms in this habitat (Kepplerus, 2010).

2.3.3 Abandoned ships

The international regulations are not providing a unique definition of an abandoned ship, but they are delegating the responsibility to the domestic law. In this regard, the domestic law of each State is responsible for the establishment of the framework and the legal process to be followed when a ship is ownerless. British law concludes that the abandonment of a ship could happen due to the volunteer of the owner or due to force majeure. Following this concept, the Italian law describes the notion of an abandoned ship when it is made by the crew and its passengers. In this particular case, the Italian law is connecting the mentioned idea with the definition of shipwreck instead of the concept of an ownerless ship.

On the other hand, the concept of abandonment has a direct connection with the concept of “*derelict*”. According to the Merchant Shipping Act, 1995, in section 255, the word derelict is mentioned in the definition of wreck and it emphasizes the idea of property, vessel or cargo abandoned by the owner, master, crewmembers and without any intention of recovering it or returning to it. Sometimes it is easy to conclude that an abandoned ship is the result of the decision of the owner, but there are many cases of abandonment by a major force in which there is no intention or possibility of recovering the vessel. These cases are not part of the concept of derelict (Gregori, 2016).

In the case of the domestic law of Argentina, the concept of “*abandonment*” is a right assigned to the owner of the ship. This right is able to be used under different circumstances, but in all of them, through the legal procedures established by the Maritime Administration. In addition, the provision of the domestic law provides a window of time for the owner to remove the ship or wreck when it is an obstacle for safety of navigation or potential environmental hazard. Once exceeding the period of time, the ship is declared abandoned and a property of the public law (Law 20.094 “*Navigation Law*” of Argentina).

The situation of abandonment is clearly determined by the national law of every country, being that the previous step to convert a private property into a national concern or third-party responsibility.

2.4 Largest wreck removal operation

Removing wrecks from deep or shallow water is an extremely costly and complex activity that requires proper equipment and a highly qualified human element. In addition, the current

entities taking part in the activity of wreck removal have included more factors such as the location of the wreck, contractual arrangement, the possibility of recovering goods, the effectiveness of contractors, the cost of the logistics of the operation and more eventual factors that are part of the total cost of this activity. At the moment, the finished and most expensive operation took place on the coast of Italy between 2012 and 2014, it was the removal of the Costa Concordia cruise ship. On 13 January 2012, the cruise ship ran aground after striking an underwater rock off Isola del Giglio, Tuscany in Italy, it capsized and sank in shallow waters causing 32 deaths. The Costa Concordia wreck removal cost in the region US\$ 1.3 billion, positioning it as the largest and most expensive operation ever undertaken (ISU, 2020). This international incident triggered the salvage community and State parties of the IMO to raise significantly the profile of the marine salvage industry and standardize the technical competence in the activity of wreck removal. Furthermore, it sponsored the entering into force of the WRC in 2015 based on the necessity to remove the gap of liability and avoid the increment of cost by national authorities' demands during the wreck removal operations. Among the provisions for Coastal States, they should take action in their EEZ and territorial waters (optional), it is in case of wrecks posing navigational and/or environmental hazards.

On the other hand, on September 8 of 2019, a South Korean cargo ship carrying 4200 vehicles capsized off the coast of St Simons Island, state of Georgia (USA). *The Golden Ray* departed from the port of Brunswick harbour on September 7 to the port of Baltimore but it capsized 23 minutes after take-off due to a sudden loss of stability caused by cargo stowage and improper ballast water management or cargo shift. According to the United States Coast Guard (USCG), all the 23 crew members were rescued and safely evacuated from the ship, but the ship is still blocking the regular marine traffic in the area (Voytenko, 2019).

The removal activity of the capsized *Golden Ray* is carried out by the T&T Salvage company from the USA and according to the North P&I club, in May of 2020 the insurance was claiming approximately US\$ 400 million but, after the subsequent operations, the total cost is estimated to be more than US\$ 788 million according to the insurer reported on February 2021 (Hobbs, 2021).

CHAPTER 3

3 The Implementation of International Maritime Instruments under the National Regulations of Argentina

3.1 The Maritime Administration of Argentina

The Maritime Administration of Argentina has three principal pillars; these are the Ministry of Defense (Ministerio de Defensa), the Ministry of Security (Ministerio de Seguridad) and the Ministry of Federal Planning, Public Investment and Services (Ministerio de Planificación Federal, Inversión Pública y Servicios). The activity of the mentioned ministries is coordinated by the Chief of the Cabinet of Ministers (Jefe de Gabinete de Ministros) of Argentina depending on the National Government. In the case of the representation of the State in IMO, this is regulated by the General Direction of Legal Advice (Dirección General de Consejería Legal) through the Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores, Comercio Internacional y Culto).

The Ministry of Defense by the Planning Secretariat (Secretaría de Planemiento) is in charge of the Naval Hydrography Service (Servicio de Hidrografía Naval) and the National Meteorological Service (Servicio Meteorológico Nacional). In the same way, the Navy (ARA) is another institution under the supervision of this Ministry and is responsible for the competence of the seafarers, the National Agency of Search and Rescue (SAR) and the Administrative Court of Navigation. The National Meteorological Service elaborates and distributes the forecast among all the maritime areas, rivers, lakes and it has two main Forecast Centers, both covering the maritime area allocated between 35 degree, 50 minutes south latitude until the Antarctic baseline and 20-degree west meridian until the Cape Horn, the southernmost point of land in South America.

In this regard, the Argentine Navy has the authority to apply and enforce the Standards of Training, Certification and Watchkeeping for Seafarers Regulation to the merchant personnel. For that reason, they are the head of the National School of Nautical (Escuela Nacional de Náutica), the National Fluvial School (Escuela Nacional Fluvial) and the National School of Fishing (Escuela Nacional de Pesca). Furthermore, the Navy regulates the private academies with the competence to issue training and certificates under the chapter VI of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 and

amendment. Additionally, the Navy is also the designated national authority for SAR obligations. It controls 3 Coordination Centers and 18 Sub Centers SAR Coordination, of which the latter is under the command of the PNA.

Under the Ministry of Defense and by National Law 18.870 (Ley 18.870), in 1971 the Administrative Court of Navigation was created. The Court, based on investigations is in charge of discovering the lack of professional aptitude, imprudence, inexperience or negligence of the involved personnel, either directly or indirectly in a maritime accident, the avoidance of the law or current regulations on the case. The provisions of this domestic law determine the level of responsibility of all the actors in any maritime accident and enforce domestic regulations in this regard, but without the scope to determine judicial punishment. In the particular case of wreck removal, the Court will determine the responsibilities that cause the shipwreck and will ensure the proper applicability of the domestic law to conduct the activity of wreck removal.

The Ministry of Federal Planning, Public Investment and Services is responsible for the Transport Secretariat (Secretaria de Transporte) and, in the same way the Secretariat is responsible for the Sub Secretariat of Port and Navigability (Subsecretaría de Puertos y Vías Navegables). The Sub Secretariat is the entity that regulates the part of the Maritime Administration not designated to the PNA. It is in charge of the National Direction of Fluvial Transport and Maritime (Dirección Nacional de Transporte Fluvial y Marítimo), which is the enforcement authority of the STCW 78/84. The National Direction of Navigability (Dirección Nacional de Vías Navegables) is in charge of all the facilities and maintenance of the navigation aids, the dredging and the adequate allocation of the buoys and signal across national waters and the National Direction of Ports (Dirección Nacional de Puertos), is responsible for the port facilities and port reception facilities for ships.

3.1.1 Prefectura Naval Argentina

In Argentina, the PNA is the official name of the Argentine Coast Guard (ARCG) and it has been working since 1810 under the command of the Ministry of Defense, as a branch of the Navy and since 1985 of the Ministry of Security. The PNA is the institution in charge of the majority of the Maritime Authority obligations with a background of 211 years of experience. The structure of the PNA has four main areas named Directorates. These are the General Directorate of Security (Dirección General de Seguridad), General Directorate of Planning and Development (Dirección General de Planeamiento y Desarrollo), General Directorate of

Logistics (Dirección General de Logística) and the General Directorate of Development and Human Resources (Dirección General de Recursos Humanos y Desarrollo).

The General Directorate of Security is the area that covers safety of navigation in jurisdictional waters and environmental and maritime protection. These obligations are coordinated for other four Directorates that are responsible for the optimal response in any particular case or, in daily activities. The mentioned four Directorates are, the Operations Directorate (Dirección de Operaciones), Directorate of Judicial Police, Maritime Protection and Ports (Policía Judicial, Protección Marítima y Puertos), Directorate of Environmental Protection (Protección Ambiental) and Directorate of Safety Police of Navigation (Policía de Seguridad de la Navegación). The last is the Directorate that controls the national register of ships, the competence of the personnel on board and the referendums based on the STCW 78.

The General Directorate of Planning and Development coordinates activities related to the provision of STCW 78 and administers more than 30 academic institutions to provide training at all the levels for seafarers. The aforementioned activities are just a portion of activities and responsibilities that the PNA faces in Argentina.

All the Directorates are working together in order to fulfill the tasks of the Government in the national and international maritime areas, but the General Directorate of Security through the Operations Directorate will be the head of the decision in case of wreck removal. The last Directorate is in command of the Salvage, Firefighting and Pollution Control Service (SERS), a multi-tasking service providing first response in case of any emergency. This Service has the responsibility to conduct inspections to ships, naval craft that are sunk or aground in Argentine waters and is the only one with the technical knowledge to supervise and carry out removal or demolition

3.2 The IMO Instruments and the National Legislation of Argentina

The International instruments of the IMO are incorporated into the National Legislation of Argentina after a legal process of analysis and approval of the Legislative⁷ power.

⁷ Legislative power of the Nation shall be vested in a Congress composed of two Houses, one of Deputies of the Nation and the other of Senators for the provinces and for the City of Buenos Aires (UN, 2021).

This governmental branch works in the National Congress and it is composed of two main groups: Senators (Senadores) and Deputies (Diputados).

Furthermore, when an IMO instrument is going to be ratified by the State, the Congress is responsible for the approval and designation of the institution in charge of the enforcement.

This process is accomplished by the creation of a National Law that describes the provisions of the incorporated international instrument, the enforcement authority and the period of time to enter into force in the State. Once the National Law recognizes the international instrument, it has three more tools that the Government could use to support, reinforce or even expand the provisions of it: The Decree, the Regulations and the Maritime Ordinance. The Decree is signed by the President of Argentina, the Chief of Cabinet Ministers and any Minister if it is required. In the maritime field a decree provides tools to apply the National Law that ratified the Convention. The Regulations are signed by Sub-Secretaries, head of decentralized agencies and Directors. The last are the Maritime Ordinances, and these are exclusively signed by the head of the PNA who has the rank of Admiral and by responsibility is called the Prefecto Nacional Naval. These Maritime Ordinances are the tools to incorporate the amendments of the ratified Conventions when the enforcement authority is the PNA, when there is public access and when the amendments are issued by official communications.

The access of all this information is public domain. The PNA has developed a web page to accomplish circulated information across all the National Jurisdictions. In relation with the activity of salvage, liability, oil pollution prevention and control, Argentina and the concerns and obligations of the Administration of the country, as a member state of the IMO Argentina has ratified the International Conventions in the following Table 1:

IMO PROFILE TREATIES

Country Code	Country Name	Treaty	Subject matter	Status
ARG	Argentina	Convention on the International Maritime Organization, 1948	Uncategorized	Acceptance
ARG	Argentina	1991 amendments to the IMO Convention which were adopted by the Assembly of the Organization on 7 November 1991 by resolution A.724(17)	Uncategorized	Acceptance
ARG	Argentina	1993 amendments to the IMO Convention which were adopted by the Assembly of the Organization on	Uncategorized	Acceptance

		4 November 1993 by resolution A.735(18)		
ARG	Argentina	International Convention on the Control of Harmful Anti Fouling Systems on Ships, 2001	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001	Liability and Compensation	Not known
ARG	Argentina	International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004	Environment / Prevention of Marine Pollution	Ratification
ARG	Argentina	International Convention on Civil Liability for Oil Pollution Damage, 1969	Liability and Compensation	Not known
ARG	Argentina	Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 1969	Uncategorized	Not known
ARG	Argentina	Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969	Liability and Compensation	Accession
ARG	Argentina	International Regulations for Preventing Collisions at Sea, 1960	Maritime Safety and Security	Accession
ARG	Argentina	International Convention for Safe Containers (CSC), 1972, as amended	Maritime Safety and Security	Accession
ARG	Argentina	1993 amendments to the Convention and Annexes I and II	Maritime Safety and Security	Not known
ARG	Argentina	Convention on Facilitation of International Maritime Traffic, 1965, as amended	Others	Acceptance
ARG	Argentina	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971	Liability and Compensation	Not known
ARG	Argentina	Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971	Liability and Compensation	Not known
ARG	Argentina	Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971	Liability and Compensation	Accession

ARG	Argentina	Protocol of 2000 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1972	Liability and Compensation	Not known
ARG	Argentina	Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992	Liability and Compensation	Not known
ARG	Argentina	International Conference on the Safe and Environmentally Sound Recycling of Ships	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996	Liability and Compensation	Not known
ARG	Argentina	Protocol of 2010 to amend the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996	Liability and Compensation	Not known
ARG	Argentina	Convention on the International Mobile Satellite Organization	Uncategorized	Accession
ARG	Argentina	Operating Agreement on the International Mobile Satellite Organization	Others	Signature
ARG	Argentina	1994 amendments to Inmarsat Convention	Uncategorized	Acceptance
ARG	Argentina	1998 amendments to Inmarsat Convention	Uncategorized	Acceptance
ARG	Argentina	2006 amendments to IMSO Convention	Uncategorized	Not known
ARG	Argentina	2008 amendments to IMSO Convention	Uncategorized	Acceptance
ARG	Argentina	International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969	Environment / Prevention of Marine Pollution	Accession
ARG	Argentina	Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973, as amended	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended	Environment / Prevention of Marine Pollution	Accession

ARG	Argentina	1978 amendments	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	International Convention on Load Lines, 1966	Maritime Safety and Security	Acceptance
ARG	Argentina	Protocol of 1988 relating to the International Convention on Load Lines, 1966	Maritime Safety and Security	Accession
ARG	Argentina	Convention on Limitation of Liability for Maritime Claims, 1976	Liability and Compensation	Not known
ARG	Argentina	Protocol of 1996 to amend the Convention on Limitation of Liability for Maritime Claims, 1976	Liability and Compensation	Not known
ARG	Argentina	Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, as amended	Environment / Prevention of Marine Pollution	Accession
ARG	Argentina	Annex III of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended	Environment / Prevention of Marine Pollution	Acceptance
ARG	Argentina	Annex IV of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended	Environment / Prevention of Marine Pollution	Acceptance
ARG	Argentina	Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended	Environment / Prevention of Marine Pollution	Acceptance
ARG	Argentina	Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto	Environment / Prevention of Marine Pollution	Accession
ARG	Argentina	Nairobi International Convention on the Removal of Wrecks, 2007	Liability and Compensation	Not known
ARG	Argentina	Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971	Uncategorized	Accession

ARG	Argentina	International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990	Environment / Prevention of Marine Pollution	Ratification
ARG	Argentina	Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000	Environment / Prevention of Marine Pollution	Not known
ARG	Argentina	Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974	Liability and Compensation	Accession
ARG	Argentina	Protocol to the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974	Liability and Compensation	Accession
ARG	Argentina	Protocol of 1990 to amend the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974	Liability and Compensation	Not known
ARG	Argentina	Protocol of 2002 to the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974	Liability and Compensation	Not known
ARG	Argentina	International Convention on Salvage, 1989	Others	Not known
ARG	Argentina	International Convention on Maritime Search and Rescue, 1979	Maritime Safety and Security	Accession
ARG	Argentina	Torremolinos Protocol of 1993 relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977	Uncategorized	Not known
ARG	Argentina	Cape Town Agreement on the Implementation of the provisions of the Torremolinos Protocol of 1993 relating to the International Convention on the Safety of Fishing Vessels, 1977	Maritime Safety and Security	Not known
ARG	Argentina	International Convention for the Safety of Life at Sea, 1974, as amended	Maritime Safety and Security	Ratification
ARG	Argentina	Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974	Maritime Safety and Security	Accession
ARG	Argentina	Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974	Maritime Safety and Security	Accession
ARG	Argentina	Agreement concerning specific stability requirements for ro-ro passenger ships	Uncategorized	Not known

ARG	Argentina	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended	Maritime Safety and Security	Accession
ARG	Argentina	International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995	Maritime Safety and Security	Not known
ARG	Argentina	Special Trade Passenger Ships Agreement, 1971	Uncategorized	Not known
ARG	Argentina	Protocol on Space Requirements for Special Trade Passenger Ships, 1973	Uncategorized	Not known
ARG	Argentina	Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation	Maritime Safety and Security	Ratification
ARG	Argentina	Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf	Maritime Safety and Security	Ratification
ARG	Argentina	Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation	Maritime Safety and Security	Not known
ARG	Argentina	Protocol of 2005 to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf	Maritime Safety and Security	Not known
ARG	Argentina	International Convention on Tonnage Measurement of Ships, 1969	Maritime Safety and Security	Acceptance

Figure 1: “Status of IMO Treaties/Argentina”, extract of the GISIS: Country Maritime Profile (IMO, 2021).

3.3 National Law 18.398 “General Law of the PNA”

In 1969, the President of Argentina issued Law 18.398 “General Law of the PNA” (Ley 18.398, Ley General de la Prefectura Naval Argentina) and designated the PNA as a Security Force. This General Law, in Title I, Chapter III, Article 4 expresses in detail the entire jurisdiction of the PNA and Chapter IV, Articles 6, 7 and 8 contains an extended list of the main and auxiliary functions of the PNA.

The General Law is the principal instrument given to the PNA. It provides a well-defined frame that points out the specific activities designated to the PNA in the jurisdictional area. It also

provides duties and responsibilities as well, structure and organization, the legal condition of the personnel that belong to the PNA and based on this condition, rights and obligations. The structure of the General Law is divided into seven Titles, 19 Chapters and 99 Articles and 4 Annexes that have been modified due to the separation from the Argentine Navy in 1982 and the incorporation to the Security Minister.

Since the General Law was issued, Article 4 designates to the PNA the responsibility for the enforcement of international conventions about safety of life at sea, safety of navigation and safety transportation of goods. Furthermore, the provisions of Article 6 related to the functions, oblige the PNA to “understand” about the removal of shipwreck from national and international flag, sunk, stranded or grounded ships or those that are considered an obstacle for safety of navigation in jurisdictional waters, as defined by UNCLOS. Additionally, Article 7 mentions that it is the responsibility of the PNA to establish the control of any activity of wreck and salvage, regardless of the responsibilities of the customs in case of illegal goods. In the same way, Article 11 mentioned explicitly that the technical approval and control of ship breaking, and wreck removal will be as well, responsibility of the PNA. The highlighted articles issued in 1969, have created until the current time a framework between the PNA and the domestic law suitable to be applied among the Maritime Administration.

3.4 National Law 20.094 “Navigation Law”

The Law 20.094 Navigation Law (Ley 20.094 Ley de Navegación) in conjunction with the legislation mentioned above are the principal components of the structure and organization of the PNA. The Navigation Law was issued in 1973 by the president of Argentina and contains 6 Titles, 18 Chapters, 60 Sections and 620 Articles. The difference between the Navigation Law and the General Law are based on the power. The Navigation Law covers the legal aspect of the shipping and the navigation in all jurisdictional waters and the General Law highlights a legal framework for the PNA. In Title I, Article 1 the Navigation Law (1973) expresses “all the legal relationships originating in navigational waters are governed by the rules of this law...” and adds the concept of “the complementary laws and regulations and by the uses and customs...”. The following Article 2 provides the definition of ship, created to navigate and naval artefact, as an auxiliary of navigation but not created with this aim and Article 3 sets out the difference between private and public ship. It explains that the public ships are those affected to fulfil public service and the private ships are all the rest of the ships. The exceptions are specified in Article IV, excluding the scope of the Navigation Law, military and police ships.

The navigation of the waters is established by the National Authority or, specified by Provincial Authorities but despite this provision, any administrative act related to the navigational waters shall be confirmed by the National Executive Power, in the last instance.

Section II is the first approach from the domestic law of Argentina to the legal process of wreck removal. Article 17 clearly expresses that the wreck declared as an obstacle of navigation or endangering the safety of navigation has to be removed. This article details the duties of the Administration and the legal process that has to be followed by the owner to accomplish the removal and explains the official communication that has to be conducted to the Embassy, based on the domestic law of Argentina.

The concept of abandoned ship is mentioned in Article 18. It explains that the abandonment of the ship by the owner could be carried out when the owner affirms that it is not able to afford the removal operations, giving the property to the State through the signing of the official documentation. The State does not accept the abandonment of the ship as limitation of liability and, the State is not obliged to accept it when the owner has acted by fraud and was aware of the high possibility of damage. The abandonment of the wreck (given to the State) is accepted as a limitation of liability for the costs of the wreck removal operation, following the legal process mentioned before. The only case of abandonment that takes place without any agreement with the legal responsible owner of the ship is when there is no opportunity to contact it, so in this case the wreck automatically and after a long process belongs to the State.

3.4.1 The Role of the Maritime Authority

The Article 21 of the Navigation Law establishes that every single activity, in internal waters until the territorial sea, of the removal of wrecks shall be authorized by the Administration, including the periods of operations, the conditions of work and the supervision. If the wreck is declared an “insurmountable” but at the same time is directly affecting the safety of navigation, it will be removed by ex-officio under the action of the Administration.

The provisions of Article 23 refer to the cost of the wreck removal operations and sets out that, if the owner is not able to afford the total cost of the operation after the period established by the Administration, it will automatically be auctioned for the Public Administration. The money obtained from this procedure will be used to cover the total cost of the operation including port charges and PNA operations. In the case of remaining money, it will be deposited to the owner for a period of 2 years and once finished this period, it will be allocated to merchant institutions

(Article 369). The final disposition of the wreck is in the first instance following the mentioned provisions; moreover, depending on the conditions of the wreck, it could be given to any Governmental Institution to positively be used (PNA, Navy, Academic Institutions).

In addition to the above-mentioned information, the Title III, Chapter III, Section 3rd of the Navigation Law is providing in detail the legal treatment of a wreck and legal guidelines for the wreck removal process (Article 387 to 398). In the commencement of this section, the Article 388 expresses the clear right of the Captain to always proceed with wreck removal operations, with previous authorization of the Administration. In case of granted authorization, the owner has the right to proceed with the operation, but if a third party (with legal authorization) has commenced the operations, the Captain could assume the operations after the payment of a compensation for the invested costs. It is called “right of preference”⁸ and it is the provision of Article 390. In the scenario of a successful operation, the legal person responsible for the operation can claim the payment before delivering the wreck to the owner. The customs, depending on the ship, are able to take part in the process under the coordination of the Administration. In any case or scenario, the person or company in charge of the operations shall receive payment for the accomplished activity.

The insurance procedures are also covered by this domestic law. If the ship is considered a wreck and the P&I, through an official communication to the owner assume the wreck removal operations, the abandonment by the owner cannot take place for 60 days counting since the date of the incident. The Navigation Law is covering most of the aspects in the case of the activity of wreck removal, but in the case of foreign flags the only tool that the Administration has to push the owner to proceed with the wreck removal is through the Embassy, based only on domestic law.

⁸ “right of preference”, called “derecho de preferencia”, is given to the first person or entity to find or claim the shipwreck, to remove it but it still recognizes the rights of the owner of the sinking ship. It is for that, the owner to assume the activity shall pay a compensation to those who took the activity first.

CHAPTER 4

4 Description of Shipping, Ports and Wreck Removal in Argentina

4.1 Shipping activity and Ports in Argentina

Argentina during the 1930s used to be called “the barn of the world”, having the seventh largest economy in the world (Punnet et al, 2006) and the port of Buenos Aires, capital city of the country, was having the majority of the shipping activities.

The ports across Argentina are working under the supervision of the General Administration of Port and the Sub-Secretary of Ports and Waterways that responds to the Ministry of Transport. The Ministry of Transport is a national executive power responsible for the establishment of the fare and the conditions of the transport by land, sea and air entering the country, including national and international shipping.

The distribution of the 43 main ports in Argentina is as follows: Eight are under the supervision of the provincial administration and the rest operated by the private sector. The statistics provided by the Ministry of Transport showed that in the period January to May 2021 the movement of general cargo and bulk carriers represented a total of 725,2 thousand tons. The container ships represented a total of 77,9 thousand TEUs and the transport of liquid a total of 299 thousand tons (Ministry of Transport, 2021).

Buenos Aires Port received a total of 678 vessels (national and international). The total number is composed of 332 international vessels and 346 from coastal trade (Ministry of Transport, 2020), thus it positions the Buenos Aires Port as the most important port in Argentina. The benefits of Buenos Aires Port is the proximity to the city and daily activity because different transportation modes have many routes to reach the port making the process fast and efficient.

Rosario and San Lorenzo Ports are receiving part of the main shipping activities after Buenos Aires Port, both of which are located in the Parana River, just 50 kilometres away from each other and almost 300 kilometres north from Buenos Aires city. Rosario Port has the capacity to store 2.361.000 metric tons and charge 1.900 metric tons of grain per hour. In the case of San Lorenzo Port, it is composed of many private companies trading grain and vegetable oil. The storage capacity is about 95.000 metric tons, and the rhythm of charging is 900.000 metric tons per hour (infocampo, 2021).

The ports located to the south of Buenos Aires, Mar del Plata and Bahia Blanca Ports have direct connection with the Atlantic Ocean, which means that the access to them presents less difficulties than the port of Rosario o San Lorenzo located on the edge of the Parana River. Mar del Plata Port is, in similarity with Buenos Aires Port, nearby the city and it is the most recognized port in terms of fishing activities. The storage capacity is 25.000 metric tons of grain generally and charge time per hour is 800 metric tons. Bahia Blanca Port, located 470 km south of Mar de Plata Port, is the port with the deepest draft in Argentina and covers a surface area of 25 km along the coast. It operates the trade of grain, gas and oil with the capacity to charge 1.900 metric tons of grain per hour and storage 660.000 metric tons. Figure 1 shows the location of these ports (Infocampo, 2021).



Figure 1: Map of Argentina and the main Ports

4.2 The Features of the Jurisdictional Waters

The southernmost country in the southern hemisphere and bordering Chile in this region, Argentina is a strategic piece of land to cross the American continent from the Atlantic to the Pacific Ocean and to reach the Antarctic crossing the Drake Passage.

Starting from the north to the south, the waterways moving across the ports mentioned above are, Parana River, de la Plata River and the Atlantic Ocean. The Parana River is a system draining de la Plata River, "it is 3,032 miles (4,880 km) long and extends from the confluence of the Grande and Paranaíba rivers in southern Brazil" (Stewart, 2021). The area including San Lorenzo Port and Rosario are part of the Parana Basin. This lower part of the river is a route of international trade for agriculture, manufactured goods, oil and irrigation for the adjacent farmlands. The majority area of the route is narrow and the average draft of the navigational channel of the river is 11 meters and a width fluctuating between 100 and 200 meters approximately (Boletín Fluvial, 2021).

De la Plata River is a shared area with Uruguay and is drained by the Parana and Uruguay River. The MoU De la Plata River and its Maritime Front⁹ establishes a particular territorial water and "common zone", dividing the river in the superior and middle strip. The superior strip establishes 2 nautical miles of territorial water and the common zone 7 nautical miles adjacent to the baseline of both countries. The area of water in between Argentina and Uruguay is denominated "common use waters" and it is extended from the exterior limit of De la Plata River, an imaginary line that joins Punta Lara (Argentina) with Punta del Este (Uruguay), to the parallel called Punta Gorda. The MoU has established at the same time specific areas of discharge ban, common fishing activity and the EEZ from each State, explained in Figure 2. In the same way, it has created an Administrative Commission to coordinate and control at management level the requirements of both States; it is the key to accomplish international shipping for both countries.

In this regard, it is important to mention that Uruguay ratified the WRC, becoming the first IMO Member State from South America to accede to the Convention, triggering more States to analyze the output and evaluate the possibility to ratify it as well (R.O.U, 2020).

⁹ Argentina and Uruguay since 19th of November 1973 have established a legal framework for environmental protection and sustainable development of the resources using the De la Plata River called "Tratado del Río de la Plata y su Frente Marítimo". (CARP, 2021).

Mar del Plata Port is located to the southeast of the Buenos Aires province, exactly 415 km from Buenos Aires Port and located in the southern area of the Province of Buenos Aires, the Bahía Blanca Port. Mar del Plata is a famous touristic place in Buenos Aires due to the beach area that during 2005 and 2012 it recovered more than 30.000 m² of interior surface and 300 meters of front dock approximately after a wreck removal operation conducted by the PNA (Transport y Cargo, 2011). The Port is divided into North and South Area and is able to store 25.000 metric tons of grain and charge 800 tons per hour. The North Area consists of 1.050 meters of dock and the South Area of 2.750 meters with an overage draft of 10 meters (El Consorcio, 2021). On the other hand, Bahía Blanca Port is located in such a protected region due to the shape of Buenos Aires Province and it is required to sail a short passage to access it. The Port is divided into 4 different ports, being the Ingeniero White Port the most active with 15 meters draft, a storage capacity of 435.000 metric tons and a capacity of charging of 1.400 metric tons per hour.

COMPARATIVE MAPS OF TRATADO DEL RÍO DE LA PLATA Y SU FRENTE MARÍTIMO

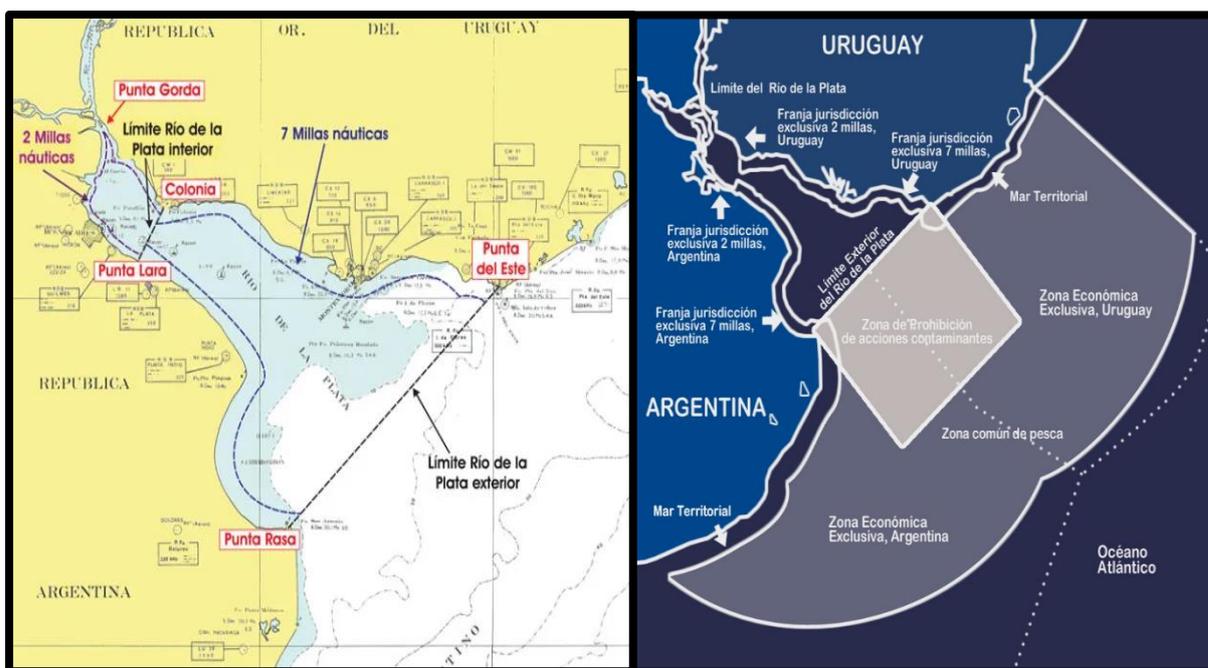


Figure 2: Map and graphic of “Tratado del Río de la Plata y su Frente Marítimo” with landmarks and imaginary lines between Argentina and Uruguay. (CARP, 2021).

4.2.1 Territorial Water, Contiguous Zone and EEZ

Argentina, before the entry into force of the UNCLOS, issued in 1991 the Law 23.968 and established “the outer limit of the Argentine continental shelf up to the outer edge of the continental margin or up to 200 miles when the outer edge was below these limits” (Argentine Submission, 2009). UNCLOS entered into force for Argentina on December 31 in 1995, but in 1991 Argentina established the outer continental shelf limits in compliance with the Convention as adopted in 1982 at Montego Bay. In this regard the territorial water, the contiguous zone and the EEZ of the country are based on UNCLOS provisions.

The ships with the intention to reach Buenos Aires Port have to sail along the de la Plata River. Mar del Plata Port is located in a region with direct access to the Atlantic Ocean, and at the same time, both ports present different scenarios due to the features of the water and the coastline.

De la Plata River is the “the widest River in the world, stretching 220 kilometres (136 miles) where it meets the Atlantic Ocean” (NASA, 2006) and at the same time “it is a hazard to navigation and must be dredged periodically in order to keep the port of Buenos Aires open for shipping” (NASA, 2006). The surface area covered by the Treaty is 3.100.000 km² and 320 km length (EcuRed, 2021). It is mandatory to take a pilot to enter Buenos Aires Port and, if the ship escapes the navigation route or channel, the depth could reach one- or two-meters depth, even outside the water of Rio de la Plata Treaty.

On the other hand, Mar del Plata Port has increased depth in the territorial waters, but it is required to take pilot and tug to enter the port. The direct connection with the Atlantic Ocean makes the approach to the port easier and the depth from the territorial water to the outer limit of the EEZ goes from 50 to 1.300 meters. In general, the maximum depth of the Argentine jurisdictional water is 2.300 meters, its average depth is approximately 1.200 feet and could be described as “...one of the world’s biggest national maritime zones and it occupies an area of about 390.000 square miles” (WorldAtlas, 2021).

The description of both scenarios explains that, depending on the location of the shipwreck in an area beyond and adjacent to the territorial sea, the operation of wreck removal could be feasible in comparison with an area near the outer limit of the EEZ.

4.3 Introduction to a Hypothetical Case

The analysis of a hypothetical scenario, including the most difficult conditions, would be the triggering to new perspectives. One of the last and most controversial real cases in Argentina was the sinking of the fishing ship *Repunte* in June 2017. The wreck was found by the PNA “36 nautical miles north of Rawson's coast for reasons not yet known in a depth of 53 meters” was published by vesseltracker.com in July 2017. In this case, 7 crew members still missing, 2 were found alive and 3 were found dead of a total of 12 seafarers.

If a container ship with foreign flag sinks in the adjacent water of the territorial sea in the area of Buenos Aires or Mar del Plata, the average depth in De la Plata River could fluctuate between 20 to 100 meters and 29 to 90 meters in the area of Mar del Plata, in direct connection with the Atlantic Ocean.

The hypothetical case will be focused on the adjacent waters of the most active port of Argentina, Buenos Aires Port. Based on the current legislation of Argentina (bilateral and domestic), if any ship with foreign flag sinks in waters covered by the MoU between Argentina and Uruguay, the country of the port of destination is whoever should take action. It is important to highlight that the following case analysis will commence with a sunk vessel, not with a vessel in distress because in this particular scenario, the State who receives the first communication is obliged to act immediately despite the location nearby.

In the hypothetical case to be developed, a container ship flying a European Union flag, from a nonparty State of WRC, sailing to Buenos Aires with an Argentine pilot sinks in De la Plata River and the PNA (by designated obligations), is the first responsible for responding under the provisions of the Navigation Law. The container vessel suffered fire on board and an explosion; the ship activated on time the alarm of distress and the crew finally abandoned the ship. The Vessel Traffic Service (VTS) of Argentina detected the last sign and location of the ship, 20 miles northwest of Punta Raza (Argentina-Buenos Aires), a protected area from pollution (De la Plata River Treaty) inside the EEZ of Argentina, as shown in Figure 2. for the marine environment. The traffic in the region is intense and it is prohibited to contaminate and because of that the PNA has determined the sinking ship as a wreck, an obstacle for the safety of navigation and a hazard

REPRESENTATION OF THE AREA OF THE HYPOTHETICAL INCIDENT

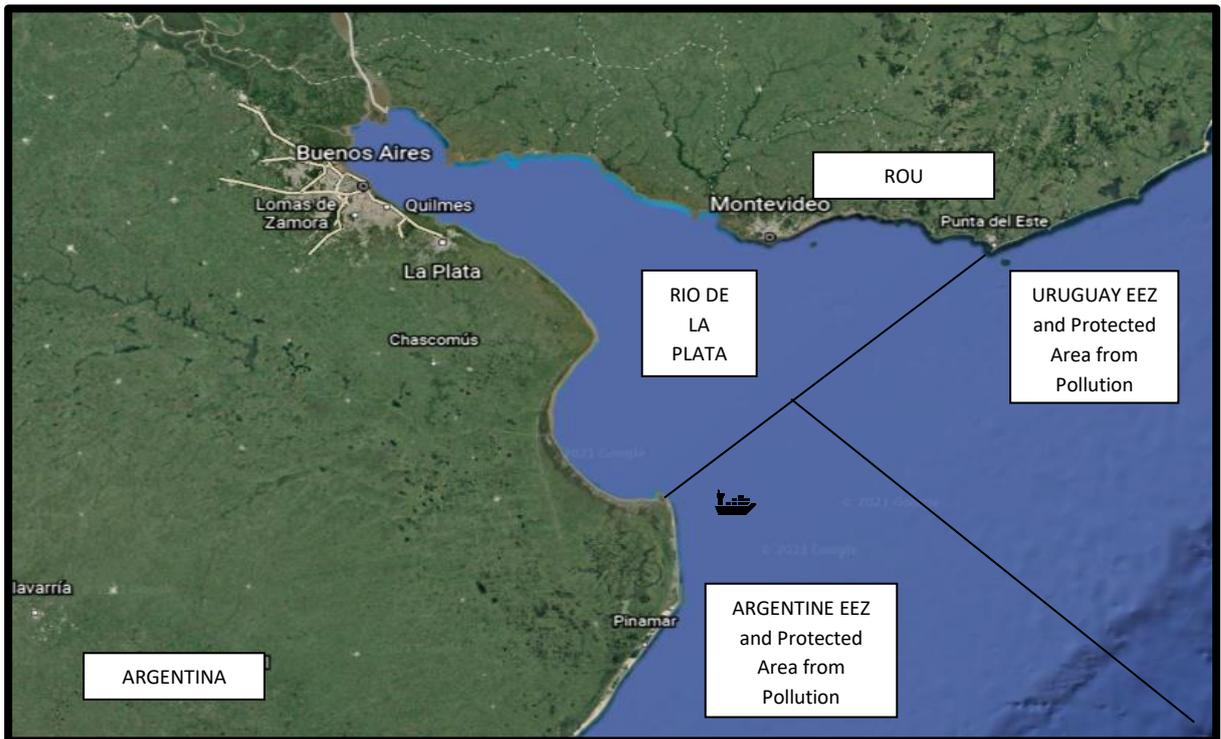


Figure 3: Representation of the Area of the incident (By the author).

4.3.1 Responsibilities and Power of the Administration

The details of the responsibilities and power of the Administration are described in the Navigational Law of the domestic legislation. The power of the Administration to claim action on the wreck is addressed to the owner through the Embassy, which means that the PNA has determined that the sinking ship is, even an obstacle for the safety of navigation and/or harmful for the environment and it is required that it should be removed. The wreck removal activity period is established by the Administration and the PNA is the designated authority to issue the official communication and supervise the operations. Following one organized scenario, the owner has the capacity to afford all the cost and the wreck is removed from the location by a private company and allocated in a safe place or specific area to finish it with the final stage. It could be transported to the flag state or allocated in a pre-arranged area in the port of destination.

This first hypothetical case is an unrealistic ideal scenario due to the acceptability of resolution because the insurance required by the Argentine Navigation Law does not mention specifications regarding the removal of wreck covered by the P&I. It demonstrates that in a real case of a shipwreck in the adjacent area beyond the territorial waters of Argentina, the owner will use the concept of “abandoned ship” to the Administration because the insurance will not be able to afford the total wreck removal operation, just the compensation for the loss. In this case, after signing the official documentation between the owner and the Administration, the shipwreck will belong to the State who will continue with the operation of the wreck removal, most specifically the PNA.

In the current time and with the increased sizes and features of the shipping industry, the legal approaches must be coordinated internationally to face situations, such as the removal of wrecks without the support or intervention of the P&I Clubs and the specific insurance to cover this activity. It is clear that without the support of the WRC instrument, just the provisions of the Argentine domestic law are the instruments to push one of the costly activities in shipping, the wreck removal.

4.3.2 Wreck Removal in Territorial Waters

During the period 2005 to 2012, the PNA conducted the most significant campaign and removed a total of 29 old wrecks in Mar del Plata Port. The campaign was led by the PNA in conjunction with the Mar del Plata Port Authority and the Ministry of Production of Buenos Aires Province. The result was the recovering of more than 30.000 m² of internal area of the port and more than 300 meters of frontal pier approximately (Nuestro Mar, 2011), but the first campaign took place during the years 1997-1998 with 3 old wrecks in the same port.

In 2010, the Ministry of Security, the PNA and the ACUMAR (Asociación CUenta MATanza Riachuelo) an association in charge of the administration of the Riachuelo (interior River in Buenos Aires), signed an agreement to remove a total of 31 old wrecks in charge of the PNA and pushed the owners to remove the number of 25 old wrecks. In 2021, the last old wreck from the agreement was removed with a total of 56 old wrecks during the period 2010 - 2021 (El Dia, 2021). It demonstrates that the Administration, based on the capacity and logistics of the PNA and the private sector, was able to face wreck removal operations in territorial waters with a successful result. Further, the institutions were able to afford the cost and the benefits were sufficient enough from the environmental and financial perspective. The extended period of time comparing the Mar del Plata and Riachuelo campaign revealed that the removal of

wrecks is increasing the cost and the resources need to be updated and adapted to the evolution of the activity.

4.4 The Hypothetical Case Based on Real Conditions

In the second scenario, the sinking ship with the European Union flag is determined as a wreck by Argentina and it is required by the domestic law to be removed as soon as possible. The different stages of the case started with official communications and the procedures described in the Navigation Law.

The communication with the embassy will be the first formal step to formally acknowledge the owner the obligation to remove the wreck. The ship is more than 300 gross tonnage, but the insurance is not covering the arrangements required by WRC and there is no certificate from the State party attesting such available insurance. The domestic law underpins the liability on the owner or registered owner of the ship to proceed with the operation. The negotiation between the owner and the insurance concluded in the use of the “abandoned ship” concept determined by the provisions of the domestic law¹⁰. The abandoned wreck is in the State’s possession and the navigation Law provides that the PNA has the authority to continue with the process. Since the updated legislation, the PNA is empowered to call for a tender to open the market to the private sector, so the company who wins the tender will be in charge of the operation under the supervision of the PNA; moreover, the PNA could assume the total activity of the wreck removal.

On the other hand, and by governmental decision, the PNA could assume the activity “de oficio”¹¹ and proceed with the entire operation and claim to the owner to afford the cost. If the owner (not using “abandonment”) denies the payment or part of it, the State will proceed with the selling of the scrap metal to recover the cost of the wreck removal and final disposal (Villano, 2008).

¹⁰ The period of time established in Art. 17 of the Navigation Law to commence the operations is not less than 2 months but not more than 5 years. The concept of “abandonment” is described in Art. 19 in the same regulation.

¹¹ “de oficio” is a process detailed in the Art. 16, is the legal power to act when the owner breaches the provisions of the domestic law.

Continuing with the stages of the case, the ship is sinking in a depth of 23 meters and the situation is more complex than working in internal waters. The technical area of the PNA assesses the scenario and their own capacities to face the operations from the logistic and financial perspective.

Regarding the location of the wreck and the requests of Uruguay to remove the sinking ship, the long process to include the private sector is discarded at the beginning by the Legislative Power, so it is the PNA who is responsible for the whole process of wreck removal.

The sector of the PNA able to face the operation is the Salvage, Firefighting and Pollution Control Service, under the command of the Direction of Operations. This technical area should issue the budget, identify the equipment, the personnel and establish a potential period of time to finish the activity in the area. The operation includes the removal of the environmental threats, in this case the oil inside due to the hazard of pollution in a potential spill, the cargo recovery operations based on the concept of safety of navigation due to the shallow water, the extraction and moving of the wreck and the final disposal of the scrap metal that “include dealing with the aftermath of marine calamities” (ISU, 2020).

The most practical resolution would be if the sinking ship recovers the flotation capacity and it is able to be tugged to the port; both procedures solved by the PNA. This resolution allows the State to assess the condition either to repair and incorporate it as a part of the logistics or, open an official auction to recover the invested budget.

Another resolution points out the necessity to incorporate the private sector. It could happen by a Governmental decision or because the capacity and resources of the PNA are not able to face the operation. The private sector now assumes the operation and the PNA just supervises the activity.

The designated company fulfilled the float condition of the wreck, but it is necessary to cut the wreck in two or more pieces to be removed.

An example of the process is well defined in the wreck removal operation of the *M/V Golden Ray* on the coast of Georgia, USA. The sinking car carrier ship was planned to be cut in eight parts after it had been declared a total loss. The operation started in September 2019 and it will possibly be the most expensive wreck removal after *the Costa Concordia* (Lawrence, 2021).

The following step to cut the wreck requires an increment of personnel, equipment and detailed analysis of the operation. The costs of the hypothetical case have been duplicated but the

operation must be finished, the movement was approved by the PNA and the first cut piece of the wreck is ready to be transported to a safe area.

The majority of the ports near the incident area are private and due to the cost and the environmental hazard that the wreck represents, it is difficult to find a proper place for the wreck. The negotiation with the local authorities finally concluded that they would provide a safe place for the different pieces of the wreck and receive the payment at the end of the whole operation.

The final cost of the hypothetical wreck removal operation exceeded the available budget of the PNA, the Ministry of Security and the Maritime Authority. The invested Argentine Government money on the operation overcame the obtained income through the auction and selling of scrap metal. The wreck represented a total loss for the owner, the company and the coastal state, in this case the Argentina State responsible for facing the wreck removal and unable to claim the costs to any foreign insurance.

CHAPTER 5

5 Conclusions and recommendations

5.1 Conclusion

The analysis of the existence of wrecks and the subsequent developed legislation to deal with it has been taking power and concluded with the creation of the WRC in 2007 and later approval in 2015. Establishing a wreck as an obstacle for safety of navigation or/and a hazard for the environment determines the importance of removing it from the water, including the old wrecks. The WRC is a convention establishing a civil liability regime in case of wreck removal and it has similarities and common points with other conventions covering civil liability in case of damages to marine and environmental protection arising from shipping. These are the 1992 CLC, the Bunker oil Convention and even the not yet approved HNS Convention, all of which highlight similar structure in civil liability.

The advantages of the WRC are based on the establishment of a mandatory wreck removal insurance cover for the wreck removal operation, the extended jurisdiction of the convention to the EEZ and the opportunity to sign it including the territorial waters. These advantages provide the coastal state power to take action on any shipwreck located beyond their territorial waters. At the same time, shipowners of 300 GT ships or more where the State is part of the WRC and ships moving in the territorial waters or EEZ of a signatory State should have a wreck removal insurance or financial support that meet the provisions of the WRC. The definitions provided by the WRC determine “strict liability of the shipowner for the cost of locating, marking and removing of wreck, but subject to limitation of liability law” (The Impact, 2014).

The importance of determining the removal of a wreck under the condition of it being an obstacle for safety of navigation or/and an environmental hazard are based in the analysis of real scenarios. The case of the collision of the *M/V Tricolor* in 2002 united both scenarios and demonstrated the high risks and further consequences for the coastal state. In the same way the abandonment of the shipwreck could be analysed. International and many domestic laws have developed a clear definition of abandoned ship and have taken action to find the advantages of the concept. In Argentina the right of abandonment is a tool used to define responsibilities and accelerate the resolution of the removal of the wreck, but the scenario of the abandonment could exist by a vanished owner that will provoke a total loss of money for the State.

The domestic law of Argentina, through the creation of the Law 20.094, Navigation Law, in 1973, covers many liability aspects in wreck removal scenarios. The Navigation Law aims at the Administration and the PNA as the responsible parties to face the issue of wreck removal and establishes liability between the owner or legal representative and the PNA. In this regard, the PNA is the entity that will lead with the wreck removal when the ship owner decides to abandon the ship, when it cannot afford and even when a private company assumes the operations.

The legal power to cover all the mentioned activities and the designated Administration activities is given by Law 18.398, General Law of the PNA, issued in 1969, even before the Navigation Law. In this regard, the PNA is covering the majority of the responsibilities of the Administration of Argentina, under the supervision of the Ministry of Security and in conjunction with two more different Ministries, the Ministry of Defense and the Ministry of Federal Planning, Public Investment and Services.

Argentina is the southernmost country in South America and has 43 main ports. The capital city is Buenos Aires, and it contains the main shipping activities. The access to Buenos Aires Port is along the De la Plata River in connection with the Atlantic Ocean and it separates the country from ROU. Both countries are sharing the De la Plata River and signed an MoU to determine the obligations and responsibilities on it. At the same time, the MoU establishes from the baseline territorial water, EEZ and pollution protected areas. It is important to highlight that ROU is the first Latin American State to ratify the WRC encouraging border countries to be part of the Convention.

The hypothetical case described in this document is an analysis of the benefits and disadvantages that the Administration will be able to face following the provisions of the domestic law. If a 300 GT ship or more sinks in the Argentine EEZ in the region near the De la Plata River, the operations of locating, marking and removing the shipwreck will be costly and under Argentine domestic law, it will be the responsibility of the owner to proceed with the operations unless the PNA proceed “de oficio”. The case represented three stages, the first without investment from the State, the second with the full intervention of the PNA in the operations and the third with the final intervention and assumption of the private sector.

The first one is an unrealistic scenario that represents the result of being part of WRC, which is not the case of Argentina but could be the case of an ROU scenario.

The second one is describing the full intervention of the PNA, representing a total investment of the State to proceed with the wreck removal operation. The result of the scenario makes the

State realize that the resources of the Administration are not enough to face such a complex and costly activity without the support of the insurance requested in the WRC.

Finally, the intervention of the private sector and the accomplishment of the operation after exhausted negotiations and long activities result in a total loss of funds from the State. This balance was the result of following the domestic law and the lack of tools to claim liability (lack of wreck removal insurance) to the owner or P&I in case of wreck removal. The private sector received payment based on the accomplished activities (shipwreck) but the State lost money, resources and time due to the obligations given by the General and Navigation Laws.

5.2 Recommendations

The domestic law of Argentina is providing a liability regime in case of wreck removal between the owner or legal representative and the PNA. At the same time, the Navigation Law is establishing the obligation to have insurance according to the arrangement between the insurance and the insured. It is providing the right of abandonment as well to the owner when it is not able to afford the cost of the activity, subsequently the insurance has the right to deny liability to the owner and abandon the shipwreck to the State (Argentina). Like what is described in the document, the entire responsibility of the wreck removal falls on the PNA and it relinquishes the full operation to a private sector, but everything is on behalf of the resources of the State with no tools to claim the total cost of the activities. The potential recommendations are as follows:

- The domestic law should be modified to incorporate the provisions of a solid and particular insurance from P&I coverage in case of wreck removal in territorial waters and EEZ, when it is determined as an obstacle for safety of navigation and environmental hazard or, if the wreck is located in environmentally protected areas.
- The WRC should be ratified to have the international power to protect the Argentine Jurisdictional Waters and the resources of the State in case of wreck removal. By ratifying the WRC, the option of “opt in” is taken to establish a liability regime in Territorial Waters and EEZ in case of wreck removal and The Administration should request mandatory wreck removal insurance. The insurance will provide financial support to the shipowners and to the PNA when it acts “de oficio” regarding the conditions that caused the shipwreck.

It is important to mention that ratifying the WRC, the Administration will deal directly with the insurance or with the responsible entity to provide financial support in case of wreck removal. This procedure facilitates the communications and response between the actors and reduces the uncertainty time at the moment to designate who will pay for the operation. Additionally, it allows the Administration to save costs of operations and limits the action to the supervision of the activity.

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